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中国–欧盟社会保护改革项目

Component One

Study on Multi-Layer Social Security Systems in EU Countries

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Abstract[1]

Although concepts of social security in the EU countries is similar, their institutional structures vary greatly. Studying these similar ideas and different institutional structures and ways will help us to have a deep understanding of the compositions and causes of the social security system in the EU countries, so as to avoid simple and one-sided views and opinions.

In this research report, we first focus on the similarity of social security systems in the EU countries and try to introduce and explain the characteristics and origins of the systems in each country. Our first observation point is the structure of social security systems in the EU countries, focusing on pension systems. The second observation point is the reform trend of pension systems in the EU countries since 1990, and the impact of these reforms on the original institutions; meanwhile, the institutional changes that have taken place will also be evaluated. In countries where pension and health care systems are intertwined, this report will also cover health care systems.

The commonness of social security systems in European countries lies in the fact that the governments of various countries have successively assumed the social protection responsibilities of citizens in social domains for decades, especially in the realms of old-age care, medical care, unemployment, disability and childbirth. However, the fulfillment of these responsibilities takes different ways in different countries. For example, the pension system established by Germany takes the form of social insurance, which has been followed by many European countries. Most of the social insurance systems are funded by employers and employees in different proportions, with governments providing some financial support. However, the public pension system in the UK adopts the method where the government provides security and services directly to the citizens based on tax; the Netherlands implements a flat-rate public basic old-age security systm; some other countries adopt a mixture of the social insurance in German and the social security in UK, and retain their national characteristics.

Around 1990, with the development of economic globalization and a slowed economic growth in Europe, the challenge of an aging population is highlighted; the forms of employment is diversified; at the same time, the finance of public pension is constrained. The UK and other countries have slashed public pension payment standards, introduced and encouraged all kinds of occupational pension schemes, allowed more marketization of social demand and supply; even Germany and Franch and other countries where a social insurance system is implemented also face the risk of pension financial unsustainability, therefore they begin to explore lowering the replacement rate of pay-as-you-go public pension, and also try out "defined contribution" occupational or enterprise annuity, to make up for inadequacy of "defined benefit" pensions. As a result of the reform, another commonality in the social security system of EU countries emerged:

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[1] Author of this part: Zhou Hong.

the introduction of market mechanism to different degrees. In addition to the basic public pension system, according to different capabilities of enterprises and individuals, enterprise or occupational annuities and individual savings accounts as well as other pillars are set up, forming a multi-pillar social security system with different patterns and levels. Most of these occupational annuities and personal accounts are optional, but some are mandatory (such as in France) and semi-mandatory (such as in the Netherlands). There is no doubt that the emergence of multi-pillar pension system, especially the emergence of non-mandatory pension fund, means that the gap of pension income between social classes has increased. Six of the EU countries, including Germany, France, the UK[2], Italy, the Netherlands and Spain, are selected as typical cases, with emphasis on the analysis of the historical logics of the institutional system, and the reform since the 1990s, as well as the institutional construction after the reform. We focus not on individual projects, but on the structure of the entire institutions, in particular the share of different actors (government and enterprises in Europe) in the system, and the likely direction and trend of development.

Take Germany for example, Bismarck Model social insurance enables the replacement rate of pension to reach as high as 70%, and with other insurances such as health insurance, German workers' pension needs can be fulfilled. However, with the emergence of the above-mentioned social challenges, in order to maintain the replacement rate of 70% of the pay-as-you-go social pension insurance, Germany has to raise the insurance fees repeatedly until the red line of 20% of the pre-tax salary is exceeded. In this case, reducing the replacement rate and replacing it with other institutional arrangements have become an inevitable choice for the reform of the pension insurance system in Germany. Therefore, the gradual change of "the market goes further and the government steps back" appears in the German pension system, and the concept of "workfare" gradually permeates into social concepts. During the Schroder Administration, the government inintiated the non-mandatory "Riester Pension" and established the individual pension account to provide additional pension security for the insured, through accumulative funds operated by the market, to make up for the pension gap caused by the decline of replacement rate in pensions. Although the gap is not large, only reduced from 70% to 67%, it is still a structural change of the original social security system in Germany, which is not only in the field of pension, but also in the field of unemployment benefits and basic living allowance. Market factors began to penetrate into all fields of German social security; the power of the state did not "retreat" because of this, rather, it shifted to regulation and legislation. Therefore, the authors argue that Germany's social security system reform as "the market moves one step in but not at the expense of state", when the traditional supplier welfare state is transforming into regulator and guarantor welfare state.

France's reforms have similarities with Germany's. First of all, France has a complete social security system with high level of security and coverage. Meanwhile, compared with Germany, it is a highly fragmented and multi-track system. However, because it provides comprehensive security from cradle to grave, it was once praised as "French socialism". Within the system, the role of the

[2] At the time of this report, the UK has not yet completed its "Brexit", so we are still studying it as an "EU country".

market is negligible. Similarly, due to problems such as unbalanced population structure, slow economic growth and serious deficit in pension, France has carried out several rounds of reform on the basic pension insurance since 1993. On the one hand, it made some parametric reformes, and on the other hand, it introduced a funded pension system to change the then single-pillar system. After several reforms, the French pension system is composed with three pillars, the first pillar has two layers, namely, the mandatory pay-as-you-go basic pension insurance (replacement rate of 40-50%) and the mandatory pay-as-you-go supplementary pension insurance (replacement rate of 20-25%). With a combined replacement rate of 60-75%, and a subsistent non-contributory aid plan (known as the "zero pillar"), there is not much room for the market to play a role. The second pillar, the Enterprise Collective Retirement Savings Plan (PERCO), and the third pillar, the Individual Retirement Savings Plan (PERP), are nearly insignificant in the overall pension system. In 2005, France's public pension accounted for about 87% of total personal pension income, while the funded pillar accounted for about 3%. During the same period, Germany's public pension accounted for about 70% and Britain's less than 50%. The main advantage of the French system is that the poverty rate for the aged is only 4%, well below the OECD average of 12%. Because of the widespread recognition in French society that the state plays a leading role in the pension system, the ambitious “Macron Reform” does not focus on deficit reduction and fiscal sustainability. Instead, it proposes to integrate the fragmented institutions and to create a new system that is unified, just and transparent.

The UK (still a member of the European Union at the current stage) is another example of the European welfare state. The early British welfare state was a model of universalism, equality and unified administration, but it was also the earliest country to carry out structural system reform. Since the 1980s, the government has gradually transitioned from a “dominant responsible” government to a “moderately responsible” in the field of social security, transferring responsibility to individuals and enterprises at a relatively small cost. The current British pension system consists of three levels or pillars: public pension, occupational pension and private pension. The public pension system is a low level generalised system of preferences (GSP) system, covering a wide range but with limited protection, having good equity but insufficient adequacy. Its gross replacement rate is only 22.1% in 2016, less than half of the average of the EU countries. Correspondingly, the British occupational pension is more common, especially after 2012, when it introduced the "Auto Enrolment" mechanism, where that all employers must provide occupational pensions to employees conforming to the condition of a certain age and income. It means that this mechanism has changed from voluntary into half-mandatory. Voluntary private savings pensions, meanwhile, are more widely available, easing the shortage of public pensions. Together with the traditional British subsistence allowance and National Health Service that benefits all people, the social security system with British national characteristics has been formed.

Italy implements a mixed social security model. Early on, Italy followed the Bismarck Model by establishing a pay-as-you-go pension scheme for employed workers. Italy's pension system was already fiscally unsustainable in the 1980s, but party politics prevented reform in the pension system.

In the 1990s, Italy's public pension system was still absolutely dominant, with the replacement rate reaching 95% or even 100% of the last month's salary before retirement in the public sector, and the replacement rate in the private sector reaching 80% of the average salary of the last five years. In this case, the supplementary pension system was seriously underdeveloped, with great occupational differences, uneven pension standards and significant unfairness. Moreover, the management and administration were inefficient, and the phenomenon of unpaid contributions and impostor was serious. After 2000, Italy has promoted the development of open-end funds and individual supplementary pension programs through tax incentives. The current Italian pension security system presents an immature three-pillar system. The first pillar is statutory public pension plan with two layers: first layer is non-contributory pension assistance, which includes social allowances and pension income subsidies; the second layer consists of mandatory pay-as-you-go pension insurance. The second pillar is supplementary voluntary occupational annuity, which implements a fully funded system. The third pillar is individual supplementary pension insurance, which is voluntary purchase of open-ended fund or participation in individual pension plan (PIP).

The Netherlands is a welfare state of "mixed model", having the elements from both the "continental model" and the "liberal" model, and has built a typical multi-pillar and multi-level social security system. The first pillar of the Dutch pension system is the government-led public pension scheme (Algemene ouderdomswet, or AOW), which is a universal flat-rate pay-as-you-go scheme to provide the basic income garantee for the retirees. All residents over the age of 65 who have lived in the Netherlands for more than 50 years are eligible. The second pillar of the Dutch pension system is the "quasi-obligatory" occupational pension schemes in which the social partners play dominate role. The occupational pension schemes provide workers with supplementary income-related pensions. The Dutch pension system aims at achieving a replacement rate of 70% combining both the AOW and the occupational schemes. The third pillar of the Dutch pension system is individual saving accounts: including commercial life insurance and individual pension savings with tax deductions. Individuals who are not fully covered by occupational pension schemes can opt for individual insurance on a voluntary basis, and both life insurance and individual pension saving account can have similar tax deductions as occupational pensions. In addition, the Netherlands has expanded the medical security system to universal coverage in oder to fully address the risks of aging. Relying on the fully-fledged financial industry of the Netherlands, the volumes of the occupational pension funds in the Netherlands have been increasing very rapidly . In 2018, the total assets of Dutch pension funds as a percentage of GDP stood at 171%, the highest among OECD countries. In order to protect occupational pensions against market risks and to provide retirees with income guarantee, the Dutch government strictly regulates the management of occupational pension fund, especially the solvency of the fund, but does not interfere in the daily operation of the fund.

Spain's pension system is also made up of three pillars: public pensions, employers' pension schemes and individual accounts. Take pension insurance as an example. Public pension includes general plan, special plan and non-contributory plan. The general plan is at the heart of Spain's pension system. It covers all employees over the age of 16 who are not covered by other special plans. Therefore, it covers 60% of pensioners and 75% of working people who contribute to social security. Special programs include those separate programs for self-employed, agricultural workers, domestic workers, fishing workers, coal miners, and government employees. The standards of provision differ among these special programs. Employers' pension schemes were first introduced in 1988. Some are defined benefit schemes while others are defined contribution schemes. However, the pension schemes and collective insurance schemes are primarily defined contribution schemes, which account for around 20% of Spain's workforce.[3] Personal accounts are Spain's third pillar, covering more than 8 million people and accounting for about 5% of GDP. These personal accounts are mainly managed by banks and insurance companies and have high overhead costs. After two reforms in 2011 and 2013, Spain's pension system is turing towards having more defined-contribution schemes. However, hot debates continue in Spain on whether to adopt a purely redistributive Beveridge system or to maintain the existing Bismarckian model.

To sum up, we have seen the general trend of development and found different measures in reforming the structures and institutions reform of social security system in EU countries, especially the social protection for the aged.

[3] Developments in Retirement Programs in Spain, http://www.watsonwyatt.com/us/pubs/insider/printable.asp?ArticleID=17777&Component=The+Insider&page=1

Reforms and the Current State of Social Security in Germany[4]

1. The general trend in basic income security and social insurance in Germany: The market moves one step in but not at the expense of the state

It is not easy to outline the overall trend in the development of the social security system in Germany over the last two decades: each field of social security has its own characteristics; the pressure and driving forces behind reform vary in each field; and the varying pace of advancement and retreat in different areas of reform is not completely consistent. Consequently, the timing of major reforms may not be consistent. This highly heterogeneous nature of social insurance makes the task of elaborating an overall trend difficult, but not completely impossible. To outline the evolution of the laws governing the development of social insurance in various fields, one should take a "bird's eye view" and employ the concept of ideal types from Max Weber. Moreover, we must formulate a structural classification of complex empirical facts and distinguish the fundamental and decisive developments that have reconstructed the German social security system, changing the flow of history and bringing us to a new horizon.

If we examine the details, twists and turns in the development of different trajectories, we find that there are some core features characterizing the process of reform in the German social security system. When we interlink the large and medium-sized forms of insurance in the system, such as pension insurance, medical insurance, unemployment insurance and Germany's basic living security system (that is, the former social assistance system), we encounter a significant trend: the market is playing a more and more significant role. According to Esping-Andersen, welfare states in Continental Europe have been influenced by both corporatism and statism, exhibiting a certain conservative tendency in family and gender welfare; however, the market has never played an important role (Esping-Andersen 1990). Compared to Anglo-Saxon countries, market factors have always been peripheral in continental European welfare states. That means, according to Esping-Andersen, the degree of decommodification is relatively high.

Since Chancellor Schroeder's Red-Green coalition and Merkel's "big" coalition, a series of social welfare reforms in Germany have emphasized market mechanisms and market allocation in the German welfare state. The market has strengthened at the technical and instrumental levels, as well as the policy and discursive levels (See Table 1). More importantly, Germany's national mentality of cautiousness and conservatism towards the market has incrementally changed. Promoted by some elites, workfare has also influenced society and, to some extent, changed the attitude of the German state and society towards welfare and social security. The market has increased its impact on the three major social insurance realms. In the field of pension insurance, the Riester pension system has been established. It is generally considered a milestone for the pension system, as it is a funded system with individual accounts (Liu 2017). In the field of medical insurance, Germany has introduced more market mechanisms to encourage competition among various health insurance institutions and funds, in order to attract more participants. This new relationship between service provider and customer is changing the existing health care system and its culture (Liu 2014). Within the overlapping areas of unemployment insurance and the basic living allowance, a serious reform has reconstructed Germany's relatively loose unemployment insurance and social assistance systems. People with the ability to work have been placed in a workfare-

[4] Author of this section: Liu Tao, Tian Tong.

oriented system, making it difficult to claim unemployment insurance and receive social assistance. The controversial and strict reform, Hartz IV, institutionally directs those who have the ability to work away from unemployment and social assistance and back to the job market (Liu 2015).

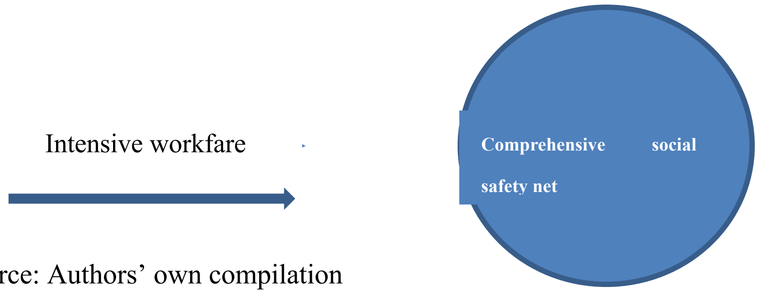
Table 1 Factors strengthening the role of the market in the German welfare regime

	Facts	Relevant social protection fields
Instrumental level	Introduction of additional competition mechanisms into social insurance organizations and a more customer-oriented outlook	Health insurance and long-term care insurance
Policy and Institutional level	Funded pension system and individual accounts	Old-age insurance
Normative/value level	Systematic integration of workfare into social protection	Unemployment insurance and the basic living security system (previously known as social assistance)

Source: Authors' own compilation

However, it is reckless if we move from the above-mentioned series of reforms to the conclusion that "the market moves one step in, the state one step back", and that the German-style welfare state is moving towards an Anglo-Saxon style welfare system. In fact, since every welfare system is unique (Kaufmann 2013) and subject to path-dependency (Pierson 1994), the idea that "the market moves one step in, and the state one step back" is insufficient to describe the complexity of the German welfare system. To summarize the relationship and tension between the "market" and the "state", we might more accurately state, "the market moves one step in but not at the expense of the state". Such a statement reflects the actual diversity and complexity within institutional reform of the contemporary welfare state: from the perspective of the market, its mechanisms and factors are now influencing German social protection along all dimensions, reshaping the structure of the social security system, as well as its values. However, from the perspective of the state, it has not simply retreated from its own ground, let alone experienced large-scale welfare retrenchment (Pierson 1994); on the contrary, the state continues to retain its position – only partially changing its fundamental role. Departing from the role of traditional welfare provider, the state has transformed into an indirect organizer and regulator. The state is not insignificant, but it has, to some extent, given up on the role of "do everything oneself". Rather, the state is, in a creative way, encouraging the market, families and individuals to take responsibility, but not at the expense of the basic idea of the welfare state. To some extent, the state is still significantly present, yet the market is growing. The symbiosis of both is looming.

Figure 1 Welfare regime with an emphasis on workfare



Source: Authors' own compilation

In fact, high-level workfare is becoming a prerequisite of the welfare regime in Germany. With more restricted access to the unemployment insurance system and the social assistance system, Germany's new welfare state system is dedicated to creating a high-employment and low-unemployed social security system, which secures a healthier fiscal foundation for the welfare state (See Figure 1). Therefore, a complete and sophisticated social security network is increasingly dependent on the cooperation with its pre-emptive institutional prerequisites. Over the past two decades, the German social welfare regime has featured a high level of social safety net under intensive workfare. In this sense, pension insurance, health insurance, unemployment insurance and social assistance systems are interrelated, while the market and the state are merging in unprecedented ways.

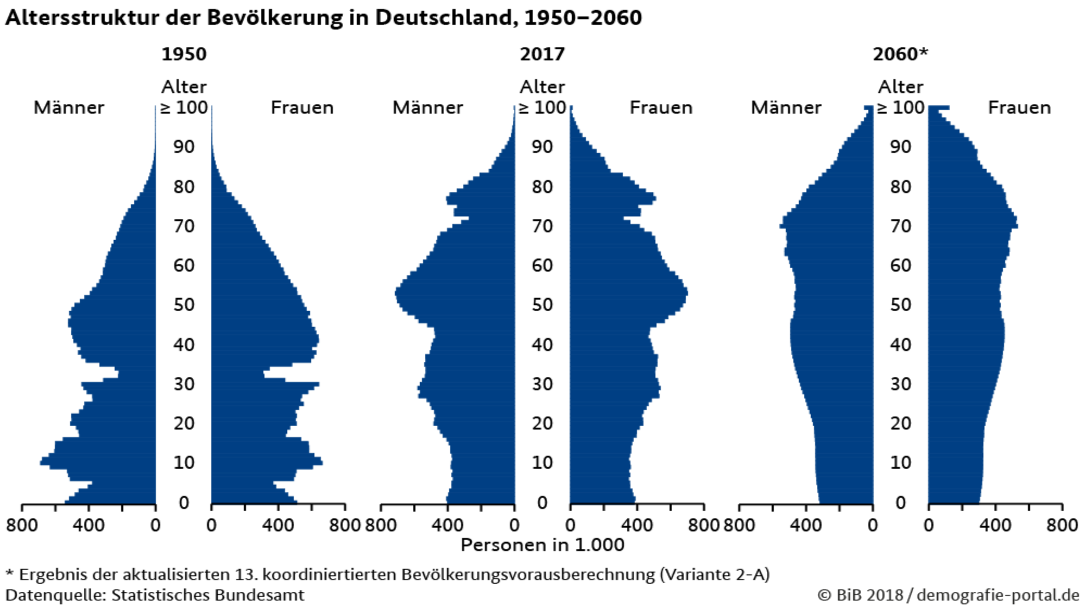
2. Pension security and its reform in Germany

2.1 Reforms and the current state of German Statutory Pension Insurance

In 1957, Chancellor Konrad Adenauer of the Christian Democratic Party facilitated the reform of the German pension insurance system and established the framework for the modern German statutory pension insurance system. The statutory pension maintains a certain income level and ensures old-age security during retirement. The basic financing method is the pay-as-you-go model – the insurance premium paid by contemporary employers is immediately used to pay out pensions for current retirees while the pension for the current workforce will be paid by future workers. It is an "intergenerational contract" acceded by two generations. The German statutory pension insurance system adopts the defined benefit pension plan, aiming to achieve a 70 percent replacement rate to maintain a decent and stable life for retirees. According to the virtual standardization scheme of the German pension insurance system, a "standardized retiree" (*Eckrentner*) who has a standard working biography and pension biography, ideally enters the job market at the age of 20 and retires at 65 years old. The total duration of work is 45 years, which means that the ideal retiree works for 45 years before reaching the legal retirement age. The basic condition for a German resident to receive a pension is to pay at least 5 years of premiums and to meet a 70 percent replacement rate after 45 years of continuous payment. The German statutory pension insurance system aims to maintain the above replacement rate.

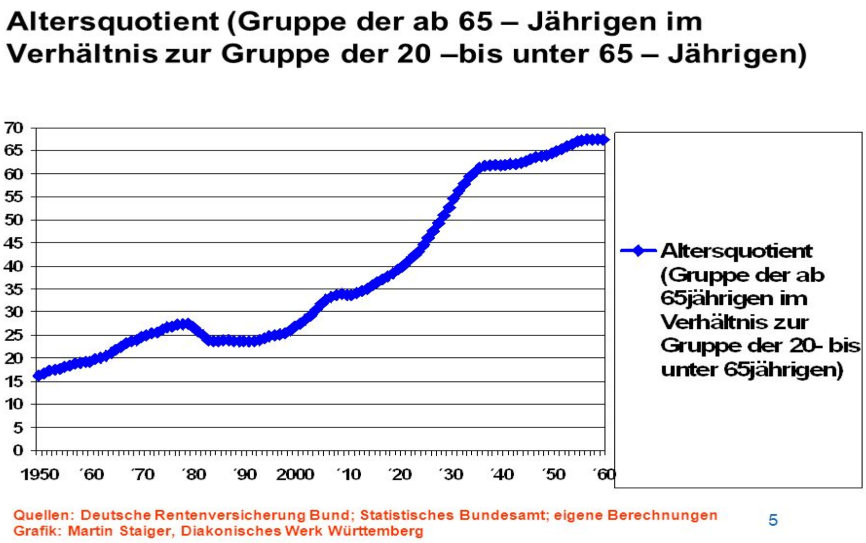
This defined-benefit pay-as-you-go pension system requires a series of social structures and cultural contracts in order to maintain the overall stability of the system. The system firstly requires a stable demographic structure to maintain an approximate balance between two generations; that is, the ratio between retirees and employment groups must be relatively balanced. Secondly, the economy should be in good shape. Through the accumulation of substantial pension insurance premiums, the payment of current retirees is assured. The "standardized retiree" model requires the employed to enter the job market at an earlier age and to have continuous and long-term work experience in the labor market. One should note that, from a gender perspective, the pension system established in Germany after World War II was basically a male-oriented system until the 1970s. Women, because of childbirth and child care, were excluded from the job market and were dependent on their male bread-winner spouses; thus, they generally did not have an independent pension.

Figure 2 The transition in population pyramids in Germany



Since the 1970s, the statutory pension insurance system has been challenged on all levels, especially in the two most fundamental aspects: the pay-as-you-go system and the replacement rate as the main institutional goal. Similar to all OECD countries, Germany has faced a declining birth rate that falls below the population turnover rate. Since 1980, the return of the total population fertility rate to the population replacement level has become an unrealistic goal. Compared to the Nordic countries and France, insufficient nursery and childcare facilities in Germany have led to lower birth rates. Since the 1970s, as in other industrialized countries and Western welfare regimes, aging has gradually become irreversible and has been one of the social foci in Germany. Aging reflects the dynamics of the two ends of the demographic pyramid: with the improvement of living standards and the remarkable progress of medical care, the average life expectancy is rising and the sheer number of the elderly is growing. Second, with waves of modernization and individualization, the ratio of the elderly population to the total population is also rising, as the birth rate descends and the population of children and youth decreases (see Figure 2). These dynamics challenge fundamentally the modern pension insurance system in Germany. As in other developed countries, the problems of the "gray wave" and the "child shortage" are unresolved. German pension insurance faces a similar problem to most developed countries: after the end of the demographic dividend of the baby boom, the inevitable result is a declining workforce facing increasingly dependent older people. Demographically, the dynamics reflect an old-age dependency rate (See Figure 3). As regards the benefit-defined, pay-as-you-go pension insurance system, the fiscal sustainability and legitimacy of the entire social security system is brought into question.

Figure 3 Old-age dependency rate in German (population above 65/population between 20-65)



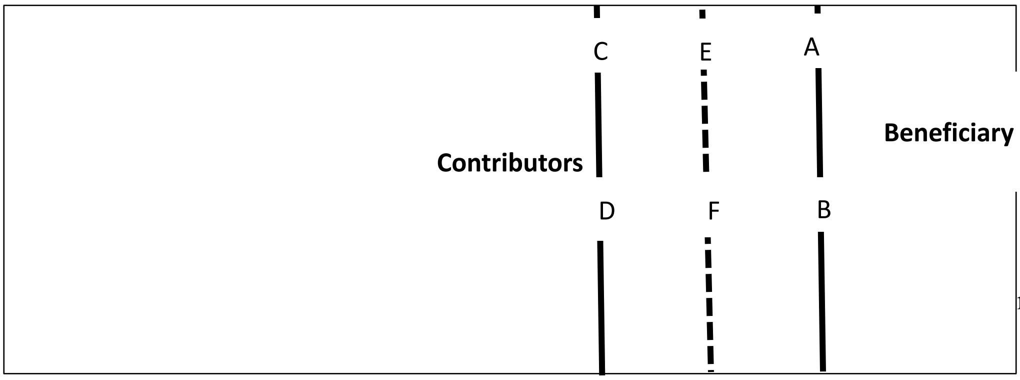
Moreover, the transition from an industrialized society to a post-industrial society has challenged the traditional Bismarckian social insurance system. The Taylorism and Fordism production models of industrialized society have created the "miracle" of full employment, absorbing a large number of industrial populations into the labor market. Employment in the industrial sector has achieved a long-term, overall employment model. The Fordism production model and the Bismarckian social insurance system supplement each other; however, this near-perfect combination has barely been sustained in the era of transition from industrialization to post-industrialization. A large number of people have entered the service industry or the education, science, culture and health industries. The professional market has significantly increased the requirements for educational qualifications and vocational training. The life course begins to be dis-embedded from the standardized life course of industrial society, revealing characteristics of plurality, individualization and heterogeneity (Kohli 1985). In order to adapt to the increasing demand of post-industrial social qualifications and skill requirements, the period of education[5] and professional training has been significantly extended. The diversity and plurality of the post-industrial society has challenged the pension system – through postponed entry into the labor market and constant job changes. Together with the rotation between professional training and work, individuals' working lives have become discontinuous. From the point of the accumulation of pension insurance premiums, this scenario also means that the pension insurance is full of "gaps"; the accumulation period for contributions has been significantly reduced. Such structural changes have influenced not only the individual's overall right to pension benefits but also substantially weakened the ability of the welfare state to collect social security revenue.

As the boundary between the number of "beneficiaries" and "payers" in the pension insurance system constantly shifts, the institutional elasticity of pension insurance is less flexible. As depicted in Figure 4, line AB roughly represents the stable boundary between the beneficiary and the contributor. It is pushed to line CD by the demographic changes and constant instability of the labor market in post-industrial society, as well as the diversity of living and working styles. This is unsustainable for the pension system. In order to maintain the financial stability of the pension system, line CD must move to the right. It is unlikely to reach line AB, the previous boundary, but

[5] Such as study and work at the master's, PhD and post-doc levels.

it should be viable to line EF. Reforms in Germany, including increased investment in family policy and affirmation of the contribution of child-raising, as well as creatively converting women's time raising children to the period of old-age insurance contributions,[6] has aimed at increasing the birth rate to close the distance between line CD and line AB.[7] Germany's elite has also taken young immigrants into account to mitigate the effects of aging in Germany and shift the unfavorable ratio of the beneficiary population to the proportion of contributors. However, a continuous focus on immigration policy engenders debate on whether Germany is an immigrant society. The infamous sexual assaults and riots in Cologne in 2015 suggest that immigrant policy is a complex issue, involving culture, integration and legislation.[8]

Figure 4: The boundary between contributors and beneficiaries in the German pension insurance system



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CD and line AB. It immediately affects the total number of contributors and beneficiaries. It postpones the time that contributors become beneficiaries, thus fostering more institutional flexibility. The extension of the retirement age is, however, not easy in a modern democratic society and inevitably leads to backlash. Germany has implemented an incremental extension of the retirement age: starting in 2012, the retirement age has increased by one month per year and from 2023, it will increase by two months every year. By 2029, the goal of the measure is expected to be fulfilled, with individuals retiring at 67 years old, instead of 65 (see Table 2).

[6] For each child, mothers receive a bonus equivalent to a three-year pension entitlement.
[7] However, despite the many family and social welfare policies, Germany's birth rate remains sluggish. The latest data show that, although Germany's total fertility rate has risen to 1.6, it is still far from the generational replacement level of 2.1 in a society.
[8] In order to stabilize the ratio of old to young people to maintain the statutory pension system, Germany would need, according to German demographer Herwig Birg's estimation from the millennium until 2050, a total of 188 million young people, equivalent to 2.3 times the total population in Germany. See https://www.faz.net/aktuell/feuilleton/grundkurs-demographie-vierte-lektion-deutschlandbericht-1211232.html [accessed on June 22, 2019]
The German sociologist Franz Xaver Kaufmann (2005) argues that it is not simply a matter of quantity, but about the extent to which migrants can be integrated into the German labor market. Whether or not Germany is an immigrant country is highly controversial, although Kaufman has asserted that Germany indeed is such a country (Kaufmann 1997).

Table 2 Incremental extension of the retirement age in Germany

Year of birth	Date of receiving pension Year	Month	Percentage deducted for retirement at age 65	Calendar Year
1946	65	0	0.0%	**-**
1947	65	1	0.3%	**2012**
1948	65	2	0.6%	**2013**
1949	65	3	0.9%	**2014**
1950	65	4	1.2%	**2015**
1951	65	5	1.5%	**2016**
1952	65	6	1.8%	**2017**
1953	65	7	2.1%	**2018**
1954	65	8	2.4%	**2019**
1955	65	9	2.7%	**2020**
1956	65	10	3.0%	**2021**
1957	65	11	3.3%	**2022**
1958	66	0	3.6%	**2023**
1959	66	2	4.2%	**2024**
1960	66	4	4.8%	**2025**
1961	66	6	5.4%	**2026**
1962	66	8	6.0%	**2027**
1963	66	10	6.6%	**2028**
1964	**67**	**0**	**7.2%**	**2029**

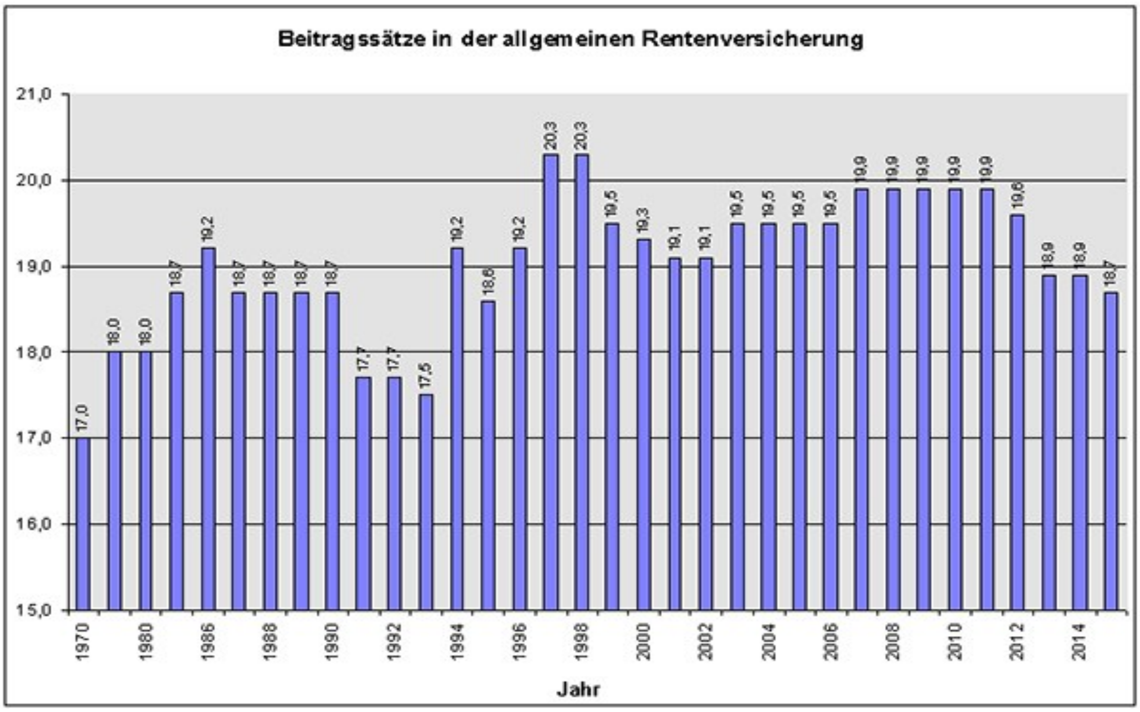
Source: Authors' own compilation

Aggravated by the aftereffects of German unification, the payment crisis in pension insurance caused by demographic changes resulted in an increase in the contribution rate after the 1980s (see Figure 5). Since the 1990s, the institutional costs of German unification also began to emerge.[9] The

[9] Unification resulted in the integration of two different social security systems. An insurance system based on the Soviet labor insurance system (in the former German Democratic Republic) needed to be fully integrated into the

contribution rate reached a peak in 1997 and 1998 – 20.3 percent of pre-tax wage income, triggering a national discussion on the financial crisis in the pension system. In general, as an export-oriented economy, Germany is highly susceptible to shifts in wage and tax levels and social insurance costs: excessive wages and payment of social insurance fees endanger the international competitiveness of the German economy, bringing about debates on Germany's credibility as an international investment destination. The German political and industrial sectors reached a consensus that social insurance should not share more than 40 percent of the total premiums and that pension insurance, as the largest insurance branch, should not exceed 20 percent. When the pension premium share surpassed 20 percent, over 22 percent or even higher, based on estimates (Bökenkamp 2010), such increases have pressured reform in the pension sector and the institutional fundamentals and principles have been affected.

Figure 5 The contribution rate for Statuary Pension Insurance in Germany



After debates in the academic and political sectors, Germany has gradually "retreated" from its essential institutional objectives since the millennium. The country faces a dilemma in achieving two tasks – one is to maintain a contribution rate below 20% percent; the other is to maintain a 70 percent replacement rate. One or the other must be adjusted accordingly. The traditional unshakable faith in pension insurance has indeed been shaken, and a new institutional discourse has begun to take shape. In the new system, Germany has also been influenced by the privatization of pension

social insurance system of the Federal Republic of Germany. This reform has proven demanding. Germany's tax system, including the financial system of German social insurance, has implemented huge fiscal transfer payments to ensure the integration of the East German labor insurance system into the social insurance system in West Germany. See at Tao Liu, 2017: Social Integration and the Equalization of Public Service: Towards a Balanced Social Policy in Germany, Social Policy Research.

insurance and has begun to implement a funded pension insurance system. The following section will introduce the well-known Riester pension insurance system.

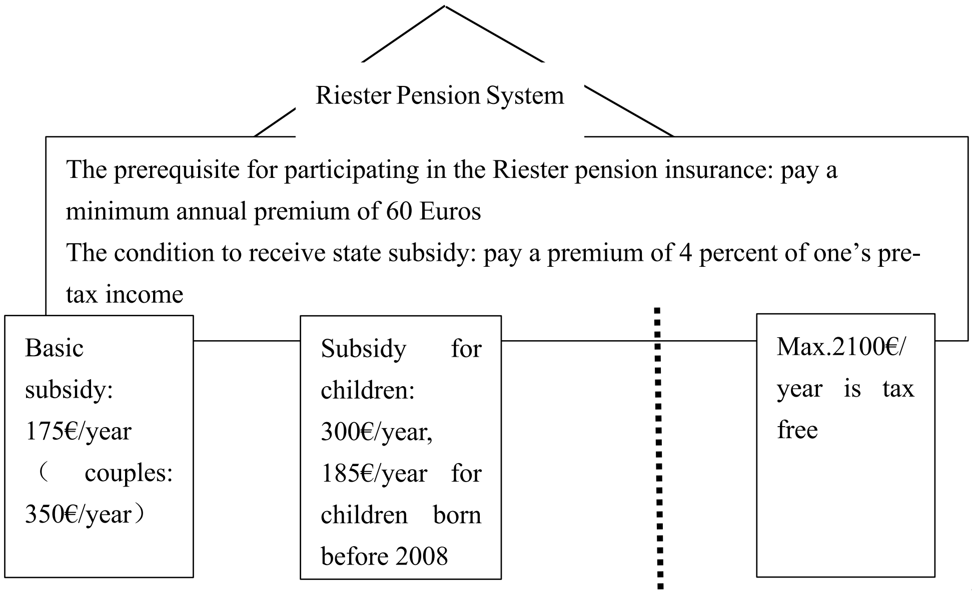
2.2 Riester Pension Reform and its Current State

Named after Walter Riester (of the Social Democratic Party), the then Minister of Labor and Social Affairs, and facilitated by the Social Democratic Party and the Green Party coalition in 2002, the Riester pension system represents a major reform in the history of the modern German pension insurance system. As mentioned previously, the statutory pension insurance system cannot achieve its dual core goals; accordingly, at the beginning of the 21st century, Germany lowered the replacement rate to 67 percent, abandoning one of its goals. This is a small step in the history of German pension insurance reform, but a big step in the history of the modern German social pension system; it shows that realism has gradually replaced idealism. The new system, an independently funded system, will compensate for this 3 percent gap in the replacement rate. This change is the core of the Riester pension system.

The Riester pension system is a state-subsidized, personal savings-based funded pension system (See Figure 6). Although German employees are not obligated to join the insurance, they have been encouraged to participate in this plan through a series of measures promoted by the state. Since the establishment of the system, the insurance is no longer based on taxing the enterprise. Companies are exempted from paying the pension insurance premiums. They take no responsibility for this plan and do not finance it.

The prerequisite for participating in the Riester pension insurance system is to pay a minimum annual premium of 60 Euros (maximum 2100 Euros). If a German employee pays a premium of 4 percent of pre-tax income, the employee can receive a full subsidy from the state. The state grants a full subsidy of 175 euros/year (previously 154 euros/year) to the insured individual. If a couple participates in the Riester pension insurance system, the state subsidizes 350 euros/year. The Riester pension provides special support to families with children – each child born before 2008 receives a subsidy of 185 euros/year and every child born after 2008 receives a subsidy of 300 euros/year. Further, the payments made into the Riester pension insurance systems are tax-free. The insured person can only withdraw from the insurance fund until the age of 60.

Figure 6 Riester Pension



With the implementation of the Riester pension, the welfare state has transformed its role into an indirect regulator of the welfare market, no longer offering social welfare and social security programs directly but rather organizing and regulating them. Institutions participating in the Riester pension are regulated by the state; to participate in the Riester pension insurance system, financial institutions must first obtain certification from the German Federal Financial Supervisory Authority (BaFin).[10] Only reputable and strictly managed financial institutions can obtain the certification. The Riester pension itself has a distinct legal foundation. In order to regulate the Riester pension system, Germany has passed the Retirement Savings Act.[11]

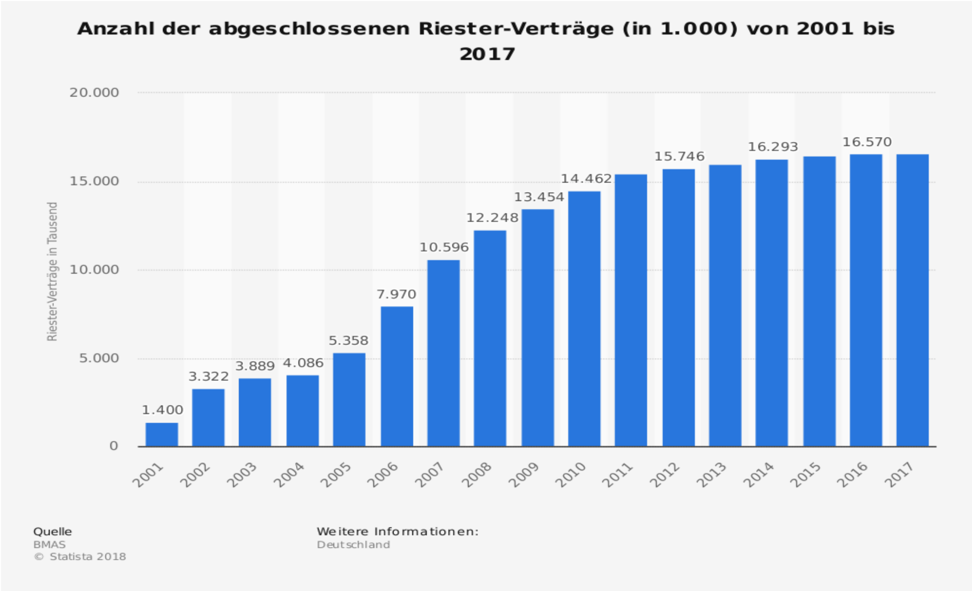
Apart from strictly limiting the age at which the insured withdraws and utilizes the fund, the state also regulates the investment and operation of the financial market to prevent the misuse of pension funds. The laws and regulations governing the Riester pension have re-defined the role of the state. The state is legally bound to punctually transfer the pension insurance subsidy to the individual's account. According to the Retirement Savings Act, regardless of the longevity of the insured person, the pension payment is lifelong. The Riester pension funds cannot be used as a mortgage by financial institutions – nor can they be used to pay debts in the event of bankruptcy. The institutions must also regularly inform the insured about the operation of the fund and ensure transparency. Although this strictly regulated financial net limits the profits of the financial institutions, it also reduces and controls the financial risks and potential speculation.

Compared to the traditional German statutory pension insurance system, the Riester pension features not only a funded plan but also state-subsidized, voluntary participation. The Riester pension is completely different from the traditional Bismarck social insurance system, which required the same payment ratio from both employers and employees. In the Riester pension system, the individual and the state pay the premiums, while the enterprise does not bear the burden of payment. The Riester pension is also distinct from the "second pillar" of the multi-pillar insurance system recommended by the World Bank in 1994, which requires compulsory participation for individuals. Participation in the Riester pension system reflects personal activities in the market. Figure 7 shows the rapid growth from its inception until 2010: while the number of signed Riester contracts grew from 1.4 million in 2001 to 14.46 million in 2010, the insurance contracts have numbered between 16 million and 17 million in recent years.

Being able to pay additional fees, the employed (besides those covered by the statutory pension insurance) are the target group for the Riester pension; unemployed groups, and especially low-income groups, are basically excluded. In Germany, less than 17 million employed individuals out of the 44.3 million employed population are covered by the Riester pension insurance system, which inevitably brings new social problems such as inequality and stratification.

[10] Full name in German: *Bundesanstalt für Finanzdienstleistungsaufsicht*
[11] Full name in German: *Altersvermögensgesetz*

Figure 7 Signed contracts for the Riester pension from 2001 to 2017 (in thousands)



2.3 Corporate Pension Plans in Germany

Apart from the statutory social insurance, large- and medium-sized German enterprises normally establish additional pension insurance for their employees. The German corporate pension plans consist of five types:

1) Direct commitment (*Direktzusage*). Based on the employer's direct and legal commitment to the employee, it is the main form of occupational pension insurance developed since 1990. When the employee reaches retirement age, the employer can, under certain conditions, pay a lump-sum pension, grant a subsidy if the employee loses the ability to work or subsidize the family after the employee's or former employee's demise.

2) Provident fund (*Unterstützungskasse*). This model establishes an independent legal entity for fund collection and management of the investment. The accumulation and profit are mainly used to pay benefits, including pension benefits, to employees, retired employees and their families, as well as to the bereaved.

3) Pension insurance scheme (*Pensionskasse*). It is similar to the provident fund. One significant difference is that this insurance has legally defined the employee's corporate pension insurance benefits, while the provident fund model does not.

4) Direct insurance (*Direktversicherung*). It is a form of reinsurance and collective insurance. Enterprises sign an insurance contract with insurance companies, life insurance companies in particular, to cover the welfare and pension insurance benefits of enterprises and employees and their families.

5) Pension fund (*Pensionsfonds*). Legally, it can be a part of the company's internal property or an independent legal entity. If the latter, several employers and different companies can simultaneously invest in a pension fund company. The employer can be withdrawn from a pension fund company and transferred to another company for investment. Although employees have the legal right to acquire enterprise pension insurance from the pension fund, the specific amount of

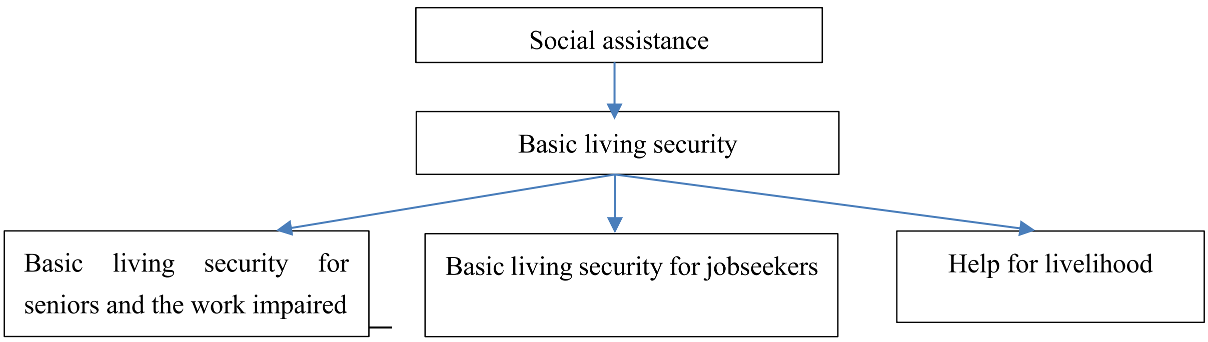
pension insurance must refer to the available fund and the accumulation of the assets (Naegele et al. 2010).

3. Reforms in the Basic Living Security System and Unemployment Insurance

After 1962, Germany passed the Federal Social Assistance Act (*Bundessozialhilfegesetz*) and instituted a unified social assistance system. Germany also established an unemployment insurance system after the Second World War. Based upon the years of contribution, the unemployed can receive up to 32 months of unemployment benefits, which equals to 60-67 percent of past income. After this stage, the unemployed may receive unemployment assistance equal to 53-57 percent of past income. One can receive this social assistance until retirement age. In the 1990s, Germany suffered a continuous and systematic wave of high unemployment (Liu 2015). From 1993 to 2005, Germany carried out major reforms to its social security system. This series of reforms involved social assistance and unemployment insurance. Highlighted by the Hartz reforms from 2001 to 2005, the social assistance and unemployment systems underwent systematic reconstruction, engaging the redistribution of social resources and the redefinition of social rights and obligations.
After the reform, the unified national social assistance system was separated into three different systems: 1) basic living security for seniors and the work impaired (*Grundsicherung im Alter und bei Erwerbsminderung*), aiming at the elderly and those unable to work due to physical disabilities; 2) basic living security for jobseekers (*Grundsicherung für Arbeitssuchende*), targeting all working-age people; and 3) help for livelihood (*Hilfe zum Lebensunterhalt*), for the remainder of the population (e.g., children under the age of 15 and temporarily hospitalized groups). Together, they comprise the basic living security system (*Grundsicherung*) (See Figure 8).

Although the three systems are equivalent to the past social assistance system and the amount of payments is the same, the conditions for receiving the benefits are different: the basic living security for seniors and the work impaired is easier to receive and extend; the basic living security for jobseekers is harder to receive and extend, and the applicants are obligated to participate in a wide range of professional training and to accept various temporary jobs offered by the employment agency; and the number of recipients for the help for livelihood is limited. Take the basic living security for jobseekers, for example. In 2019, if an adult member of a household is registered as unemployed or job-seeking, then 424€ per month is obtainable, and the spouse can receive a basic living allowance of 382€ per month. Other adults can get 339€ per month, while children between 14 and 19 can get 322€ per month (between 7 and 14 is 302€ per month, between 0 and 6 is 245€ per month).[12]

Figure 8 Basic Living Security system after reform

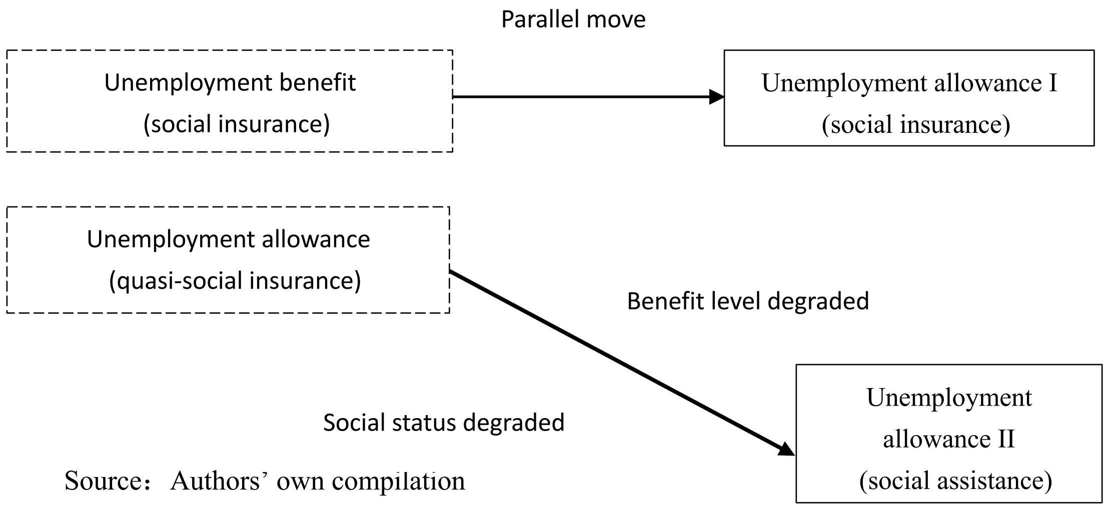


[12] See: https://www.refrago.de/hartz-iv_-_regelsaetze-fuer-die-grundsicherung_-_neue-saetze-ab-01.01.2019_-_sgb_ii_und-sgb_xii.html [accessed on June 22, 2019]

The unemployment insurance system has also been restructured accordingly. The prior unemployment insurance has been renamed “unemployment allowance I” (*Arbeitslosengeld I*) and its payment time has been greatly reduced, to 12 months; unemployment assistance is now “unemployment allowance II” (*Arbeitslosengeld II*) – the abovementioned basic living security for jobseekers. In a historic move, social assistance for people with the ability to work has merged with unemployment assistance. This system is widely known as "Hartz IV" and it has brought about the biggest change for unemployed people with work experience and who have paid social insurance premiums (See Figure 9). They have been downgraded from the unemployment assistance system with income replacement, to the basic living security system, which represents social assistance. The social insurance level and the social status of the group have also plummeted – from recipients of the social insurance system to seekers of help from the state. This change has resulted in stigmatization of those social groups.

The unemployment allowance II (*Arbeitslosengeld II*) is subject to strict qualifications. Establishing a quasi-social control mechanism through the employment agency, the state controls and regulates the social behavior of people who have the ability to work. The allowance recipients may be punished under “violations”: failing to attend employment agency appointments at the agreed time; being absent from professional training courses without proper cause; or declining offers from the employment agency without justifiable reasons. The unemployment allowance II (*Arbeitslosengeld II*) may even be frozen for a period of time. The young unemployed are punished significantly more intensively than the elderly unemployed. In 2018, the number of penalties related to Hartz IV was 904,000.[13]

Figure 9 Benefit level and social status change brought about by the Hartz IV reform



Source：Authors’ own compilation

4. Conclusion

The pension insurance system and social insurance in Germany have undergone unprecedented changes and transitions. The idea that “the market moves one step in but not at the expense of state” summarizes this trend. At the interface of unemployment insurance and social assistance systems, German social security now features a higher level of commodification and a lower level of decommodification. Making attempts with baby steps in the privatized market system has reinforced

[13] See: https://www.sueddeutsche.de/wirtschaft/hartz-iv-sanktionen-1.4403989 [accessed on June 22, 2019]

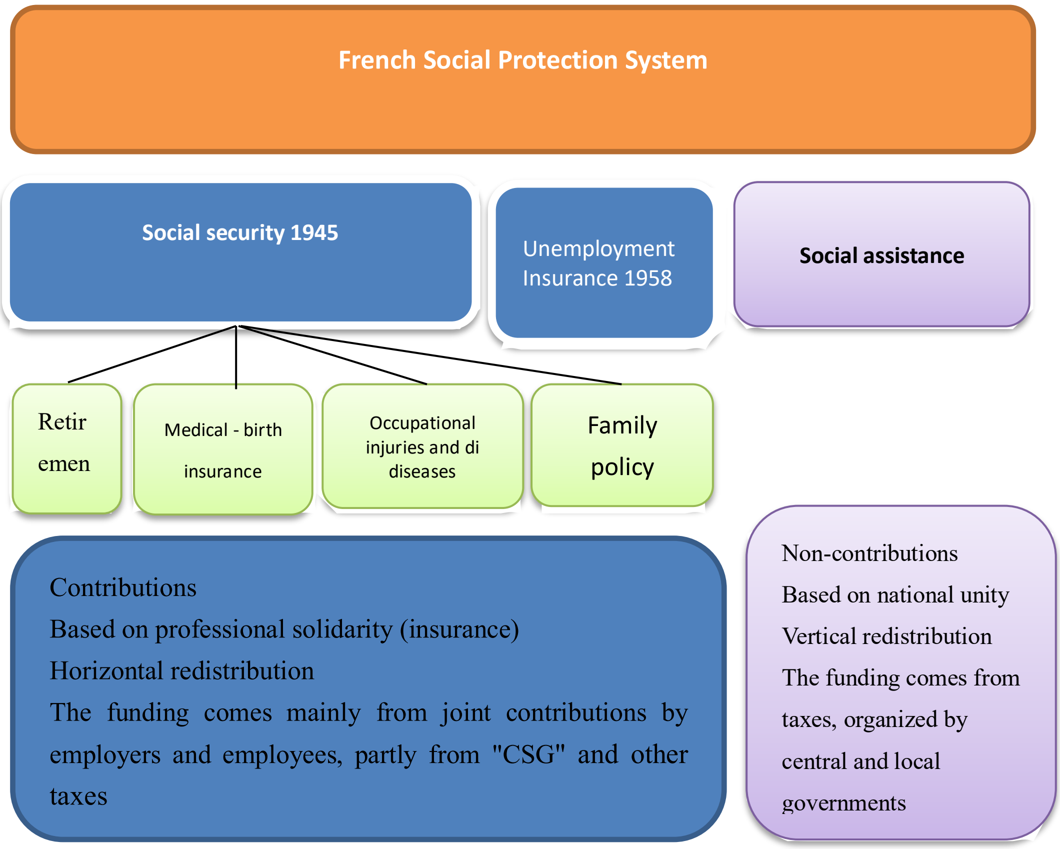
the commodification level in pension insurance to some extent. Compared with the Riester pension, the statutory pension insurance system, despite a slight retreat from its core objectives, still dominates, maintaining its status of primacy in the entire system of old-age protection. The Riester system itself reflects a new form of coordination between the state and the market. The state uses tax money to subsidize the basic and children's allowance of the Riester pension, the state has adopted a strict financial supervision net for the public-oriented welfare market and the state's "visible feet" step on the "invisible hands" of the market. Thus, there is significant difference between the German pension fund market and the laissez-faire fund market in the Anglo-Saxon system. While the role of the market is growing, the state is still present. At the same time, the way the welfare state allocates resources has changed – the state has transformed from a supplier of welfare into a regulator and guarantor of the (pension) market. Germany is seeking equilbrium between the state and the market to avoid the problems caused by high levels of welfare spending and to prevent the social exclusion and polarization caused by high marketization. An eclectic welfare state with a touch of market mechanisms is looming.

Overview of France's Social Security System[14]

1. The basic structure of the French social security system

France's social security system was created after the World War II, and its current structure is as follows (see Figure 1).

Figure 1. Basic structure of French social security system



The French social security system was established after the World War II. It consists of five branches : pension, medical insurance (including reproductive healthcare), work-related injury & occupational disease, family policy and unemployment insurance. Among them, the three parts of pension, medical insurance and unemployment insurance are jointly contributed by employers and employees ; work-related injury & occupational disease and family policy are paid unilaterally by employers.[15]

French social security system has the following characteristics:

(1) The social security system in France has a full range of schemes, a high level of security and a wide coverage, providing "cradle-to-grave" comprehensive security, and playing a prominent role in poverty reduction and promoting women's employment.

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[14] The author of this section: Peng Shuyi.

[15] Occupational injuries and occupational diseases are paid only by the employers, which is based on the consideration of encouraging the employers to strengthen prevention and reduce the occupational injuries. Family policies are paid only by employers for historical reasons: long before the establishment of the modern social security system in 1945, some French employers unilaterally funded the establishment of family allowances, which provided employees with family allowances, similar to wage distortions, to attract and consolidate the workforce. This tradition continues.

(2) From the perspective of the whole system structure, the state plays an important role in social security and is the main welfare provider, while the market plays only a negligible role. The whole system is generous and comprehensive -- the underpinning pension scheme, medical care and family allowance have been extended to all, which is known as "French socialism".

(3) Every coin has two sides. High welfare is supported by high taxes. The social security system in France faces a prominent challenge in fiscal sustainability and is always exploring reform. The continuing reduction of the inclusive allowances in family policy has almost entirely shifted to household surveys; the benefits of unemployment insurance have gradually decreased, from generous assistance to incentives for employment.

2. French pension system： establishment and characteristics

The current French pension system was created after the World War II. Starting from the situation that the country in urgent need to rebuild its economy after the war, the ruling left-wing government established a modern social security system for all the working population, of which the pension system was one of the core contents. The system has the following features:

(1) The pay-as-you-go system dominates

After the war, the establishment of pension system by the French government is to reduce the class difference, the establishment of a new fair and just social order. Additionally, prior to the World War II, the French government created a pension insurance system of fund system for all the working people (1930), but the system was soon impacted by the global financial and economic crisis (1929-1933). Under these circumstances, the pension funds shrunk dramatically, the rights and interests for retirees could not be guaranteed any more. Therefore, France chose a pay-as-you-go system that could effectively make up for market failure, and had the function of income redistribution and intergenerational solidarity, and fund system was discarded. The "pay-as-you-go" pension system is also a common practice of the post-war Bismarck welfare state with the common goal of pursuing social justice. However, what is special about France is that, in addition to the basic pay-as-you-go pension system, there is also a compulsory supplementary pension in the form of a pay-as-you-go occupational annuity. There is no essential difference between the system and the basic pension system. So the French pension system, since its inception, has been pay-as-you-go and the advantage is prominent.

(2) Highly fragmented and multi-track system

After the war, the French government planned to create a unified pension "general system" that covers all the population. Afterwards, under the thwarting of interest groups, it was forced to set up pension systems respectively for different groups, and propose a unified system -- the "general system" was reduced to cover only the private commercial sector wage earner, forming the system of fragmented pattern - the basic pension system is divided into four large salary systems: (1) the "general system" that covers the employees in the private sector. (2) the "agricultural system" that covers the agricultural population. (3) the "non-agricultural personnel system for non-salaried employees " that covers non-salaried laborers outside the agricultural field, i.e. individual practitioners. (4) the industrial systems left over from history, dominated by the public sector, the former public sector and quasi-public sector, which are collectively referred to as "special systems". The "general system" is the backbone, covering more than two-thirds of the working population.

(3) Follow the principle of cooperation and be managed by social partners

It is designed to establish a fair new social order and win the active participation of workers in economic reconstruction. At the same time, in order to avoid state management leading to bureaucracy, the French pension system adopts the management principle of " corporatism", which is managed by representatives of employers and employees, and the state only plays a supervisory role. One result is that unions play a key role in the management of the pension system, with "veto power" over decisions.

From its establishment until the 1970s, during the "golden thirty years" of rapid economic development in France, the pension system worked well, but with the passage of time, the system gradually encountered problems.

3. Pension system: problems and reforms

3.1 Problems

Pay-as-you-go is almost the only way of financing for the pension system in France, and this method is very sensitive to the changes of population structure and the macro economic environment, therefore, since the late 1970s, due to the ageing population, economic growth downturn, rising unemployment and other factors, the French pension system gradually fall into the predicament of serious revenue and expenditure unbalance; since the early 1990s, France began to reform the pension system, so as to increase spending cuts, cut the deficits, ensure the financial sustainability of the pension system.

3.2 Reforms

Since the reform was launched in 1993, the French government has carried out several rounds of reform on the basic pension insurance and supplementary pension insurance. Overall, the reform has taken two measures: first, adjust the parameters of the pension insurance, increase income and reduce expenditure; second, introduce the pillars of the fund system, and change the singularity of the pension structure.

I. Parameter adjustment

The parameter reform is mainly to adjust the technical parameters such as retirement age, contribution period and contribution level, so as to realize the purpose of increasing income and reducing expenditure. The following measures are included:

(1) Extend the contribution period. After several rounds of reform, France has gradually extended the contribution period of full pension (basic pension insurance) from 37.5 years to 43 years.

(2) Increase the contribution level. Since the 1970s, France has gradually raised the contribution rate of basic pension insurance from 8.50% to 17.75% after several adjustments. From 2019, the contribution rate of supplementary pension insurance will also be gradually increased.

(3) Make more efforts on the technical issues such as the method and time of pension calculation or adjustment to achieve the purpose of expenditure reduction "implicitly".[16]

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[16] For example, the calculation standard of pension in the private sector is extended from the average monthly salary of the 10 years with the highest salary in the career to the 25 years with the highest salary; decouple pensions from wage growth and index them to prices; from 2017 to 2019, supplementary pension insurance is adjusted by an index one percentage point lower than the real inflation rate (the measure is estimated to save €2.1 billion by 2020); From 2015, to postpone the annual adjustment of basic pensions from April 1st to October 1st (the measure will save €1.3 billion by 2020),

(4) Extend the statutory retirement age: in 2010, the statutory retirement age is raised from 60 to 62; the full pension age has accordingly risen from 65 to 67.[17]

(5) Curb early retirement and encourage deferred retirement by reducing or increasing pension.

(6) Streamline the organization, simplify procedures and reduce management costs.

II Strengthen the pillar of the fund system

In addition to increasing income and reducing expenditure, France is also trying to reduce the financial strain on the first pillar by introducing a system of pension schemes and projects of fully-funded system. However, as the pay-as-you-go system occupies an absolute dominant position in the institutional arrangement of France (since the 1960s and 1970s, the replacement rate of the basic pension and supplementary pension system has been around 70-75% for a long time, or even higher), the development space for the "fund system" is rather limited. In addition, the pay-as-you-go public pension is managed by social partners, and the management power is in the hands of several major trade unions, which weakens the pay-as-you-go system and strengthens the fund system. It is equivalent to weaken the power of trade unions, which is bound to be resisted, so the introduction of the fund system is slow and difficult.

In 2000 or so, the situation just turned a corner. At that time, under the background of the continuous development of economic globalization and European integration, the number of European and other multinational enterprises in France was increasing, and many of them set up fund-system enterprise annuity to attract talents. The French government took the opportunity to lobby the unions in agreeing to set up a similar system in France; in order to avoid huge loss of talents, and weaken the mass base of unions, it ultimately succeeded in persuading the unions and eliminated the obstacles for creating a fund-system of pension schemes: in 2003 the French legislation introduced two pension schemes of fund system, "Enterprise Collective Retirement Savings Plan (PERCO)" and "Individual Retirement Savings Plan" (PERP), respectively, for employees of private enterprises and all the employees. Both of them are voluntary pension schemes of fund accumulation system. The state encourages participation through the reduction and exemption of enterprise social security payment and individual income tax. It is the first legal framework for a funded pension scheme in France.

Indeed, as early as the mid-1990s, with the influx of foreign companies due to the establishment of the European unified market, France, under the framework of the *General Principles of Tax Law* (Article 39 and 83), encouraged enterprises to establish annuities through tax incentives to improve their competitiveness. But only a few large companies with deep pockets have established annuities for their executives, often with minimum seniority requirements of at least a year and minimal coverage.

To sum up, over the past three decades, the pension reform in France has been dominated by parametric reforms, and little has been done in terms of structural reform except for the establishment of "Enterprise Collective Retirement Savings Plan" and "Individual Retirement Savings Plan" in 2003.

[17] As stipulated in the supplementary pension system reform in 2015, from 2016, retirees who meet the current statutory retirement age (62 years old) and the full pension contribution year (41.5 years) cannot receive the full pension unless they work for one more year and pay for one more year. If you retire at 64, you get a bonus (a 10% supplementary pension), and the longer the delay, the bigger the bonus. The measure is estimated to save 6.1 billion euros by 2020.

4. The structure and features of the reformed pension system

4.1 Structure

After more than half a century of reforms, a three-pillar pension structure has taken shape in France (see Figure 2):

The first pillar is divided into two layers. The first layer is the pay-as-you-go compulsory basic pension insurance system, which is the core of the French pension system. The fund mainly comes from the joint contributions of employers and employees. There are also special taxes on social security. The replacement rate is about 40-50%; The second layer is the pay-as-you-go compulsory complementary pension insurance in form of occupational annuity. The replacement rate is about 20-25%.

Under the framework of the "Enterprise Collective Retirement Savings Plan" and the *General Principles of Tax Law,* the voluntary enterprise annuity plan and others constitute the second pillar of the pension insurance in France. "Individual Retirement Savings Plan" and other odd pension schemes in the market form the third pillar.

Some of the underpinning, non-contributive aid projects constitute the so-called "Zero Pillar" by the World Bank. These are mainly the "Solidarity Benefits for the Elderly" (ASPA, for those who are unable to enjoy their full pensions because of low wages or insufficient years of contributory contributions), and the Minimum contribution guarantee (or Minimum contributive, for retirees who have sufficient contributory years but have insufficient pension contributions because of low wages).

Figure 2: Institutional framework of the pension insurance in France (general system)

The pension system in France			
The zero pillar	**The first pillar** Pay-as-you-go	**The second pillar** Funded system	**The third pillar**
Solidarity allowance fort he aged	The second level: supplementary system: supplementary pension system for wage earners, supplementary pension system for managers, etc	Articles 39, 80, etc of the tax law	Individual retirement savings plans
	Level 1: basic system (general system, agricultural system, self-employed system, special system, etc.)	Enterprise collective retirement savings plan	

4.2 Features

After several reforms, the current pension system in France has the following characteristics:

（1） The pillar of pay-as-you-go public pensions still dominates

Although France has initially formed a three-pillar pension system, but on the whole, in the whole pension structure, the pillar of funded pension is small in scale, slow in development and accounts for very little ; whereas the pillar of pay-as-you-go pension still dominates. This means that France's pension system is dominated by the responsibility of the state, with little role for the market.

（2） The role of mutual aid and solidarity is favorable with a high level of security

Thanks to the absolute advantage of pay-as-you-go system, the role of mutual aid and solidarity for the pension security system in France is favorable and it has a high level of security. A certain level of alternative income can be ensured, and it has a prominent role in preventing poverty in the elderly, which can better protect social justice. OECD statistics on poverty rates among the elderly demonstrate this point. Eurostat data of 2016 also suggest that poverty among the elderly is low in France.

（3）The fiscal sustainability issue is expected to improve significantly, and the target of "sustainability in the medium term" can be achieved

As mentioned above, the biggest problem of the French pension system is the serious deficit, and the most recent reform (2014) explicitly proposes to achieve the fiscal balance of the pension system from 2020, and finally make the system sustainable at least in the medium term (the next 25 years, i.e. 2040). In 2016, French authorities conducted a special assessment of the parameter reform conducted between 2010 and 2015. The results show that on the premise that the French economy maintains a reasonable growth rate, the expected goal of sustainable pension in the medium term is expected to be achieved.

However, the reform has also inevitably brought some negative consequences:

（1）The pension fund continues to shrink, intergenerational equity and other problems emerge, and the reliability of the guarantee decreases relatively

Continuous parameter reform has improved the financial sustainability of French pensions, but also led to the continuous shrinking of public pension and the decline of guarantee level. According to the study, the average living standard of French retirees is higher than the average living standard of all French people (if the average living standard of all French people is 100%, it is a 105% for retirees), however by 2060, as a result of changes to the parameter reforms, that proportion will have fallen, with some of them seeing big falls in their pensions; there is big risk that part of the population cannot enter or be squeezed out of the public pension security network, as these people have a higher risk of poverty; the state has also been forced to increase the cost of unemployment insurance and old-age assistance; the reforms will also lead to generational differences in levels of security, with future retirees, in general, paying more and receiving less.

Overall, however, the pension security in France remains high across Europe, as the core status of the pay-as-you-go system remains intact.

（2） Pension insurance is moving towards dualization, and the institutional structure is deviating from the original design of "Bismarck Model"

France's pension system was originally designed to cover all the population. Due to the shortage of labor and full employment, the government chose the "Bismarck" model based on occupational insurance, that is, "to achieve the goal of Beveridge (universal coverage) with the method of Bismarck". But with the continued reform of the pension system, the pay-as-you-go public pension system has become more and more strict in terms of the number of years of contribution, plus the ever-changing labor market -- full employment for all has long been replaced by high unemployment. Formal and stable employment is shrinking, while informal employment is increasing. As a result, the pension security is becoming more and more " dualized", which is far away from the idea of covering the whole population by "occupational" insurance at the beginning of the establishment of the system.

The so-called "dualization" refers to that people with steady employment are given a relatively good guarantee and become the insiders of the pension system. Whereas others, such as informal workers are blocked outside the public pension system, or are thrown out of the system, due to insufficient period of contributions, an interrupt period of contributions, low income, therefore, they become outsiders of the pension system; they end up in assistance system, and are bailed out by the state with the minimum guarantee. The " dualization" has opened up a gap in the levels of pension security and created an unfair pension security.

5. The ideas of President Macron's pension reform and the future direction

5.1 ideas of President Macron's pension reform

After being elected as the president of France in 2017, Macron once again put retirement reform on the agenda. After a long debate, the draft reform will be finally released in the late summer of 2019. Although the contents of the draft are not yet known, Macron's recent remarks and related documents give us a few hints about the ideas and principles of the reform:

(1) Reach consensus -- maintain the framework of the pay-as-you-go system without structural reform

After fierce debate, all parties in French society have reached the following consensus : keep the core status of the pay-as-you-go system in the pension system unchanged. The President himself has made it clear that he supports the pay-as-you-go system, which "unites France"[18].

Previous proposals by institutions such as the World Bank and the European Union for structural reforms to strengthen the pillar of the funded pension have been made. But judging from the discussion and the President's speech, there is no intention of structural reform in France, for the following reasons:

The first reason is that the public opinion base of the funded pension is insufficient and the political risk is high. After the war, the pay-as-you-go pension system with the function of income redistribution and intergenerational solidarity promoted by the left-wing government and trade unions has well protected the interests of the majority of the French people, which is a huge social progress and "socially acquired". On the contrary, strengthening the pillar of the funded pension and weakening the pay-as-you-go pillar means weakening state responsibility and strengthening individual responsibility, which is seen by most people as a social "regression". Moreover, the structural changes are bound to be fiercely opposed by the trade unions, making it difficult for the government to stand down.

(2) although the funded pension can better cope with the change of population structure, it is very vulnerable to the fluctuation of financial market and has the risk of devaluation. France has had the painful lessons of 1930 (see the preceding part), the 2008 financial crisis exposed the same question again: during crisis, second - and three-pillar pension funds around the world are subject to financial market volatility, as the earnings forecast is generally lower, and the value shrink

[18] https://www.lesechos.fr/economie-france/dossiers/0301744716031/reforme-des-retraites-ce-que-veut-faire-macron-140500

significantly, which makes the French have always been highly suspicious of the funded pension.

In turn, public pensions play an important role in reducing poverty and thus ensuring social stability, and this point is proved by the comparative study between France and Britain: Britain and France have similar levels of ageing and stress in the EU (the population aged over 65 in Britain and France both account for 16% of the total population, and the support rate is 24.9% and 25.6% respectively[19]), but their pension systems are almost at either end of the spectrum -- Britain is the country with the highest degree of pension marketization; France is a typical country with a high degree of socialization of old-age care. During the financial crisis of 2008, the poverty rate of British retirees (28.4%) was more than three times that of France (8.8%). Therefore, although France's pension system has a heavy financial burden, it has a better guarantee function and plays a more prominent role in solving poverty in the crisis.

(3) research by French authorities shows that parametric reforms alone can solve the problem of the fiscal unsustainability of the French pension system, making it sustainable in the medium term. If "modest" and less politically risky parameter adjustments can solve the problem, why the need for structural adjustment? !

For the above reasons, keeping the core status of the pay-as-you-go system unchanged has basically become the consensus of all walks of life in France. This means that, at least in the medium term, France insists on state responsibility as the primary focus of its pension provision.

5.2 Reform objectives -- integrate institutional fragments and establish a unified, fair and transparent new system

Unlike previous reforms, which aimed to "reduce the deficit and ensure fiscal sustainability", the keyword of Macron reform is "fair", which points to integrate the debris of legacy system in the history (there are 42 currently), to build a "unified, fair and transparent" of the new system, and the calculation method of pensions is point count system (implemented since 2025).

According to Macron[20], the reform is not a reform for reform's sake, but to enhance the fairness of the system, and will be carried out in a "flexible" and "very gradual" way, with a decade to create a "much more transparent and fair" system. Let people "enjoy the same rights for every euro they share, regardless of when it is paid, and the status of the payer."

According to Macron's statement and other documents, the "fairness" of the system involves the following three aspects:

(1) Intergenerational equity. As noted above, continued parameter reform will lead to intergenerational inequality, so macron proposes to plan ahead for future retirees and ensure "intergenerational solidarity" that "creates national cohesion."

(2) Career fairness and gender equity: attention shall be paid to the differences between insiders and outsiders in pension security system caused by changes in the labor market, especially to women and other vulnerable groups, as they are easy to be excluded or reduced to the labor market and become informal workers, thus being the "outsiders" of the pension insurance. As Macron put it, there needs to be "better security for those who have had their careers disrupted, unstable or non-regular workers, especially women."

[19] Christine Lagoutte, Anne Reimat, "Pension Systems after the Storm: France and the United Kingdom in a Comparative Analysis", *The European Journal of Comparative Economics*, 9(2), p.307.

[20] ttps://www.lesechos.fr/economie-france/dossiers/0301744716031/reforme-des-retraites-ce-que-veut-faire-macron-140500

(3) Industrial equity: especially to break the difference between the public and private sectors in pension security. This needs to be eradicated, and there are differences in pension security between freelancers, farmers and salaried workers.

In summary, if the focus of French pension reform has always been deficit reduction, the next phase of reform aims to be "fair". It is also important to stress that raising the retirement age (to 65), which has been hotly debated and opposed, will not be part of the reforms. But measures to encourage people to work longer will in effect be circuitous to achieve later retirement. Polls show two-thirds of French approve of Macron's reforms.

6. Others branches of French social protections system

(1) An inclusive medical insurance system that covers all the people

France's health insurance consists of a total of three layers: mandatory basic medical insurance, supplementary medical insurance and universal health care, which forms a universal network; the network makes the existence of France's medical insurance system from the original one based on the occupations and covering working population coverage to an inclusive system that covers all the population, and the funding sources have changed from the medical insurance contributions into the combination of taxes and contributions accordingly.

(2) An inclusive system of family allowances

France's family policy was initially designed according to the pure insurance model, which was financed by the employers' unilateral contributions and only covered salaried employees. Later, it was gradually extended to the whole population, that is, all families with two children or more living in France, and it finally became an inclusive system in 1978. Some of the allowences now comes from taxes, in addition to employers' contributions. Family allowances fall into two broad categories; one is the inclusive subsidies; the other one requires a family survey. In recent years, in order to reduce the deficits of social security funds, the amount of all inclusive allowances gradually decreases, while the household survey allowances gradually increase. The main objectives of the current family policy can be summarized as: promote fertility; reduce the burden of raising children for poor families and reduce poverty; reduce the burden of child care for women, help and promote women's employment or career stability, achieve equal employment and reduce unemployment.

(3) The unemployment insurance system, from unemployment assistance to employment incentives

When the modern social security system was established in France, it was the golden age when the economy was developing rapidly and the labor supply was in short supply. There was no unemployment problem, therefore, the unemployment insurance system was established ten years later than the whole system. Initially designed to provide relief to the unemployed, the unemployment insurance has gradually shifted from providing relief to encouraging employment in recent years in order to reduce the deficits.

(4) Disability is becoming the fifth biggest risk -- the big debate

With the increase of life expectancy, the number of disabled senior citizens in France is increasing day by day. France has launched a national discussion on the nursing problems of the disabled people, and several ideas have emerged: the first is to emphasize the role of the family, and it is suggested to give priority to the family, supplemented by the state, community and community. The second is to emphasize the role of individual prevention, suggesting the introduction of market mechanisms, institutionalization of disability risk, mandatory purchase from the age of 50. The third is to emphasize the mutual assistance among all the people and the responsibility of the state. It is suggested that within the framework of the current social insurance system, "disability insurance" shall be established for the disabled senior citizens and the disabled, making it the fifth branch of social insurance, with social security contributions. The government is now emphasizing a three-pronged approach.

7. Concluding remarks and some Reflections

We summarize the above analysis as follows:

(1) After the World War II, France established a fragmented pension insurance system based on occupational insurance with almost only one pillar of pay-as-you-go system (mandatory basic endowment insurance + mandatory occupational annuity), which provided a relatively high level of pension security; poverty reduction and prevention have played a prominent role. However, the ability to cope with the change of population structure is weak, and the problem of fiscal unsustainability is gradually highlighted and aggravated with the continuous aging of population.

(2) In order to solve the problem of fiscal sustainability, since the 1990s, France has carried out several rounds of reforms with parameter adjustment as the main content, and at the same time, it has built up the pillar of funded pension. On the whole, the pay-as-you-go pillar of the reform is still overwhelming, and the funded pension is very small; **the state remains the main provider and guarantor of French pension benefits, and the market plays a negligible role**.

(3) The effect of parameter reform on income and expenditure reduction is obvious. The financial situation of pension fund has been significantly improved. At the same time, the reform has brought about the damage of intergenerational equity, the shrinking of pension, the difficulty of receiving full pension and other consequences, leading to the decline of the level of security and the dualization of pension security. In view of this, Macron's government aims to improve the "fairness" of the new round of reform. It aims to integrate the highly fragmented system and establish a more transparent and fair unified system. Take precautions and attention is paid to future retirees and the growing number of non-regular workers. In other words, after the initial settlement of the fiscal sustainability issue, France shifted the direction of pension reform to social sustainability.

(4) In the foreseeable future, on the one hand, France will stick to its current state-based pension structure, with most French agreeing to lower their payment levels in exchange for maintaining the existing pay-as-you-go system. On the other hand, the ranking of Melbourne Mercer Global Pension Index shows (see table 1) that the fiscal sustainability of France's pension system is still relatively serious compared with other countries. It is suggested that France should appropriately increase the pillars of the funded pension and raise the retirement age to make the system more stable. The French government has taken a cautious approach to raising the retirement age; it does not plan to force it through legal means, but to encourage postponement in a roundabout way.

(5) The reform of pension system involves not only pensions, instead, it is systematic engineering. For example, after the reform, due to the shrinking pension, the increasing number of people unable to get full pension, and other factors, the state spent more on unemployment insurance and elderly assistance. Studies show that 15% of the 14 billion euros saved by reforms in 2010 was spent on additional bail-outs. For example, to offset the substantial increase in the contribution rate of supplementary endowment insurance, the state at the same time has greatly reduced the

contribution rate of occupational injury insurance and occupational disease insurance. Therefore, reform is a systematic engineering that needs to be considered comprehensively.

Table 1: Report rankings of Melbourne Mercer Global Pension Index (MMGPI) [21]

Country	Overall index value	Adequacy	Sustainability	Integrity
Denmark	80.2 A	77.5 B+	81.8 A	82.2 A
France	**60.7 C+**	**79.5 B+**	**42.2 D**	**56.5 C**
Germany	66.8 B	79.9 B+	44.9 D	76.6 B+
Netherlands	80.3 A	75.9 B+	79.2 B+	88.8 A
Italy	52.8 C	67.7 B	20.1 E	74.5 B
Spain	54.4 C	68.7 B	27.8 E	68.8 B
The UK	62.5 C+	57.8 C	53.4 C	82.9 A
Average	60.5	61.1	52	71.6
A>80 B+ 75-80 B65-75 C+60-65 C50-60 D35-50 E<35				

[21] https://australiancentre.com.au/wp-content/uploads/2018/10/MMGPI-Report-2018.pdf

The evolution, status quo and features of the British social security system

1 The core concepts and evolution of UK's social security systeme : a historical review

The formation and development of the British social security system has experienced several important stages. During the period, major institutional systems and principles have undergone major changes, but they still have inheritance and uniqueness.

(1) From initial construction to perfection: taking the Beveridge model as a blueprint

In 1941, Beveridge's report to the Commission, "The Essentials of a Social Security System," contained the basic principles of the construction of many social security systems and became the basic blueprint for the construction of the welfare state in the UK. However, the Beveridge Report did not completely turn all of these principles into actual policies. Later, the ruling Labour Party made several changes to the report. Finally, The main European countries generally choose to adopt a contributory social security system, while the UK retains a social security system that incorporates home-based surveys and directly inherits the Poor Law. The typical feature of the British social security system after World War II is the non-contributory social insurance system, which is a full social service based on direct taxes.

Before and after the end of World War II, the construction of the British social security system entered a fast lane, the White Paper on Social Insurance, which was drafted in 1944, accepted in principle the claim of the reform of the social insurance system in the Beveridge Report， Believing that the government has the responsibility to take measures to prevent people from being trapped in poverty for reasons beyond their control. Through a series of legislation, the National Insurance Law, the National Health Law and the National Salvation Law were implemented in 1948, and the UK has basically established a relatively complete institutional system with the goal of a welfare state.

(2) From reduction to "Thatcher revolution

Since the British social security system is based on the government's responsibility, the institutional structure is influenced by the ruling party's policies. In 1968, the Labor Party government merged the Ministry of National Health with the Ministry of Social Security to implement unified management. In 1970, the Conservative Party came to power to establish a pension system linked to income. In 1985, the Conservative Party proposed the "Social Security Reform - Plan for Change", arguing that it should "redefine the social security system", "should be the joint responsibility of individuals and the state", "individuals must have greater independence and sense of responsibility". The Social Security Act, introduced in 1986, has undergone a series of changes to simplify the system and improve incentives. The Social Security Law, revised in 1992, establishes the basic structure of four types of old-age security plans.

The 1995 pension bill accommodated the EU's requirements for equal rights for men and women. From 2010 to 2020, the age of women receiving public pensions was raised from 60 to 65. At the same time, the marketization process of pension system continues to advance. Curbing spending growth was the main purpose of the reform, government efforted to balance the responsibilities of the state and individuals. The effect of the reform was obvious: the growth rate of expenditure has dropped from 5.4% in 1979 to less than 3% in 1991, and the ratio of social expenditure to GDP has fallen from 43% to 40%.

（3）Remodel the Welfare State (from the end of the 20th century to the present)

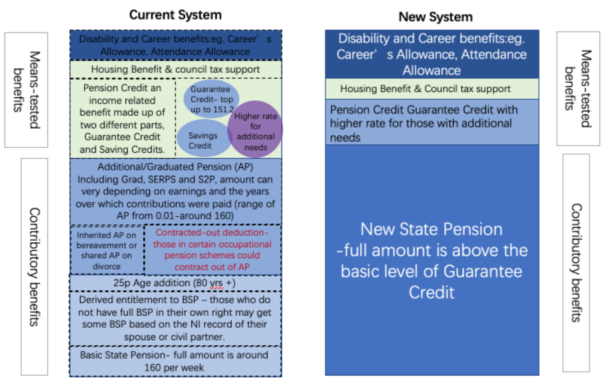
At the turn of the century, the United Kingdom, like the other European countries, still adopted reforms, reductions and "positive welfare" as the themes of the social security systems. The core concepts advocated include "education and education and re-education", "social investment country" and "new social contract". Guided by these mainstream concepts, whether the Conservative Party was in power or the Labor Party was in power, the choice of direction of the structural reforms was consistent.

In 1998, the "New Power of Our Country: The New Social Contract" and the "New Welfare Contract: Pension Partnership" opened a series of new reforms, emphasizing personal responsibility and emphasizing self-help and support capabilities. However, the construction of "new welfare state" does not only emphasize the personal responsibility under "partnership" and the general welfare reduction under "financial sustainability", but pay attention to raising the welfare level of the "bottom line" and the subsidy level for special groups.

Since 2011, The Pension Reform Law abolished the basic pension and the second state pension and merged into a unified public pension. The minimum qualification period in the full field was extended to 35 years

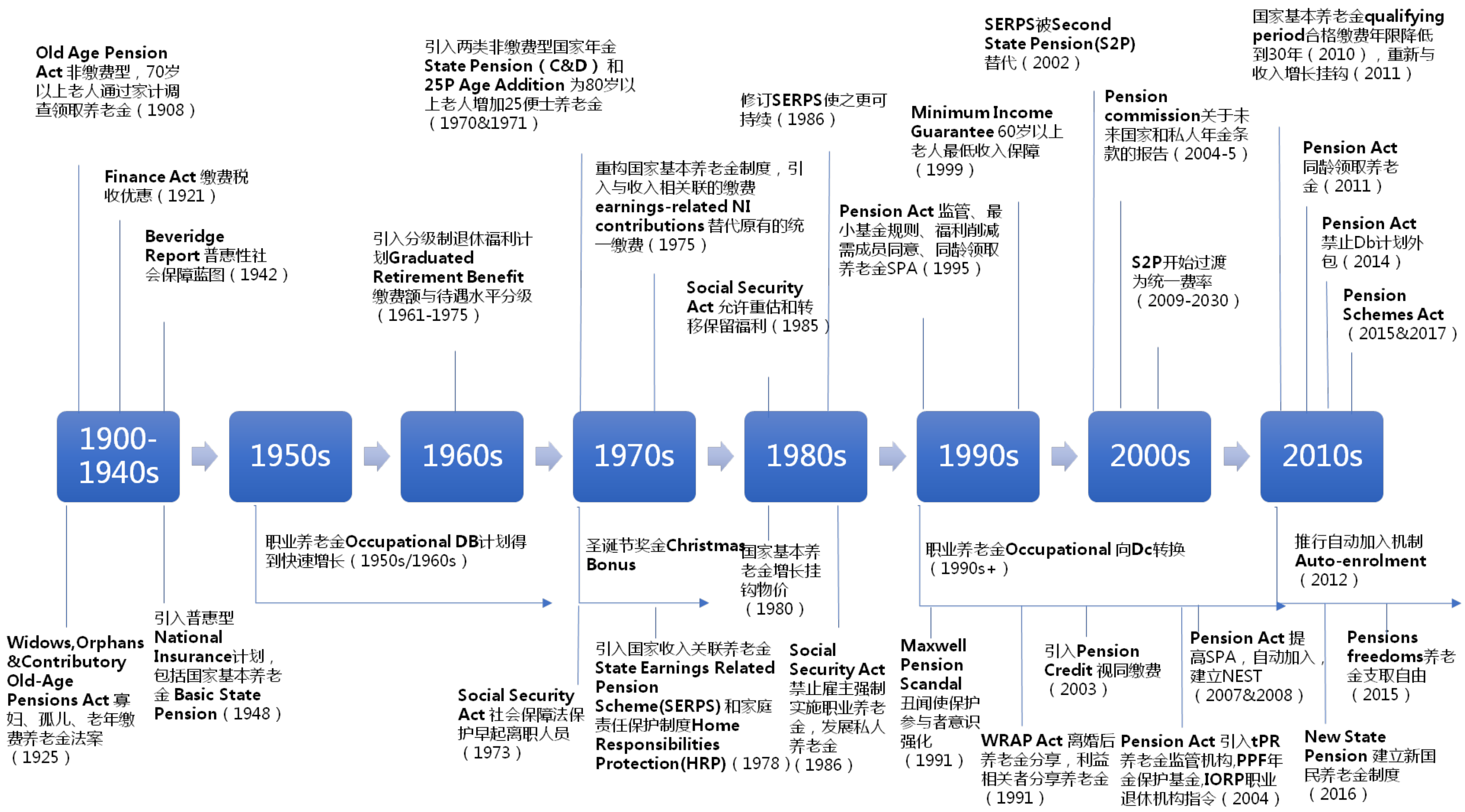
To sum up, From the end of the 20th century to the present, the construction of the new welfare state has been proposed. Under the guidance of the new social contract concept, the system seeks to improve in the bottom line, the promotion of sufficiency and the continuous attention to vulnerable groups.

Figure 1: State Pensions reform context



The figure below presents the pension system since the construction of key bills, time node and major changes in the United Kingdom since 1900, can be seen, the reform of the pension system in the UK has been in frequent adjustments and changes in the continuous improvement process. The combination of structural reforms and parametric reforms, and many pioneering reform experiences are worth learning.

Figure 2: Pensions timeline



2. The institutional design of old-age protection

(1) Pension insurance system

UK's pension insurance system is a three pillars system: composed of State pension, Occupational pension and personal pension。

Pillar 1 is the State Pension.State pension is a low-level Pratt & Whitney scheme (22.1%% replacement rate in 2016, OECD 40.6% in the same period. Pillar 2 is the occupational pension, which is automatically enrolled（an auto Enrolment scheme）. According to the pension act adopted on 2008, employer must *automatically* enrol their employees into a *pension* scheme, which greatly improved the occupational pension coverage. Pillar 3, the personal pension has a relatively higher coverage (43%), accounts for 95.3% of the GDP% (OECD 50% in the same period)

(2) Social assistant system

social assistance is the bottom part of the entire social security system,continue the poverty-alleviation function as defined in the Poor Law. Which is targeted to the vulnerable group, and composed of various types of allowances. It based on the home-based survey, there is no payment, and the income limit is extremely low.

（3） Social service system

The social service system takes the log-ter care system as the core. Recipients include the elderly, the disabled, special children, mentally ill, etc.

Table1: key numbers of UK pensions (2017)

Occupational Pension Schemes	Around 44000
Public sector	4.9 million active members
Private sector	5.4 million active members
Personal Pensions contracts	20.8 million individuals
	(>25% workplace schemes)
Occupational scheme assets	USD 2.2 trillion
Personal Pension assets	1.8 trillion
Citizens over State Pension age	12.7 million
Annual spend on State Pensions	U **USD** SD 180 million

3. Expenditure structure of social protection in UK

From the project expenditure statistics of the UK social security subsystems, we can see the distribution of resources within the system. The top three expenditures are: old-age expenditure, low-income personnel expenditure and child household expenditure.

Table 2 categories of social security expenditures in the UK (2009-2010)

Protection category	**Amount of payout (GBP)**	**Proportion of social security expenditure**
Child household expenditure	34.15 billion	18.11%
2. Unemployment insurance expenditure	4.853 billion	2.58%
3. Low-income personnel expenditure	41.584 billion	22.08%
4. Elderly expenditure	78.411 billion	41.64%
5. Disability expenses	28.565 billion	15.17%
6. Loss of loved ones	665 million	0.36%
7. Other expenses	153 million	0.08%
total	188.366 billion	100%

Source: International Department of the Ministry of Finance, "Overview of the UK Social Security System", website of the Ministry of Finance, http://gjs.mof.gov.cn/pindaoliebiao/cjgj/201304/t20130409_813504.html . Supplementary note: After the withdrawal of the UK Ministry of Social Security, the relevant functions are integrated into several other departments, and the statistical calibre has changed since 2010.

4 The main features of UK's social security system

The payment and benefits of NI system

The payment standard of the National Insurance (National Insurance) system is divided into four categories. The scope of application and the payment status are shown in Table 3 below.

Table 3: NI Payment Categories and Standards (2019)

	Employee category	Income range	Rate
Class 1	Employees earn more than £162 a week and are within the national pension age, and employers will	Weekly income is between £162 and £892 (£702 to £3,863 per month)	12%

	automatically deduct the employee’s salary.		
Class 1A or Class 1B	The employer pays the employee’s insurance premium or benefits directly	Weekly income exceeds 892 pounds (more than 3,863 pounds per month)	2%
2 types	For self-employed persons, if the annual income is less than £6,205, there is no need to pay (but you can choose to pay voluntarily)	Self-assessment is required, and the individual fills out the return form each year.	The National Tax Customs Administration (HMRC) informs the National Insurance contributions based on the scope of payment of the applicant's personal income tax
Category 3	Voluntary contributions to fill or avoid insufficient effective payment years in national insurance records		
4 types	Self-employed and earning more than £84,400 a year	Same as above	Same as above

Source: The authors summarize the policy content on the UK government website https://www.gov.uk/national-insurance/national-insurance-classes .

(1) The State-led, the cooperation between the participating entities and the division of powers and responsibilities are more clear.From the perspective of funding sources, the UK's social security system is state-led. The government has played a “main channel” role in funding, providing nearly 1/2 of the funds (48%), and the company “contributed” a quarter, individual contributed 15%.

(2) The well-structured system, with different natures are in parallel, and each level complements each other. The British social security system was established early and the system was complete. The social security construction marked by the Beveridge report left an important contribution to the world. The social security system for working-age people in the UK has evolved into a complex of contributory, mean-test, universal benefits and private supplementary guarantees.

(3) The reasonable classification, the project coverage is comprehensive and the function is complete, and the guarantee is fully embodied. The division of labor in the UK's social security is reasonable. Of course, the functional division is only relative and basic. In fact, the functions of each content have a cross. In any case, the various projects of social security work together to achieve the goal of the British social security system.

(4) Emphasis on inclusivity, achieving bottoming with a lower level of protection is crucial for the fairness. As the core system of British social security, the new national pension system is a universal system that covers the whole people. It enjoys lower thresholds and better fairness. However, the level of protection of the Pratt & Whitney system is extremely limited, which ensures the controllability of the financial risks of the system.

(5) Balance efficiency, emphasize contribution responsibility and enterprising awareness are important to for motivation. The relationship between the bailout system and the achievement of

employment is at the core of the 2012 Welfare Reform Act, which is based on a new set of delivery mechanisms and will operate as a dynamically adjusted income supplement, based on the claimant. Changes in job income gradually adjust the amount of income support to ensure that “work is profitable”.

(6) The approaches of helping the weak and the poor, fully taking care of the disadvantaged and special groups highlight the humane care. Well-designed system shows the support and preferential treatment for vulnerable groups and special groups. For example, the accounting of the “effective payment year”, the design of the subsidy system, and the refund of taxes, etc., all have special support for the sick, disabled, unemployed and those responsible for the care. From the perspective of the increasing proportion of social security payments to poor families, increasing the payment of poverty to poor families is one of the notable trends in the development of social security systems in Europe. The situation in the UK proves this trend.

5. What can we learn from the UK’s experiences

(1) Clear rights and responsibilities are the basis for the sustainable operation of the system

After nearly 40 years of continuous reform, the UK pension insurance system has successfully transitioned from a “dominant responsible” government to a “moderately responsible” government in terms of government roles, and transferred responsibility to individuals and businesses at a lower cost. It embodies the unique wisdom of British politics, and the reasonable definition of the rights and responsibilities of institutional subjects is a key step. Clear powers and responsibilities are first and foremost dependent on sound and timely legislative work. Legislation first, this is both a British practice and a common experience in the reform of the modern social security system.

(2) Synergistic promotion of parameter reform and structural reform

The British public pension has experienced several successful structural reforms, and the parametric reforms have served as a pre-preparation and precision correction. In the face of strong political pressure, parameter reform, as a recurrent tool, can gradually and gradually approach the reform goal; when the parameters are adjusted and the conditions are mature, the structural reform will be qualitatively changed, and the supporting parameters. Reform is a structural reform to stabilize expectations and reduce resistance.

(3) A moderate level of fairness is the cornerstone of institutional justice

Since the establishment of the British pension insurance system, it has established the general welfare of non-contributory elderly people based on household surveys. After more than a hundred years of institutional reform, the foundation of this system has not been shaken, even during the welfare reduction period. The protection is also constantly strengthened. The proportion of guaranteed payments from poor households to total social security expenditures continues to increase. Different countries with different levels of economic development and political culture have different understandings of “moderate” inclusiveness. Generally speaking, the level of public pensions for Pratt & Whitney should be at least slightly higher than the minimum standard of living. For the lowest income group with the income level of the last 20%, the inclusive public pension income should account for 80%-100% of their total income.

(4) The right linked to obligations is the guarantee of institutional vitality

When "active aging" and "co-administration of aging" become the core concept of meeting the challenge of aging, the relationship of rights and obligations will also become the basic logic that is increasingly emphasized in institutional reform. The UK basic pension system has a strict annual eligibility limit, and the longest qualification period is more than 35 years. Moreover, the pension standard is strictly linked to the eligibility period. This system design makes the relationship between rights and obligations close. And ensuring a stable and reliable source of contributions to the system is the cornerstone of institutional sustainability.

(5) Employment is the source of social security and should be considered as a core factor

The modern social security system was built in the industrialization period and is closely related to the employment status. Employment and individual contributions are an important source of social security funds. The concept of employment-oriented, human capital investment and activation has made employment and security closely linked. At present, the employment pattern of the labor market has undergone multiple changes. For the "three new" workers (new industry, new business, new model), it is necessary to use "participating in work" rather than "being employed" as a yardstick to measure the flexibility of the system design in detail. In the case of a certain voluntary flexible space, increase the base of payment, the age and the degree of relevance of receiving treatment and collecting thresholds.

(6) The concept of infiltration of consensus is conducive to the reform and steady implementation

Compared with the reforms of some other Western democracies, the reform of the British reform is relatively smooth. One of the important reasons is the British political consultation mechanism. The community has reached a broad consensus on reform. The role of a reform authority with clear responsibilities, professionalism, and political skills is very important. The UK Pension Board has extensive communication at various levels, laying a policy foundation and a public opinion base for the smooth advancement of reforms. In addition, the Pension Board is very politically wise to divide the assessment report into objective analysis and policy recommendations to reduce disputes. After the evaluation report was published, they had extensive communication with stakeholders. After several levels of negotiation, the parties concerned finally realized the benefits compromise.

(7) The social security system cannot ignore the absolute minority interests

In the design and parameter reform of the UK pension insurance system, the interests of some "minorities" have been covered and carefully considered. The core function of the social security system is largely to "complement the short board" and "block the omission". The degree of perfection and humanization of a country's social security system is not determined by the strength of the socially advantageous population and the mainstream population. It is to see whether the system design includes and fully considers the interests of the "absolute minority" of the society. For developing countries with unbalanced development and significant social stratification, in the process of social security system is becoming perfected and mature, it should be paid early attention to and take into account the interests of the "absolute minority" population, in the balance of full coverage and special care.

The Italian Pension System : Reform and Future Trend [22]

Italy is one of the first European countries to explore the establishment of a social security system to cope with the risks of industrialization, and has basically completed the construction of a welfare state system in the 1970s. Although in the early 1980s Italy's social security system has exhibited shortcomings, such as sustained growth of the fiscal unsustainable pressure, the lack of response to post-industrial society new risks, until the 1990s, Italy has begun to implement a series of reforms by taking the domestic political changes and economic crisis as an opportunity, and under pressure from the EU. On the whole, the reform has strengthened the role of the market and individual responsibilities, moderately reduced the state responsibility and burden, and rationalized the structure of social expenditure.

1. A brief history of Italian Pension System

Main features of the Italian pension system before the 1990s

During the Golden Age (1945-1975), Italy has expanded the coverage of employed workers, creating new pension schemes for the self-employed in various industries. It has established a pension assistance system that does not require payment but requires funds from tax. The pension fund operation mode is pay-as-you-go system, with the pension calculation mode being defined-benefit. Italy's pension sector has already faced the challenge of fiscal unsustainability in the 1980s. On the eve of the reform in the 1990s, Italy's pension system has the following two salient features.

(1) Public pension is absolutely dominant, and the development of supplementary pension is seriously insufficient

The development of Italian pension system is deeply influenced by Bismarck and Von Tarver's thought on the construction of welfare state. From the era of liberalism, to the era of Fascism, and after the World War II, the responsibility and role of the state in the construction of pension system are increasingly highlighted. In the Golden Age after the World War II, Italy has built a pay-as-you-go, generous and extensive public pension scheme based on formal employment. Before the reforms of the 1990s, the replacement rate of public-sector pensions was 95% or even 100%, and the salary referred to the last month one before retirement. The replacement rate in the private sector was 80%, with the wage referred to the average of the last five years. Such institutional arrangement greatly limits the driving force for development and space of the second pillar vocational supplementary endowment insurance and the third pillar personal commercial endowment insurance.

(2) The occupational division in the system is strong; the fragmentation is rather prominent

Influenced by Bismarck's thought on the construction of welfare state and limited by Italy's economic, social and political realities, it is difficult to overcome the problem of path dependence for the construction of public pension system in the Golden Age after the World War II. Italy of the First Republic has maintained the stratified and divided nature of the Fascist-era pension system: on the one hand, more generous pension benefits have been provided to public-sector employees to win their loyalty; on the other hand, for the excluded occupational groups, new pension schemes are established. This makes the fragmentation of Italy's public pension system quite prominent.

[22] The author of this section is li kaixuan.

2. The reform of Italy's pension system: driving forces

After the 1990s, the rapid changes in the national and international economy and social situation of Italy (for instance, sustained low economic growth, prominent aging of the population, increasing flexible employment) caused the single-pillar, unfair and fragmented Italian pension system to encounter huge financial pressure, adaptability pressure and management pressure.

(1) Pressures in coping with the aging population, flexible labor market and fiscal sustainability

In recent years, Italy has become one of the countries in Europe with the most severe aging population and the highest dependency ratio of the elderly population. In 1992, the dependency ratio of the elderly population in Italy was 22.69%, increased to 26.875% in 2000, 35.66%[23] in 2016, and 58%[24] in 2050. As a result, the rapid ageing of the population has been one of the main drivers of pension reform in Italy. Italy's flexibility reforms of labor market, introduced in the 1990s, also calls for reforms to the pension system.

Since the 1980s, Italy has been caught between slow economic growth and ballooning public pension spending. From 1980 to 1989, the ratio of public expenditure to GDP in Italy increased from 17.38% to 20.19%, among which the ratio of public pension expenditure to GDP surged from 8.86% to 11.55%, accounting for 56%[25] of total public expenditure and far higher than the European average (43% in 1990).[26] If it is allowed to swell without any reforms, public pension spending will reach around 23% of GDP by 2033.[27]

(2) The standard of pension schemes is not uniform and the unfairness is increasingly obvious

In the 1990s Italy introduced more than 50 pension schemes. Inequality among pension plans, that is, the stratification of different occupational groups, is also significant. Employees in the public sector, for example, enjoy the privileges of "Pensioni Baby"[28], and there are big differences in the bases of calculation for pensionable benefits and substitution rates between them and private sector workers as well as self-employed groups.

(3) Inefficiency of the systematic management and large number of the unpaid & the overpaid

Pensions in the private sector of Italy are mainly managed by the Istituto Nazionale Previdenza Sociale (INPS) and the Istituto Nazionale di Previdenza peri Dipendenti dell' Amministrazione Pubblica (INPDAP). Meanwhile, other industries basically boast their own pension schemes, with different regulatory agencies. This makes the administration of pensions inefficient in Italy.

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23 See world bank database, available at https://data.worldbank.org/indicator/SP.POP.DPND.OL? Locations =IT&name_desc=false, last accessed on 9 October 2017.

24 Elke Loichinger, Bernhard Hammer, Alexia Prskawetz, Michael Freiberger and Joze Sambt, *Economic Dependency Ratios:Present Situation and Future Scenarios*, Working Paper No. 74, sponsored by the European Union' s Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 290647,p.5, available at http://www.foreurope.eu/fileadmin/documents/pdf/Workingpapers/WWWforEurope_WPS_no074_MS13.pdf, last accessed on 8 October 2017.

25 Source: online database of Organisation for Economic Co-operation and Development (OECD), available at https://data.oecd.org/socialexp/pension-spending.htm#indicator-chart, last accessed on 13 February 2017.

26 David Natali, Le Politiche Pensionistiche, in Ugo Ascoli ed., Il Welfare in Italia, Bologna: Il Mulino, 2011, p.58.

27 Matteo Jessoula, la politica pensionistica, in Maurizio Ferrera ed., Le politiche sociali, Bologna: il Mulino, 2012, p.117.

28 "Baby pension" is a nickname for the seniority pension system enjoyed by public sector employees in Italy. Because the number of years required to pay is so low -- 20 (central) or 25 (local) years for male employees and 15 years for women with children, with no retirement age limit -- many public-sector workers start to receive the pension, known as the "baby pension", when they are less than 50.

The failure to pay pension contributions is serious in Italy. According to a 1980 survey of more than 10,000 enterprises conducted by the INPS, about 42% of employees have ever been failed to pay social security benefits by their employers.[29] In addition to missed payments, there is the problem of one person receiving multiple pensions. By the end of the 1990s, about 30% of people were receiving multiple pensions; 42% of retirees, i.e. about three million people, were under 65; a quarter of the 2.3m people on seniority pensions were under 55.[30]

3. Reforms Since the 1990s

Since 1992, Italy has implemented no less than six structural and parameter reforms, both large and small, with the main goal of tightening pension expenditure and achieving fiscal sustainability.

(1) Parameter reform and structural reform of public pension schemes

Italy has had three major reforms to its public pension system since the 1990s, in 1992, 1995 and 2011.

In 1992, the Reform Act (or Riforma Amato) of the Amato Government was regarded as a foundational parameter reform. The details are as follows: 1) raise the retirement age for employees in the private sector from 55 to 60 for women and from 60 to 65 for men; 2) increase the contribution period -- phase out the " Pensioni Baby"[31] for employees in the public sector and increase the contribution period of the seniority pension to 35 years; the minimum contribution period for employees and self-employed workers has been raised from 15 to 20 years; 3) the bases of calculation for pensions in the private and public sector have changed from the average salary in the last five years and the last month's salary to the average salary in the last ten years, with at least 15 years' contribution records; 4) for new workers entering the labor market, the amount of pension will be calculated on the basis of their salary throughout their working life; 5) remove the generous indexation mechanism and link pensions only to the rate of inflation.

Riforma Dini in the 1995 was viewed as a major “Copernican” reform because of its structural reforms. The most prominent of these is the introduction of the Nominal Defined Contribution (NDC). The nominal contribution rate of pension is slightly higher than the actual contribution rate, with the calculation rules of pension benefits being changed from the income-associated type to the defined contribution type, and the financing is still pay-as-you-go system. At the same time, a transitional period has been established for the nominal account system: the dividing line was set on January 1, 1996. For those who have paid for 18 years or more, rules of the Amato Reform would still apply; the pension benefits would still be income-associated type. For those who have paid for less than 18 years, the individual nominal account system would be implemented in proportion – the contributions before 1995 would be still calculated by the income-associated type; the contributions afterwards would be based on the defined contribution type of nominal accounts; for

[29] Julia Lynch, *Age in the Welfare State, the Origins of Social Spending on Pensioners, workers, and Children*, Cambridge, New York: Cambridge University Press, 2006, P.174.

[30] ISTAT, *Le prestazioni pensionistiche al 31 dicembre 1999*, Statistiche in breve, 6 giugno, 2000, quoted from Julia Lynch, *Age in the Welfare State, the Origins of Social Spending on Pensioners, workers, and Children*, Cambridge, New York: Cambridge University Press, 2006, P.150.

[31] The early retirement scheme, introduced in 1956 for public-sector workers, is a pension scheme in which anyone with a contribution period of 20 years (15 for women) is eligible. Because of its loose qualifications, public-sector workers often receive a "baby pension" before they turn 50. See chapter 2, section 3.

those who enter the labor market after January 1, 1996, the personal notional account system shall be adopted. Each year, individuals' nominal assets are revalued based on the average nominal growth rate of GDP in the last five years. At the same time, the accumulative total contribution earnings for laborers are calculated through the “Conversion Coefficient” (or coefficiente di trasformazione), with the conversion coefficient revised every 10 years according to the actual economic and demographic situation.

The pension reform in 2011 took place after the financial and economic crisis. Based on the reform in the 1990s, it absorbed the essence of Berlusconi's austerity measures and featured both parameter reform and structural reform. The main contents include: 1) revise the automatic adjustment mechanism of retirement age based on life expectancy, and adjust it every two years after 2019; 2) increase the pension contribution rate, which is gradually increased to 24% for self-employed groups; 3) gradually realize the unification of gender and industry in retirement eligibility, and the standard for 2018 is 66 years old and 7 months old; 4) fully implement the notional account system. No matter whether it is exempt from Dini Reform in 1995, all pension contributions since January 2012 are included in the contributory defined-benefit calculation method; 4) the seniority pension would be abolished, and the contributive years for early retirement have been increased. For example, from 2016 to 2018, the contributive years for early retirement for men are 42 years and 10 months, and for women 41 years and 10 months. After that, the contributive years are adjusted according to the life expectancy.

Since reforms in 2011, the Italian public pension benefits will depend on the workers’ wages in their entire career, contribution level and years of payment, and are affected by the economic and social development – which is reflected by such factors as the revaluation coefficient (coefficiente di rivalutazione), conversion coefficient and life expectancy, with individual responsibility significantly improved.

Revaluation Coefficient (Coefficiente di Rivalutazione) is used as a key coefficient in calculating the personal nominal total assets annually, which is similar to the billing rate of nominal account and is associated with the average growth rate of the nominal GDP in the first five years. The conversion coefficient relates to nominal GDP growth, inflation and life expectancy. No adjustments were made between 1996 and 2009. The center-left government, which took office in 2006, has changed the rules on the period of revision to every three years; starting in 2019 after the financial crisis, the period of revision has been changed to every two years. The conversion coefficient is positively correlated with the economic development status. After the outbreak of the economic crisis, it continues to decline, and the tilt for the people over 70 years old is strengthened.

(2) Building a supplementary pension system

Italy legislated in 1993 and 2005 respectively to promote the development of collective supplementary pension plan and individual supplementary pension plan. The Amato government once tried to transform the allowance for ending the labor relationship into collective supplementary pension, but it failed because of fierce opposition from social partners. However, there are still three types of supplementary pension: closed (or negotiated) pension fund, open pension fund and personal insurance plan (PIP) for pension purpose.

Before the 2005 reforms, the government of Massimo D 'Alema also expanded the third pillar of the pension system in 2000 by promoting the development of open-end funds and individual supplementary pension schemes through tax incentives. This, in effect, promotes competition between the second and third pillars of the pension fund, while giving workers an incentive to put more resources into pension funds of capitalized operation.

In 2005 the center-right government introduced legislation on supplementary pensions. Workers in the private sector were given six months to consider the ultimate management of the labor relationship allowances and, if they remained "silent", the funds would be put under collective closed-end fund management. The law also contains the content that promotes competition of all sorts of endowment supplement plan, stipulates that laborers could deposit the allowances for terminating labor relation to closed-end fund at will, or open mode fund or individual endowment project; they could be withdrew at will after two years of registration and contribution. However, the advantages of closed-end fund are still maintained: firstly, under the "default" mechanism, the transformation from allowances for terminating labor relationship into collective pension fund is stipulated by collective labor agreement or regional agreement, unless companies have different regulations. Next, the transformation of laborers' allowances for terminating labor relationship from closed-end fund to other form endowment fund, must abide by the management regulations of fund themselves.

In 2006 Prodi's government fine-tuned the "default" mechanism for the 2005 reforms. First, the effective date of the reforms was brought forward to January 1, 2007; secondly, more detailed provisions were made on the management on the allowances for terminating the labor relationship. As stated in the first part of the report in its analysis of allowances for terminating the labor relationship, they would be managed either by default into a collective contractual fund, or by choice into any form of supplementary pension fund, or by the employers.

The main goal of these reforms is to establish a complete supplementary pension system and strengthen individual pension responsibility. Constrained by a fiscal and institutional legacy and by changing economic and social conditions, the reforms have not gone well, but they have helped shape Italy's supplementary pension system.

4. Current state of Italian Pension System

The current pension system in Italy shows the characteristics of an incomplete three-pillar system, or "developing multi-pillar system". The first pillar is the country's statutory public pension plan. There are two levels. The first level is pension assistance, which includes social allowances and pension income subsidies. There is no need to pay fees. The second layer consists of mandatory endowment insurance, and the fund management mode is "pay-as-you-go". The second pillar is supplementary occupational annuity, voluntary participation by individuals, which implements a fully funded system. The third pillar is individual supplementary pension insurance, which is mainly realized through voluntary purchase of open-ended fund or participation in personal pension plan (PIP).

(1) Dominant public pension security

With the progress of reforms in the past 20 years, the fragmentation of public pension plans has been improved. After the reforms in 2012, Assicurazione Generale Obbligatoria (AGO), the general compulsory pension insurance system of the National Social Insurance Agency (or Istituto Nazionale Previdenza Sociale, INPS) covers more than 90% of the workers in the country and It three categories of funds: 1) pension funds for employees of the private sector, including the former FDIP; 2) pension funds for employees of the public sector; 3) special pension management fund for self-employed workers, whose members include owner-farmers and sharecroppers, craftsmen and businessmen. In addition, there are a series of independently operating funds (or Gestione Separata) covering lawyers, journalists and people from other industries, which operate independently of the general system under the jurisdiction of the Social Security Bureau.

Italy's public pensions are funded on a pay-as-you-go basis, with the public finances paid for any excess of expenditure over contributions. After the outbreak of the sovereign debt crisis in 2010, the proportion of public pension contributions in various industries increased slightly. After 2017, the total pension contributions of local governments and the central public sector have increased to 32.65% and 33% respectively. The individual contribution ratio of handicraft workers and businessmen is 23.55% and 23.64% respectively.

Due to the transition period of reforms, institutional heritage, aging, insufficient development of supplementary old-age care and other factors, the current public pension expenditure in Italy accounts for more than two-thirds of the total social expenditure. This proportion is unmatched among EU members. In 2014, Italy's total social expenditure was 28.8% of GDP, of which pension expenditure was 18.5%.[32] This strongly suggests that public pensions are still overwhelmingly dominant in Italy.

(2) The proportion of occupational annuity and private supplementary pension is low and the development lags behind

Since 1993, Italy has introduced legislation into supplementary pension, set up closed-ended or contractual funds, open-ended fund and private insurance plan for the purpose of pension. Only after the reforms in 2005 did the supplementary pension system take shape. The second pillar is supplementary occupational annuity, with voluntary participation by individuals, which is implemented a fully-funded system. Employers and employees all assume the obligation of paying fees, with the contributions entering individual accounts entirely; the payment level of compensatory endowment insurance depends on the accumulation of the accounts and investment income. This part of supplementary pension is mainly operated and managed by the capitalization of closed occupational pension (CPF), original supplementary pension fund (PEE)[33] and open occupational pension (OPF). A significant proportion of occupational annuities in Italy is converted from the original "allowances for terminating labor relationship" (TFR). The third pillar is individual supplementary pension insurance, mainly achieved by voluntary purchase of open-ended funds or joining Piani Individuali pension plans (PIP).

Supplementary pensions in Italy show the characteristics of fragmentation and low participation rate, and there are differences in the supplementary pension rate of workers in different industries. As of September 2016, about 7.61 million Italian workers participated in the supplementary pension plan, of which 5.5 million are employees in the private sector and 3.2 million have personal supplementary pension insurance. These workers each contribute to as many as 469 supplementary pension funds. In terms of industry distribution, the development of public and private sectors is not balanced. By the end of 2015, 37.9% of employees in the private sector, 5.2% of employees in the public sector and 34.3% of self-employed people were enrolled in supplementary pension plans. In total, about 32.2% of workers were enrolled in supplemental

[32] See Felice Roberto Pizzuti, Rapporto sullo stato sociale 2017: Stagnazione Secolare Poduttività Contrattazione Salariale e Benessere Sociale, Roma: Sapienza Università Editrice, 2017, p.19。

[33] The supplementary pension fund program existed before the 1993 reforms.

pension plan[34]s. Compared with other continental and Nordic countries, the role of supplementary pensions in Italy remains marginal. That is why Italy's multi-tiered pension system is known as the "growing multi-pillar system".

(3) defined allowance system for terminating the labor relationship (TFR)

TFR, an Italian allowance established by law in 1982, allows employers to retain 6.91% of employees' salaries and pay the principal and benefits at the end of the contract or at retirement. Allowances for terminating the labor relationship were once seen as a form of deferred payment or compulsory savings. This system plays multiple roles in the construction of supplementary pension system in Italy.

Supplementary pension legislation, which came into effect in 2007, introduced a "default" mechanism for allowances for terminating the labor relationship. If a worker remains "silent" within six months after being employed, the allowance for terminating the labor relationship will be automatically transferred to the supplementary pension fund under the State Social Security Bureau as a collective contractual fund. On the contrary, you can choose to join any form of supplementary pension fund, including personal supplementary pension project, or leave it to the employer to manage – for enterprises with less than 50 employees, it will be retained and managed by the enterprises themselves; for enterprises with more than 50 employees, it will be managed by supplementary pension fund under the administration of State Social Security Bureau.

However, from March 2015, employees can apply for allowances for terminating the labor relationship together with salaries. Under new rules in 2017, companies can retain most of the severance benefits, which can be withdrawn in advance if an employee has been unemployed for more than 24 months. Therefore, the allowances for terminating the labor relationship include the supplementary pensions, deferred wages and the value of unemployment insurance.

5. The pros and cons of Italy's pension reforms

5.1. Positive impact of reforms

(1) The pressure on public finance is eased, and the prospect of fiscal sustainability is foreseeable

Spending on public pensions in Italy has been cut more sharply since the key reforms of the 1990s -- the Amato and Dini reforms. After the financial crisis, the reform of introducing the nominal account system and raising the retirement age significantly eased the expenditure pressure caused by the aging and further reduced the pressure on the public finance. In 1995, the deficit in pension programs managed by the State Social Security Bureau was about 2.4% of GDP. In 2000, it fell to 1%. In 2007, it fell to 0.5%. By 2013 it had risen by 1.3%, thanks to the economic crisis and the looming peak in payments.[35]

After the reform of Monti's Government in 2011, the ratio of the average pension to the per capita GDP of the working people has dropped considerably. In 2016, it dropped by more than half a percentage point compared with before the reform. By 2046, it is estimated that it will drop from 17.5% to around 15%. The worsening trend of pension dependency ratio will also be

[34] Felice Roberto Pizzuti, Rapporto sullo stato sociale 2017: Stagnazione Secolare Poduttività Contrattazione Salariale e Benessere Sociale, Roma: Sapienza Università Editrice, 2017, p.408.

[35] Felice Roberto Pizzuti, *Rapporto sullo Stato Sociale 2015*, Napoli: Gruppo Editoriale Simone, 2015, p.395.

alleviated. Without the reform of Monti's Government, it will soar from 1.20:1 in 2012 to a peak of 1:1.015 in 2046. After the reform, it will increase from 1.20:1 to 1.31:1 in 2026, and then to a peak of 1.13:1 in 2048[36]. According to the 2016 annual report of Italy's Social Security Bureau, the ratio of public pension expenditure to GDP in 2014 and 2015 was 16.68% and 16.69% respectively. [37] Without any reforms, the share of relevant expenditures in GDP is expected to reach as high as 18% in 2015, and then skyrocket to over 21% in 2026 and maintain at the high level of 23% in 2033-2040. [38]

It can be seen that the pressure on public pension expenditure in Italy has indeed been alleviated to a certain extent. However, with the strengthening of personal responsibility under the nominal account and the increasingly stringent eligibility for pension insurance, the risk of increasingly climbing pension relief costs should not be underestimated.[39] Therefore, it is still difficult for Italy to reduce the public pension deficit and ease the expenditure pressure through structural reform of the nominal account type and the difference between the lower accounting interest rate and the higher fund investment yield.

(2) The supplementary pension system has been developed

In 1993, Italy enacted a law to establish supplementary pensions. The Amato government has transformed the allowances for terminating the labor relationship, which have been institutionalized for many years, into supplementary corporate pensions. In 2005, the center-right government introduced legislation on supplementary pensions and set up what it called a "default" mechanism for ending the administration of the terminating-labor-relationship allowances. Workers in the private sector have six months to consider the ultimate administration right to of the allowances for terminating the labor relationship; if they remain "silent", the allowances will be put under the management of collective closed-end fund.[40]

At present, the group that takes part in supplementary pensions in Italy is generally employees in large and medium-sized enterprises, who have the protection of trade unions with a coverage rate of 50% to 80%. Workers in small businesses with fewer than 50 employees, or in industries where unions are weak, have a much lower coverage rate of about 15%. [19] Employees in the public sector have a strong occupational coherence, long career and high replacement rate of public pensions. As a result, the transition from allowances for terminating the labor relationship (TFS) in the public sector to supplementary pensions has been unusually slow.

In 2015, Italian legislation promoted the transition from closed-end funds to open-end funds,

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[36] [Italy] Carlo Mazafiello, "National report on the reform of pension insurance parameters of the China-EU social security reform project: Italy's social security system reform in the past decade", International Symposium on the Past, Present and Future of the Welfare State, Beijing, August 2017.

[37] See the 2016 annual report of the national social security bureau of Italy. https://www.inps.it/docallegatiNP/DatiEBilanci/rapportiannualiinps/Documents/INPS_rapporto_2016.pdf, p.150, last accessed on 14 May 2017.

[38] Matteo Jessoula, La politica pensionistica, in Mauizio Ferrera ed., *Le politiche sociali*, Bologna: il Mulino, 2012, p.117.

[39] Between 1996 and 2013, spending on public pensions rose by about 79 per cent, while spending on pensions rose by 110 per cent. See Felice Roberto Pizzuti, Rapporto sullo Stato Sociale 2015, Napoli: Gruppo Editoriale Simone, 2015, p.396.

[40] On the issue of supplementary pension, the center-left government, which came to power in 2006, revised the 2005 legislation, bringing forward the "silent consent" mechanism to January 1, 2007, and stipulated two ways to manage the subsidy for the termination of labor relations maintained by enterprises: for enterprises with less than 50 employees, the subsidy for the termination of labor relations directly retained by enterprises; Companies with 50 or more employees are required to deposit the allowances into funds managed by the state social security administration.

that is, to accept members of other industries and individuals, and fund members can transfer more freely. This drives competition between closed-end funds and open-end funds. In addition, in the case of economic recession and insufficient consumption, Italy has successively introduced the provisions of early withdrawal of supplementary pension: from March 2015, you can apply for the allowances for terminating the labor relationship together with salaries. A new law was enacted in 2017, allowing companies to retain most of the supplemental pensions, and employees to withdraw early if they have been unemployed for more than 24 months. This means that, for some workers, the allowance for terminating the labor relationship restores its original function as wage subsidy or unemployment benefit.

5.2. Negative effects of reforms

(1) The redistribution capacity of the public pension system is greatly weakened

After the fundamental reform of the Amato Government in 1992, the Copernicus-type reform of the Dini Government in 1995 and the radical reform of the Monti Government in 2011, although the Italian public pension has not completely got rid of the dependence on the financial support, the feature as a compulsory insurance has been prominent; however, based on the internal actuarial principles, the redistribution ability has been very limited, and the personal responsibility has been greatly improved.

(2) The problem of intergenerational inequality will gradually become prominent, and the risk of the flexible employment group falling into poverty in the old age will increase

During the reforms in 1995, a comprehensive system of the nominal accounts was set up for the "old men", "middlemen" and the "newcomers"; fairness has been improved for contemporaries, and the role on retrenching and reducing the replacement rate of the first pillar has been significant, but the price for the reform of "compressing" the first pillar is mainly afforded by the future generations of retirees, there will be a notorious problem of "intergenerational tear". [41]

After the full transition to a nominal account system, the replacement rate of public pensions in Italy will be too low, putting low-income groups at risk of falling into old age poverty. Flexible workers need to supplement pensions, but do not have enough economic strength to withstand the capitalized operation risk of open-end funds.[42] According to the calculations of scholars from the National Social Security Bureau of Italy, by 2046, if people retire at the age of 70 and have paid contributions for 35 years, the replacement rate of public pension for employees may reach about 70%, but the replacement rate for self-employed and flexible workers is only 54% and 57% respectively. [22]

In addition, for flexible workers, even if the replacement rate reaches a high level, the actual level of pension benefits may not be ideal due to the limitation of their own wage income. Even under the optimistic scenario that Italy's economy continues to grow at a high rate and the pension replacement rate of the flexible working group can be significantly increased to more than 80%, the actual pension benefits are only about 1.5 times the minimum pension security. [43]

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[41] [Italy] Carlo Mazafiello, "National report on the reform of pension insurance parameters of the china-eu social security reform project: Italy's social security system reform in the past decade", International Symposium on the Past, Present and Future of the Welfare State, Beijing, August 2017.

[42] Felice Roberto Pizzuti, *Rapporto sullo Stato Sociale 2015*, Napoli: Gruppo Editoriale Simone, 2015, p.32.

[43] Stefano Patriarca, *L'adeguatezza del sistema pensionistico contributivo*, paper prepared for Seminario Scuola Superiore di Economia e Finanze Ezio Vanoni, Roma, 10 Ottobre, 2011. Available at http://www.bollettinoadapt.it/old/files/document/14671patriarca_pensio.pdf, p.23, last accessed on 23 February 2017.

Reform of the Dutch Social Security System Since the Late 1990s

1. The basic structure of the Dutch social security system

The Netherlands is a welfare state of "mixed model", which features both the "continental model" and the "liberal" model, and has built a typical multi-pillar and multi-level social security system. The Dutch social security system, that is, the system of two kinds of different insurance mixed together, so as to provide protection against all kinds of social risk protection for workers: one is the national insurance dominated by the state, and supported by the government tax; it adopts the social insurance scheme of Beveridge model and covers all citizens, and do not associated with employment and income level; it is designed to provide the low level of income protection. The other one is the employee insurance system dominated by social partners and jointly funded by employers and employees; it is the social insurance scheme of Bismarck model, in which employers and employees jointly pay contributions and the eligibility for the benefits is determined by the contributions, and the level of benefits is related to the employment and income. The basic structure of the Dutch social security system is shown in Table 1.

Table 1 Basic structure of Dutch social security system[44]

Type	Content	Coverage	Financial resources	Recognition of qualifications
National Insurance	Basic pension plan (AOW)	All citizens and permanent residents	The income tax on government revenue	Generalised system of preferences (GSP), based on citizenship and long-term residency
	Survivor allowance scheme (AAW)	Survivors with no source of income	The income tax on government revenue	Age limit for household planning survey
	Child allowance scheme (AKW)	Minors under the age of 18	Government revenue	Age limit
	Disability insurance plan (AAW/WAO)	All citizens and permanent residents	Government taxes (income taxes on working people,	Age limit for disability determination

[44] According to the Report on Dutch Social Security System by Song Xiaomin. Song xiaomin, 2011, "The Netherlands", in report on social security system of 30 countries (regions), China Labor and Social Security Press, 2011, 1st edition, pp. 99-117.

			and general taxes (for minors, disabled persons)	
Insurance for employees	Occupational pension schemes	Quasi-mandatory, covering more than 90% of employees	Employers and employees payment	Based on the payment
	Unemployment insurance scheme (WW)	Employees (regular workers)	Employers and employees	Regular workers, work history
	Sickness allowance scheme (ZW)	Compulsory insurance covers all workers and employees	Employer and employee contributions (switching to employer contributions)	Based on the payment
Social assistance	Social assistance	Poor population	Government revenue	Household survey and active employment measures

The Dutch social security system was gradually established and improved in the 1950s and 1960s after the War, which was influenced by the production mode, mainstream values and family pattern at that time. This corresponds to the family model shaped by big industrial production and mainstream Christian family concepts (the male join the workforce, and the female shoulder the responsibility for housework and family care). As the population ages, the women enter the labor market on a large scale and the unconventional employment patterns grow, the Netherlands, like other major European countries, has faced the challenge of coping with old and new social risks under "long-term austerity conditions", and has undertaken continuous reform of its social security system since the 1990s.

2. The social investment since the end of 1990s and its influence on the reform

The reform of the Netherlands is influenced by the theory of "social investment", and its social security system reform is regarded as a model to practice the theory of "social investment". In 1997, when the Dutch government held the rotating presidency of the EU in 1997, it urged European countries to reflect on the role of social policies. It clearly pointed out that "social policies are the elements to promote production" and advocated a new way of thinking about the status and role of social policies.

According to the theory of "social investment", the social security system should have three complementary functions: first, provide necessary help to enable workers to better cope with short-term job changes and the transformation of different stages of life with obvious gender differences; second, improve the quality of human capital reserves; third, in an aging society, provide the generalised system of preferences (GSP) system of minimum income security, build a social security network with a strong security function. And this last point is very stressed in social investment theory. "Minimizing poverty and income uncertainty is a prerequisite for effective social investment," says Esping-Anderson.[45]

In short, according to the theory of "social investment", a "post-industrial" social security system shall have three functions: providing basic security, encouraging employment and human capital investment. Since the end of the 1990s, the reform of the social security system in the Netherlands is to adapt to the new social and economic conditions and constantly improve these three functions.

3. Major measures to reform the Dutch social security system and the future direction

Since the end of the 1990s, the reform of the Dutch social security system mainly has two developing clues: first, insist on the function of providing "welfare", that is, achieve collective social protection by passively providing income security; second, develop "work rights", increase the conditions for the enjoying welfare, and achieve collective social protection by supporting and improving employment.[46]

3.1. Reform of the old-age security system

(1) Adhere to the GSP public pension plan, further expand the coverage of occupational pension, provide the basic income security for retired workers, and guarantee the retirement income of low-income workers.

The first pillar of the Dutch old-age security system is the government-sponsored public pension scheme (Algemene ouderdomswet, or AOW), which is a pay-as-you-go scheme with a universal coverage and a flat rate scheme to provide the basic living security for the retired workers. All residents aged over 65 and between 15 and 65 who have lived in the Netherlands for more than 50 years can claim public pensions. For those who live for less than 50 years, the pension benefits have been reduced proportionately. [47]People who continue to work after they reach retirement age can claim their pensions in full, without any punitive measures, but it is illegal to receive pensions earlier or later. The public pension scheme is funded mainly by income taxes paid by working people, and in 2010 the contribution rate was equivalent to 17.9% of a person's income (capped at €32,738

[45] G. Esping-Andersen, D. Gallie, A. Hemerijck and J. Myles, 2002, Why We Need a New Welfare State, Oxford, Oxford University Press, p.5. quoted from Anton Hemerijck, 2017, “Introduction”, in Anton Hemerijck ed., The Uses of Social Investment, Oxford: Oxford University Press, p10.

[46] Mara Yerkes & Romke van der Veen, 2011, “Crisis and the Welfare State Change in the Netherlands”, in Social Policy & Administration, vol. 45, No. 4, p433.

[47] If you live in the Netherlands for less than 50 years, you lose 2% of your benefit for every year you miss. After retirement, people living alone can receive a pension equal to 70% of the minimum wage; married couples receive pensions equal to 50％ of the minimum wage. In 2012 the pension pot for those living alone totalled €13,713, with a replacement rate of 30%; a retired couple's pension pot amounts to 19,130 euros.

a year). [48]

Since the establishment of the old-age security system in the Netherlands in 1957, the contribution rate has been automatically adjusted, and the annual contribution level needs to be determined to ensure that the public pension plan can make ends meet. Due to the change of external conditions such as demographic structure, in the late 1990s, the Netherlands reformed the rules of public pension contribution, stipulating that the annual contribution rate was capped at 18.25% of personal income, and the public fiscal expenditure made up the fund gap of the public pension plan.[49]

The second pillar of the Dutch old-age security system is the "quasi-mandatory" occupational pension, dominated by social partners, which provides workers with supplementary income linked to their level of employment, on top of the flat-rate public pension. Generally, occupational pension plans are negotiated by employers and employee organizations as part of collective wage agreements. The Dutch old-age security system aims to have public and occupational pensions combined to replace workers' retirement income at 70% of the average wage.

First, insist on the "bottom line" role of the the public pension in the multi-level, multi-pillar pension security system. Despite its well-developed occupational pension system, the Netherlands has not seen any radical changes to its public pension schemes. In 2009, the Netherlands proposed to raise the mandatory retirement age in order to reduce public spending, but it did not significantly reduce the level of benefits of public pension schemes or change their nature of benefits. On the contrary, in view of the increasing number of transnational working population in the Netherlands, the Netherlands has taken measures to reform the conditions for the application of pensions, facilitate the transfer procedure, and ensure the pension rights and interests of transnational working population.

Secondly, the participation rate shall be expanded for the occupational pension schemes that cover more than 90% of the population, and the low-income groups and non-conventional employment groups shall be encouraged to join the occupational pension schemes. Thanks to a scheme known as the chartered contribution base [50]for occupational pensions in the Netherlands, low-paid full-time workers receive most of their retirement income from public pensions, reducing their incentive to continue working. In order to expand the coverage of occupational pension and increase its role, the reform trend is to decouple the chartered contribution base of occupational pension from the public pension plan[51]. Chartered contribution base was negotiated jointly by employers and employees as a part of the labor contract, because the proportion of older workers

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[48] See OECD, Ageing and Employment Policies：Netherlands 2014, Paris,2014, pp52-53; Anderson, K.M., "The Netherlands: Reconciling Labour Market Flexicurity with Security in Old Age",in K. Hinrichs &M. Jessoula(eds.), Labour Market Flexibility and Pension Reforms, Houndmills, Basingstoke, Hampshire New York:Palgrave Macmillan, 2012, pp203-230.

[49] This adds to the burden on public finances, which in 2009 accounted for about 5.1% of GDP. See http://data.oecd.org/socialexp/pension-spending.htm#indicator-chart，last accessed on 12 December,2015.

[50] Only workers with an annual income above a certain level can join an occupational pension plan, known as a franchise, that allows workers above that level to join an occupational pension plan and receive an occupational pension in addition to the public pension to supplement their retirement income. Low-paid full-time workers, who receive only public pensions, have a relatively high replacement rate, and thus receive little benefit from occupational pensions. Generally speaking, the chartered contribution base is similar to the level of public pension benefits, but the specific chartered contribution base is determined by pension funds and pension contracts signed between employees and employers.

[51] Currently, tax policy allows a minimum franchise contribution base of €10,040 a year, less than public pension benefits. Most occupational pensions, for individual employees (as opposed to couples), typically have a franchise contribution base of between €10,040 and €14,000.

engaged in part-time job in the Netherlands is very high;[52] for those workers who are engaged in part-time job, chartered contribution base will be reduced in proportion because of their working time, to ensure that these workers also can obtain occupational pensions.

(2) Reduce institutional barriers to the employment of senior workers and increase the employment rate of senior workers

In order to improve the employment rate of senior workers, the Netherlands has further reformed occupational pensions to reduce the possibility of early retirement while raising the retirement age. Until the 1990s, a large number of early retirement schemes (VUT) existed in the Netherlands, which was the main reason for the relatively young actual retirement age of the Dutch labor market. After 1997, these early retirement plans were converted into actuarial occupational pension plans. By 2015, all early retirement plans have been terminated. As a result, the proportion of retirees in the age groups of 55-59 and 60-64 decreased significantly. In 2006 more people aged 60-64 were in early retirement than those were working, and more people in this age group are now working than those who retire. After years of reforms, for most workers, it is no longer a good option to withdraw from the labor market by early retirement before the age of 62. Low contribution rates and a shift from a final-income plan to an average income plan, such reforms will extend the required contribution period.

The third pillar of the Dutch pension system is individual insurance: including life insurance and tax-advantaged individual pension savings. Individuals who are not fully covered by occupational pension plans can opt for individual insurance on a voluntary basis, and both life insurance and individual pension savings enjoy the same tax benefits as occupational pensions. The Netherlands launched the individual lifetime savings program in 2006 with the aim of giving workers a better work-life balance on a voluntary basis and maintaining human resources. But a 2010 assessment found that 50% of participants in individual lifetime savings program saw the plan as an option to achieve early retirement. As a result, the scheme is being phased out. By December 2011 only accounts worth 3,000 euros will remain in place until 2021, and from 2012 no new individual savings accounts will be opened. Those with less than 3,000 euros in savings as of December 2011 were returned to individuals after taxes were imposed.

3.2. Reform the medical security system to achieve universal coverage and deal with the risks of aging

With the continuous aging of the population and the increasing employment rate of women, the risks of aging have become increasingly prominent and complex. In addition to income security, the medical and long-term care problems of the elderly have also become increasingly prominent, and the risk of poverty of the elderly caused by the demand for medical care and nursing has increased. Therefore, in the context of tight public financial expenditure, the Netherlands has expanded the coverage of basic health insurance and special health insurance (care insurance) to meet the basic needs of the elderly population.

The health care system in the Netherlands consists of two mandatory, state-led social insurance schemes, both of which cover the entire population on a pay-as-you-go basis. Private health insurance accounts for a small percentage.

First, basic medical insurance, including primary treatment and obstetric care, which was

[52] The OECD estimates that about half of Dutch workers aged 50-55 are working part-time. See OECD, Ageing and Employment Policies: Netherlands 2014, Paris 2014, pp52-68.

established in 1941 and was initially targeted at the poor. After the reform in 2006, it covered the whole population. The funding sources include income-related contributions (47% of the total funding in 2015), community-determined insurance premiums (36% of the total funding in 2015), out-of-pocket payments (7%), and two government subsidies (10%) to support child care and home care. In 2016 there was a motion to raise the legally mandated out-of-pocket contribution to 885 euros a year, while lowering the annual medical insurance premiums. However, some basic medical services are free of charge, including primary care, obstetric care, home care, user fees for medical equipment, and long-term care for chronic diseases.

Second, the special medical insurance, established in 1968, provides financial support for long-term care for the elderly and disabled, as well as hospitalization for the mentally ill. Sources of funding (2015) include: income-related contributions (73%), government subsidies (18%), and beneficiary out-of-pocket expenses.[53] Special medical insurance covers the cost of nursing care during hospitalization. Before 2007, the cost of home care was covered. After that, the cost of domestic services (after 2007) and the cost of some personal living care (after 2015) are funded by government tax revenue, while the cost of personal home care is covered by basic medical insurance.

In addition to the growing demand for health care in aging societies, the large-scale employment of women has made it impossible for families to provide care services for the elderly. Medical and nursing needs increase the risk of poverty for the elderly. The 2006 health insurance reform expanded the coverage of two health insurance systems to better deal with these new social risks. At the same time, it also increases the financial burden of Dutch society and government. In 2013, the cost of medical care in the Netherlands reached 4,368 euros per person, or 8.9% of GDP. The cost of long-term care in the Netherlands rose to 2,149 euros per person, or 4.4% of GDP, the highest among OECD countries and 2.5 times the OECD average. In 2014, government subsidies accounted for 7.8% of personal medical expenditure (6.3% in 1998 and 7.2% in 2006).

3. 3 Reform of unemployment insurance and sickness and disability insurance: encourage employment, advocate the concept of "work rights", and deepen the link between social policies and labor market policies

In the Netherlands, the concept of enjoying various social security benefits as a "social right" is changing, and the right to enjoy security is linked to the obligation to work actively. Since the late 1990s, the Netherlands has been reforming its existing social security system to increase the participation rate of the labor market. The links between social and labor market policies are becoming stronger. This has been evident in the reform of unemployment insurance and sickness and disability insurance.

(1) Reform the unemployment insurance system to promote employment of the working-age population

Since the beginning of the 21st century, the Netherlands has continuously shortened the period of receiving unemployment insurance benefits and strengthened the regulations requiring the unemployed to actively seek jobs. In the Netherlands, the length of time for people eligible for unemployment insurance is shrinking, from five years to 38 months (2015), and to 24 months in 2019. Social partners can extend the period of receiving unemployment insurance benefits by no more than 12 months in collective labor agreements. In 2004, the Netherlands reformed the

[53] The out-of-pocket rate is determined by the type of care, the income and property status of the beneficiary (excluding the property), and the status of family members.

unemployment insurance system, changing the rule that unemployed people over the age of 57.5 are not required to report their employment status to public employment services; only workers over the age of 64 are not required to report their employment status. After the 2008 financial crisis, the Netherlands has adopted a temporary policy of "partial unemployment" to help competitive companies retain highly skilled workers, allowing employers to temporarily reduce employees' working hours by 20% to 50%. Employees can receive unemployment insurance benefits to compensate for the loss caused by shorter working hours.

(2) Reform sickness and disability insurance to reduce the likelihood of workers withdrawing from the labor market

Sickness insurance in the Netherlands is quite generous. Sick leave typically lasts for up to two years, during which employers will offer compensation equivalent to 70% of the daily payment before the illness, up to 194.85 euros a day. In fact, through collective bargaining, the rate of income replacement during sick leave can be higher, especially in the first year of sick leave, when the replacement rate can reach 100%. As a result, workers over 55 will take longer sick leave than younger workers once they file for the leave, and health insurance also provides conditions for early retirement. To encourage the elder workers back to work, rather than relying on unemployment insurance, or early retirement, the Dutch government provides certain guarantee for employers: if they hire employees over 55 and who have lost their jobs over a year before the employment, for the sick leave that lasts over 13 weeks, the income compensation after the 13 weeks will be borne by the government, through the way of wage subsidies to share the the additional costs that may be produced by employers to hire the elder workers.

Additionally, examine the disability insurance strictly and provide income compensation to encourage the employment of disabled workers. During the expansion of the welfare state in the 1960s, in line with the principle of "solidarity", the Dutch government reformed the disability insurance scheme, and provided income compensation for some disabled people who lost their jobs due to the disabilities; before rehabilitation, some disabled without a job could enjoy full disability allowances indefinitely, which was far generous than unemployment insurance benefits. [54] Therefore, there are a large number of unemployed people among the people claiming disability in the Netherlands, and claiming disability insurance is a common practice for Dutch workers to seek early retirement. Since 2004, the Dutch government has adopted a series of reform measures to strengthen the management of disability insurance and encourage disabled people to continue working. From 2004 to 2009, the Dutch government conducted a series of assessments on the original disability insurance, reducing the proportion of disability insurance claims. In 2002, 0.75% of the over-55s claimed disability insurance. By 2012, that number had fallen to 0.5%. Still, the percentage of workers covered by disability insurance who have regained or partially regained their ability to work remains low. Therefore, in the reform after 2006, the government provides income compensation to some disabled senior workers to encourage them to take jobs that pay less than their original jobs, so as to improve the employment rate of senior workers.

In addition to senior workers and (some) disabled people, the Dutch government also encourages other workers who are not competitive in the labor market (such as the long-term unemployed) to re-enter the labor market by providing wage subsidies, which are an important social expenditure in the Netherlands.

[54] Song Xiaomin, "The Netherlands", Report on Social Security System in 30 Countries (regions) with Zhou Hong as the chief editor, China Labor and Social Security Press, 2011, 1st edition, pp. 99-117.

3.4. Targeting at situations where the burden of care has led to withdrawal of working-age population from the labor market, the government increases the investment in the field of child care, so as to increase the participation rate of the labor market and ensure the healthy growth of children and children, which plays a dual role of promoting employment and ensuring human capital investment.

Based on the Christian tradition of the Netherlands, child care is regarded as family responsibility. The mainstream values do not support state intervention, and the government rarely gets involved in the field of child care. In the late 1980s, with the large-scale employment of women, dependence on families to meet the needs of child care became problematic. Encouraging women's participation in the labor market is an important way to address labor shortages in the ageing society, and to do so it also requires the provision of child care by forces other than the families.

In 1998 the Labor-Liberal Party coalition government announced a new law on child care. In 2002, the Christian Democratic - Liberal Party coalition government agreed on child care act: they rejected the basic care services solution supported by the Labor Party, which is designed to provide basic care services for all children, paid for by employers and employees, and provided by local governments; instead, the government adopted the requirement-led system, namely, parents with such a demand provide subsidies, and they choose their children's caretakers, caregivers, or private childcare facilities. All families with two working or studying parents can apply. At first, employers only volunteered to contribute to child care. In 2007, it became the employers' legal obligation to contribute to child care. At the same time, the scale of government subsidies is growing. As of 2007, parents were responsible for only about 19% of child care costs.[55]

4. The role of market forces in the social field

In order to increase the financial sustainability of the social security system, reduce costs and improve efficiency, the Netherlands gives full play to the role of the private sector in the reform of the social security system and introduces market forces. However, there is no change in the state's responsibility to provide basic security. Market forces are guided and regulated by the government, and mainly play a role of supplementary income and supplementary services.

Take pension system as an example. The pension system in the Netherlands is a typical multi-pillar and multi-level pension system. The occupational pension plan funded by the government and employers and employees is a vital part of the pension system in the Netherlands, in which market forces and market mechanism play an important role. The government's role is limited to indirectly injecting funds into occupational pension plans through tax breaks and other policies. Meanwhile, the government assumes the crucial responsibility of supervising occupational pension plans to ensure that occupational pensions can effectively provide income security for retired workers.

Relying on the developed financial industry of the Netherlands, the occupational pension fund in the Netherlands develops very rapidly and its occupational pension fund is huge. In 2018, the total assets of Dutch pension funds as a percentage of GDP stood at 171%, the highest among OECD countries. All these pension funds go into the financial market and invest in financial products at a

[55] Franca van Hooren and Uwe Becker, 2012, “One Welfare, Two Care Regimes: Understanding Development in Child and Elderly Care Policies in the Netherlands”, in Social Policy & Administration, Vol. 46, No. 1, pp83-107.

profit. In order to protect occupational pension to provide workers with retirement income protection and prevent market risks, the Netherlands implements strict supervision on the management of occupational pension fund. The Dutch government regulates pension funds not for specific businesses, but for the solvency of pension funds, guaranteeing the pension rights of workers participating in occupational pension schemes.

Nevertheless, pension funds operating in accordance with the market mechanism must also face market risks, and ensuring fund returns is a serious challenge for fund managers and the government. Statistics for the last two years show how pension funds are affected by the market. In 2017, total pension funds in the Netherlands increased 3.7% from the previous year to 182.5% of GDP. In 2018, total pension funds shrank 1.2% to 171% of GDP. In 2017, the rate of returns for the Dutch pension fund was 4.5 % and it was negative in 2018 with a return of -3.1%. [56]It can be seen that the introduction of market mechanism in the field of pension security also means the introduction of market risks. Pension security relying solely on the market mechanism will not be a reliable guarantee. It is for this reason that the Netherlands insists on the generalised system of preferences (GSP) in public pension schemes and considers it as the cornerstone of the pension system.

The introduction of market mechanism in the field of social security helps reduce the responsibility of the state and the burden of the public finance; however, it will inevitably bring about market risks. The reform experience of the Netherlands is considered as a successful policy practice of the theory of "social investment", precisely because the state still assumes an important function of "underpinning" while mobilizing market resources and market forces, which on the one hand guarantees the basic needs of workers, and on the other hand creates favorable social conditions for the reforms.

[56] OECD, 2019, *Pension Funds in Figures: Pension Funds Assets in the OECD Area Decline in 2018*, http://www.oecd.org/daf/fin/private-pensions/Pension-Funds-in-Figures-2019.pdf (June 19, 2019)，OECD, 2018, *Pension Funds in Figures: Pension fund assets in the OECD area grew over 11% in 2017, exceeding USD 28 trillion or 56% of OECD-area GDP,* http://www.oecd.org/daf/fin/private-pensions/Pension-Funds-in-Figures-2018.pdf (June 19, 2019).

Spanish Social Security System: Basic Sturcture and Trends of Reform

Spain is a European country with high welfare. In 1978, Spain began to establish a modern social security system. After 30 years of development, the social security system and laws and regulations have been gradually improved. During this period, although there have been several reforms, the basic institutional framework has not changed much and the continuity and stability of the system have been maintained.

At present, Spain's social security system is mainly composed of pension, medical care, work-related injury, unemployment and family allowance, which basically covers the whole Spanish population.

1. Basic structure of Spain's social security system

1.1 Pension insurance

Since the democratic transformation of Spain in the late 1970s, the pension security system has been a pay-as-you-go system with public management as the core, covering employees in 11 occupations in industry, business and service industry, consisting of three pillars: public pension, employer pension and personal account.

Public pension: includes general plan, special plan and non-contributory plan.

The general plan is at the heart of Spain's pension system. It covers all employees over the age of 16 who are not covered by other special plans. It is benefit-determined type and implements the pay-as-you-go system; after 1997, the pension benefits are linked to the CPI, that is, the treatment indexation. 60% of pensioners and 75%t of people who contribute to social security are coered by this plan. In addition, there are special schemes, special schemes for self-employed people, special schemes for agricultural workers, special schemes for fishery workers, special schemes for coal miners, special schemes for domestic workers, special schemes for government employees and other minor systems.

In addition to the public pension system, Spain has a supplementary pension system. The system consists of two main systems - employer pension scheme and individual account scheme.

Employer pension scheme: made up of "pension scheme" and "collective insurance scheme", together represent less than 20% of Spain's workforce.[57] These schemes are often provided by financial institutions and transnational corporations, most of which are set up through collective bargaining.

Individual account scheme: Spain's third pillar, mainly provided by banks and insurance companies; it is expensive to manage. More than 8 million people are covered, with the assets accounting for about 5% of GDP.

[57] Developments in Retirement Programs in Spain, http://www.watsonwyatt.com/us/pubs/insider/printable.asp?ArticleID=17777&Component=The+Insider&page=1

Pensions are highly centrally managed. The central government is responsible for formulating policies, collecting and distributing pensions, and the local social security bureaus are mainly responsible for providing information and business consultation. In addition, as a supplement to the public pension system, Spain promulgated the private pension law in 1987, confirming the free choice and supplementary nature of the new private pension system, providing people with an additional way of pension protection.

1.2 Medical security

In theory, Spain's health care system shall cover all Spanish residents. In fact, it is still linked to employment, and a universal coverage has not been realized. But overall, the national medical system covers 99.9% of the population, and only a few people, including freelancers and employers, are not covered by the national health service. Civil servants are free to choose between the national medical system and private insurance.

1.3. Other items

Unemployment insurance: employers and employees share contributions. The government provides irregular financial subsidies. There are 11 occupational categories covering industry, business and service industry. Self-employed, domestic workers and employees in the public sector are excluded.

Occupational injury insurance: it covers all employees. Among them, public sector employees, self-employed workers and agricultural workers are voluntarily covered; domestic workers are not covered. Some jobs have special plans.

Family allowance: it is a household survey subsidy system, which covers all families living legally in Spain with children. Families giving birth to, adopting or having two or more children do not need family survey.

2. The development of Spain’s social security system : brief history

The social security system in Spain began in the late 19th century. The adoption of a new constitution in 1978 marked the historic transformation of Spain's social security system. Firstly, the state set out to establish a new, unified and institutionalized social security management mechanism to change the past situation of duplication, confusion and inefficiency. Secondly, the universal medical insurance system is introduced and a national medical system is established. Medical expenses are shifted from social insurance payment to government public expenditure. Thirdly, the medical care is transferred from the previous social insurance to the integration of all kinds of insurance; pension insurance, unemployment insurance, medical insurance and other social insurance are integrated into big social insurance (1994), the fund pooling and unified management between the various types of insurance are realized. Finally, health care pushed for a decentralized management system reform, which was completed in 2002. At present, the management division of social security between central and local governments is the motivation of social security system reform.

3. The driving forces of reforming Spain's social security system

(1) Political factors

Political factors are one of the most important driving forces to promote the reform of the social security system in Spain. Due to the strong power of trade unions and the division of political parties, all social security reforms after the democratic transformation are basically based on social consensus and political consensus. In the absence of political consensus, social security reform has been a potential source of high tensions in Spanish society, particularly between the government and trade unions. Five of Spain's seven general strikes, from 1985 to 2003, were triggered by social-security reforms.

In 1995, when Spain decided to push through social security reform through political and social consensus, the parties reached the famous "Toledo Pact", the main goal of which was to consolidate the existing pension system and prevent it from being used as a political tool by parties. The Toledo Pact became the basis for social security reform in Spain. It stipulates that social security reform should be discussed first among political parties and then between the government and trade unions, to ensure that any necessary changes ensure the sustainability of Spain's public pension system without causing conflicts. In 1996 the pact was further expanded as a social and political "consolidation agreement" between the government and the two main trade unions. On October 2, 2003, all parties except the united left approved a series of pension reform proposals that became the updated versions of the Toledo Pact.

(2) Economic factors

The nature of social security system is closely related to the evolution of macro-economy. From 1975 to 1985, after the end of Franco's dictatorship, Spain's GDP growth and employment were below the European average. This decade was also marked by a dramatic "structural transformation" : millions of jobs were lost and the unemployment rate soared to above 20%. Although the 1978 constitution gave all the spanish a legal guarantee of social welfare, the social security provisions in the constitution had to be gradually pushed forward in the face of severe economic difficulties. In 1986, the socialist party returned to power and implemented the economic policy of European integration. Between 1986 and 1990, Spain's economy grew faster than that of other members of the European Community, and the economic recovery led to a huge increase in jobs and a rapid increase in the number of employees who joined the social security system. The number of people enrolled in pension schemes nearly doubled in 1990. But as the U.S. crisis began to spread to European countries, Spain's economy began to decline in 1992, and the growth rate of social security coverage slowed sharply. Falling revenues and a binding convention of European Community have forced Spain to cut public spending and social security subsidies. After the mid-

1990s, the Spanish economy resumes growth, social security coverage expands and the public spending on social security rises further.

(3) Social factors

The promotion of social factors to the reform of social security system is mainly manifested in three aspects. First, population mobility. From the 1950s, Spain began to see a large-scale population migration from rural to urban areas. At the same time, the economic crisis has led to an economic downturn, increased unemployment, and pressure for change to capitalize the pay-as-you-go system. Second, demographic changes. Since the 1950s, Spain has seen a steady increase in the number of people over the age of 65, which is expected to triple by 2050, posing a serious challenge to the sustainability of social security, which takes the public system as the center. As a result, Spain has been exploring alternative models of social security since 1985.

(4) EU factors

The EU factors are mainly reflected in three aspects: first, "European social model" directly or indirectly affects the social security policy in Spain. Second, Spain cannot stay out of the EU directives on social policy. Third, the indirect impact of EU proposals on social policy is sometimes even more decisive than direct action, such as the underlying drive of "Euroconsciousness".

In the late 1980s, for example, the EU proposals to reduce poverty rates among the elderly had a positive impact on the introduction of non-contributory pensions in Spain in 1991. The *Stability and Growth Pact* of 1997 is a necessary consideration for Spain to promote social security reform. The "open co-ordination" proposed by the EU in 2000 helped Spain to overcome its path-dependence on reform and cushion the pressure from domestic interest groups.

4. Challenges to be addressed

Since the beginning of the 21st century, Spain's social security system is facing increasingly severe challenges in terms of population aging and the sustainability of public social security funds, which greatly affects the future direction of Spain's social security system.

(1) Population aging

Spain's pension system faces an ageing population first. According to the statistics, the proportion of the population aged 65 and above in Spain is steadily increasing, and the proportion of the population in this age group will increase from 16.7% in 2007 to 32.1% in 2050. Meanwhile, the old-age dependency rate will rise from 24.2% in 2007 to 59.1% in 2060.

But the impact of immigration on social security cannot be ignored. Since 2000, Spain has received an average of 600,000 migrants a year, 86% of whom are in the 15-4 age group.[58] In the short and medium term, the increase of immigrants, especially young immigrants, means the increase of social security contributions, which is conducive to strengthening the health of the social

[58] Quoted from: Michele Boldrin, Sergi Jimmenéz-Martín, Assessing the Wellbeing of the Spanish Elderly. http://www.econ.upf.edu/docs/papers/downloads/939.pdf

security system. But that would only give Spain "more time" to deepen its social-security reforms without fundamentally addressing its sustainability problem, since more contributions today mean more spending tomorrow. At the same time, the short-term benefits of social security contributions and taxes paid by immigrants are more likely to be offset by increases in some expenditures, particularly education and health care. So rising immigration will not solve the funding problem of ageing.

(2) Sustainability of public social security funds

Since the beginning of the 21st century, Spain's economy has maintained steady and rapid growth, with a large increase in immigration and employment. As a result, Spain's social security reserve fund is functioning normally, and the balance of social security contributions allocated to the fund has been increasing as a share of GDP since 2000. But as its population ages and unemployment has risen sharply in recent years, Spain risks running into trouble with its public social-security funds. Research shows that the substantial increase in social security funds will occur after 2015, and the social security reserve fund, which will support the whole social security system, will run a fiscal deficit in 2020. Among them, pensions will also increase from 7.59% of GDP in 2005 to 15.32% by 2050. Spain's social security net will be under severe financial strain for decades to come.

(3) Excessive public pension benefits

Pension benefits in Spain rose from the early 1970s to the 1990s, and then remained largely stable. In the process, the replacement rate in pension increased from less than 50% in 1969 to almost 100% in 1989, and has remained so ever since, making Spain one of the best-paid countries in the OECD.

5. Reforms since 1985

In 1985, Spain issued Decree No. 26, which kicked off the reform based on efficiency. The law calls for changes to the rules governing access to the pension system, stricter enforcement of access rules, cuts in pension payments and an end to non-contributory pensions. The reforms started two big steps towards reforming Spain's social-security system: an efficiency-oriented fiscal adjustment (such as lowering pension costs, tightening access conditions and strengthening links between contributions and benefits) and a supplementary pension system.

In the early 1990s Spain began to face a shrinking ratio of its social-security contributors to its pensioners; health and social services are running deficits, while the economic crisis has led to rising unemployment. Spain is under pressure to switch from pay-as-you-go to a accumulative system. But with unions and most people opposed, the socialist government was forced to revise the existing system rather than tear it down. In 1995, the government, the main political parties, the two main trade unions, the UGT (Federation of Workers) and the CCOO (Workers' Council), and the CEOE (Employers' Federation) signed the famous "Pacto DE Toledo "(or Toledo Pact), which became the basis for social security reform in Spain. It makes it clear that reforms sall be widely discussed among political parties, the government and trade unions, to ensure that any necessary changes guarantee continuity of the public security system without provoking political conflicts.

The main goal of the Toledo Pact is to make social security funding more sustainable and the system more equitable. The pact confirms the separation of sources of social security funds, with non-contributory pensions paid by general taxes, contributory pensions jointly borne by employers and employees by 28.3% and government subsidies by 35%. It is decided to create a reserve fund to improve the future anti-risk capacity of social security funds; the development of supplementary pension systems and flexible retirement systems would be accelerated; contributions and benefits to maintain and increase the purchasing power of pensions would be increased; the contribution period for calculating pension benefits would be extended from 8 to 15 years. In October 1996, "Toledo pact" was further expanded, being a "agreement of consolidatation" (or Acuerdo DE Consolidacion) between the government and the two big unions.

In the following years, Spain has successively introduced legal documents to strengthen the protection of socially vulnerable groups and expand pension coverage for immigrants. Since 2008, incentives have been offered to encourage delays.

Among the reforms since 2000, one of the most significant changes is the establishment of Fondo DE Reserva DE la Seguridad Social (FRSS), which is mainly aimed at copeing with the possible impact of economic recession on the public security system and strengthening and promoting the rationalization of Social security system. The source of the reserve fund is the financial surplus of each fiscal year, which is used to fund contributory pensions and related expenses. Early social security reserve fund accumulated a large budget surplus. But the estimates say social security spending will exceed social security income between 2015 and 2020, and the surplus will dry up.

6. Debate on reform path and future direction

6.1 Different views on the reform

Where the social security system goes has been the focus of public policy debate in Spain. Despite differences, there has been consensus since the 1990s on the need and urgency of reform.

Currently in Spain, there are four main forces involved in the discussion of social security reform:

(1) **Trade unions**: Spain's trade unions are so powerful that any reform of the social security system is unlikely to bypass them. On pension reform, unions are staunch defenders of pay-as-you-go system. They have two clear points: first, they agree to lower wage increases in exchange for maintaining and improving the social security system; second, allow for higher social security contributions and a boost to the supplementary pension system, while sticking to the existing system. (2) **Employers**: in general, employers advocate privatization of the current system. They support the reform of the existing system into a cumulative system and try to promote the transformation of the social security system through participation. (3) **Government and political parties**: the strategy of political parties on the reform of social security system has always been

that reform should not be the "political tool" of elections, but the basis of building political consensus. The government-led "Toledo Pact" was the beginning of this "consensus strategy". However, this does not mean that the parties do not have their own positions and views on social security reform. The Worker Socialist Party (PSOE) and the Left-Wing Coalition (IU) support a pay-as-you-go system, while the largest opposition party, the People's Party (PP), supports a mixed system that gives priority to private pensions. (4) **Think-tanks**: they mainly refers to the subordinate institutions supported by financial institutions. The think-tanks' main points are: first, 2050 is the tipping point for population change, when the ratio of contributory workers to pensioners will fall sharply, leading to a big increase in pension costs (15% of GDP) and a social security deficit (5.96% by 2050[59]). Second, an immediate shift to private ownership would be politically impossible, and the economic costs of institutional transformation would be enormous (an estimated 2.5% of GDP). Third, a hybrid system of the national minimum security system, mandatory occupational pension accumulative schemes and free individual pension schemes shall be established. But there are divided opinions among think tanks. Some think that the current system shall be maintained on the premise that contributions can meet the pension payment needs to the greatest extent. Others argue for a hybrid system, in which the pay-as-you-go element is retained, rather than creating a cumulative system from scratch. Insurers' representatives argue that the hybrid model is only a transition to full privatisation. Under full privatisation, the state would still be obliged to provide a state pension to those who could not receive a full pension because their contributions can not meet the minimum age requirement.

A comparison of views shows that political pragmatism (from the point of view of governments, political parties and trade unions) and economic realism (from the point of view of banks, financial institutions and insurance companies) drive reform forward. After all, no government is pleased to take radical steps towards privatisation when most of the public supports the current system. This may be a big reason why Spain is accustomed to gradual progress through social and political consensus.

6.2 The overall trend and path selection of the current reform

From the perspective of recent pension reforms, the general trend of Spain's social security system reform at present and in the future shows the following characteristics:

(1) Try to combine alleviating the huge pressure of aging population with reforming the pension system

Spain has had two major pension reforms since the beginning of the 21st century (2011, 2013). The main measures are to increase the accounting age of pension, raise the retirement age, decouple pension from annual inflation, introduce the sustainability factor, and automatically link the initial age of pension to life expectancy from 2019 to 2023, so as to promote the development of pension system to a better contribution model. In addition, with the reserve fund facing exhaustion, the government has tightened pension requirements. The 2013 reform plan will be implemented from January 1, 2019, but the implementation has been suspended due to the failure of the 2019 budget plan.

[59] Gregorio Rodríguez Cabrero, The reform of the public pension system in Spain. www.ipp.csic.es/doctrab2/dt-0213e.pdf

(2) Pension reform has been the focus of the policies of successive Spanish governments, but the uncertain political situation may delay or hinder the reform and adjustment of social security system

Spain has had three general elections in the past three and a half years, and the stability of its current government is uncertain, making it hard for economic and social reforms, including social security reform, to proceed smoothly.

(3) Spain's social security system reform is forced by internal and external pressure, but the implementation is difficult

The World Bank, the International Monetary Fund, the OECD and others have repeatedly urged the Spanish government to take necessary reforms to ensure a sustainable social security system. But the pension reform is hampered by internal constraints and will not be easy to be implemented. For example, in the 2018 budget plan, to win the support of Basque Nationalist Parties, the pension system linked to the annual inflation rate was reintroduced. In the context of the current social security system being not sound, the return to inflation is largely seen as an irresponsible populist measure that will increase the pension budget expenditure in the fiscal budget.

6.3 The debate on the mode of future reform

Regarding the reform path of the social security system in the future, there has been a big debate in Spain. There are several views as follows:

(1) Develop from the pay-as-you-go, payment and defined-income systems to defined-payment models.

Reforms in 2011 and 2013 pushed Spain's pension system from defined-benefit to defined-contribution. Under the 2013 reforms, pensions can only grow by 0.25% in nominal terms if they face a budget deficit. When inflation rises above 0.25%, the purchasing power of some pensioners falls, leaving pensions in a quasi-freeze. Such a reform would be economically and politically infeasible, and Spain's pension system would have to face two choices: to transform the current system into a purely redistributive pension system (Beveridge's System), or to maintain or strengthen the current contribution model and consolidate the existing Bismarck Model. The first option would mean phasing out above-average pensions so that all workers would receive the same pension when they retire. The second option aims to provide a more generous pension for all workers, linking pre-retirement income to retirement benefits.

(2) It's actually moving from the Bismarck Model to the Beveridge Model

Research shows that the pension reform in 2013 led to changes in some key parameters, such as the adjustment of the maximum and minimum pension and contributions, which may lead to qualitative changes in the pension system without being known.

(3) Trade unions oppose the government's radical reform plan, to maintain the status quo

Spain's two main trade unions are opposed to the government's radical pension reforms. The unions are fiercely opposed to the government's proposal to raise the retirement age before previous reforms have been put in place. The debate over Spanish pensions continues. Spain shall decide which pension system is better suited to the realities of Spanish society: moving towards Beveridge pensions system or strengthening the contributory features that underpin its current Bismarck Model? Still waiting for the parties game.