

Occupational Pension Provision in Germany

Robert Piotr Dombek

Abstract

This paper analyses the forms and prevalence of external implementation channels of occupational pension provision after the introduction of the 2018 Occupational Pension Strengthening Act (OSPA) in Germany and their determinants. First, the most important pension reforms of the German old-age pension system since 2001 are briefly explained, before the term occupational pension in Germany is defined and the labour, tax and social security law foundations of occupational pension provision in Germany are explained. Furthermore, the Occupational Strengthening Pensions Act is explained in the further course of this paper. After the external implementation channels of the German occupational pension system are presented, an analysis of the prevalence of external implementation channels, such as direct insurance and pension funds follows. In the final part, we will examine whether the Act to Strengthen Occupational Pensions is the right political tool for strengthening occupational pension provision or whether it would even make sense to introduce compulsory occupational pension provision.

Zusammenfassung

Dieser Artikel analysiert die Formen und Verbreitung externer Durchführungswege der betrieblichen Altersversorgung nach Einführung des Betriebsrentenstärkungsgesetzes (BRSG) 2018 in Deutschland und deren Determinanten. Zunächst werden die wichtigsten Rentenreformen des deutschen Alterssicherungssystems seit 2001 kurz erläutert, bevor der Begriff Betriebsrente in Deutschland definiert und die arbeits-, steuer- und sozialversicherungsrechtlichen Grundlagen der betrieblichen Altersversorgung in Deutschland erläutert werden. Darüber hinaus wird im weiteren Verlauf der Arbeit das Betriebsrentenstärkungsgesetz erläutert. Nachdem die externen Durchführungswege der deutschen betrieblichen Altersvorsorge vorgestellt werden, folgt eine Analyse der Verbreitung externer Durchführungswege, wie Direktversicherung und Pensionsfonds. Im letzten Teil wird untersucht, ob das Betriebsrentenstärkungsgesetz das richtige politische

Robert Piotr Dombek
Department of Law and Social Science
Faculty of Business and Economics
Mendel University in Brno
Zemědělská 1, 613 00 Brno
Czech Republic
Email: robert.dombek@web.de

Open Access – Licensed under CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0>).

Duncker & Humblot · Berlin

DOI <https://doi.org/10.3790/zverswiss.2024.1443303> | Generated on 2025-07-26 04:26:46

OPEN ACCESS | Licensed under CC BY 4.0 | <https://creativecommons.org/about/cclicenses/>

Instrument zur Stärkung der betrieblichen Altersversorgung ist oder ob sogar die Einführung einer obligatorischen betrieblichen Altersversorgung sinnvoll wäre.

1. Introduction

The issue of old-age security has been on the minds of politicians and the public for many decades. For example, German old-age security policy was changed more than 20 years ago with the 2001 pension reform. By modifying the pension adjustment formula, the wage replacement function of the statutory pension insurance was to be weakened with the aim of compensating for the resulting pension gap through supplementary occupational pension provision (Leiber, 2005).

For decades, the Federal Ministry of Labour and Social Affairs has been dealing with the old-age security systems in Germany in its old-age security reports. With richly classified data, the old-age security report provides comprehensive information on old-age security in Germany. In addition to empirical data on statutory pension insurance, data on private and occupational pension schemes are also collected.

The Act to Strengthen Company Pensions (Betriebsrentenstärkungsgesetz) forces every employer to deal with the issue of company pension schemes, because with this law the legislator has passed what are probably the most comprehensive innovations of the last decades. Direct insurance is popular as an instrument of occupational pension provision in German companies. Three out of four companies allow this implementation channel for the establishment of a company pension scheme for their employees. The Pension funds is also very popular and is offered by 18 % of German companies. These are the findings of the IW Personnel Panel 2017 (Pimpertz & Stettes, 2018). Occupational pension provision represents the second pillar of the of the German old-age security system, occupational pension provision is an important but very complex form of old-age provision due to the numerous implementation channels and the different labour, tax and social security law bases (Menzel, 2019).

At this point, it should be mentioned that, in addition to direct insurance, the external implementation channels of occupational pension provision are the Pensionskasse and the pension funds. In English, the Pensionskasse is also referred to as the pension funds. In the further course of this paper, the pension funds are often mentioned, although here it is the German Pensionskasse and not the pension funds that are the subject of research in this paper. Due to insufficient data, the German Pensionsfonds is not the subject of this paper.

In the remainder of this paper, we will refer to employees for ease of reading. However, this refers to all genders. Male, female and diverse.

2. Pension Reforms in Germany From 2001

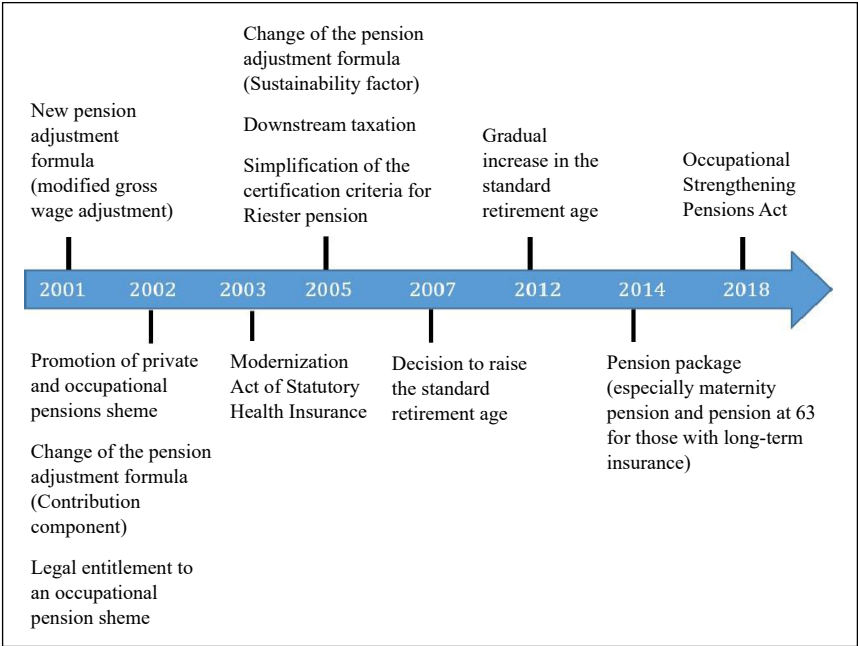
This section briefly presents the main features of pension reforms in Germany since 2001. In 2001, the Retirement Savings Act (AVmG) introduced a private, state-subsidised old-age provision in the form of the Riester pension. The introduction of the Retirement Income Act (Alt-EinkG) three years later aimed at modifying the basic tax conditions of the statutory pension insurance. In this context, the three-layer model replaced the previous three-pillar model (Menzel, 2019), cf. Figure 1. Just two years later, the Act on the Adjustment of the Standard Age Limit (RV-Altersgrenzenanpassungsgesetz) was passed to reflect demographic developments and to strengthen the basic financing of the statutory pension insurance (Caliendo & Hogenacker, 2012). The core of this law was the introduction of a standard age limit of 67 years, which will be implemented with a gradual increase from 65 years to 67 years (German Council of Economic Experts, 2016/17).

Two years later, in 2014, the maternity pension was introduced with the aim of improving the recognition of child-raising periods and the pension at 63 for those insured for many years (Deutsche Rentenversicherung, 2014). After the adoption of the 2014 pension package, no further significant pension reforms followed until the German government passed the Act to Strengthen Occupational Pension Provision (Betriebsrentenstärkungsgesetz) in summer 2017, which came into force on 1 January 2018 (Hannappel & Arentz, 2017) and also (Hofelich & Rein, 2018), reforming part of the second tier of the German pension system.

Considering that occupational pension provision looks back on a history of more than 150 years and was introduced before statutory pension insurance, statutory regulation did not take place until 19 December 1974, 104 years later (Betriebsrentenberatung, 2019). Initially, occupational pension provision consisted of four implementation channels. By the mid-1990s, almost every third employee in the private sector had made provision for old age in the form of an occupational pension. However, the demand for occupational pension provision stagnated in the course of the 1990s (Leiber, 2005) and (Menzel, 2019). A good 28 years later, a legal entitlement to occupational pension provision was established by the 2001 pension reform on 1 January 2002. From this point on, every person in an employment relationship was entitled to occupational pension provision. The aim of the mandatory right to occupational pension provision was to counteract the stagnation in occupational pension provision (Leiber, 2005) and also (Hannappel & Arentz, 2017). However, the health reform of 2003, in which it was decided through the Act on the modernisation of statutory health insurance (GKV-Modernisierungsgesetz) that the full health and long-term care insurance contribution must now be paid on occupational pensions, made oc-

cupational pension provision less attractive again from the perspective of employees (Leiber, 2005). As already mentioned, the Occupational Strengthening Pensions Act (OSPA) ultimately came into force on 01.01.2018. A milestone was set with the introduction of the Occupational Strengthening Pension Act. The Occupational Strengthening Pension Act pursues the political goal of increasing the spread of occupational pension provision through greater demand in order to secure the standard of living in old age (Menzel, 2019) in addition (Kiesewetter et al. 2016). The Occupational Strengthening Pensions Act creates a special incentive to take out occupational pension provision, e.g. through the mandatory passing on of social insurance savings by the employer (Bußler & Sobau, 2019).

Figure 1 illustrates the most important changes in pension policy legislation since 2001.



Source: German Council of Economic Experts, 2016/17, modified.

Fig. 1: Important pension policy changes since 2001

3. Definition of Occupational Pensions in Germany

The term occupational pension is defined in Section 1 (1) of the Act on the Improvement of Occupational Pensions (Occupational Pensions Act – BetrAVG) of 19 December 1974. According to this, an occupational pension exists if an employer promises his employee benefits for old age, disability or surviving dependants on the occasion of his employment (Drochner & Ubelhack, 2013) and (Kiesewetter et al. 2016). Employees within the meaning of Section 17 (1) BetrAVG are blue-collar workers, white-collar workers and trainees who are compulsorily insured under the statutory pension insurance scheme (Drochner & Ubelhack, 2013).

Employer and employee already agree on the commitment in the employment contract or in an addendum to the employment contract, which can then no longer be succinctly changed to the disadvantage of the employee. In the further course of this research work, these types of commitment will be explained in more detail (Schwarz, 2018).

Likewise, according to § 1 para. 2 BetrAVG, an occupational pension scheme exists if certain contributions are converted into an entitlement to an old-age, invalidity or survivor's pension through a commitment by the employer and these are paid to a pension funds, a Pensionskasse or a direct insurance (Drochner & Ubelhack, 2013).

4. Basics of Labour, Tax, and Social Security Law

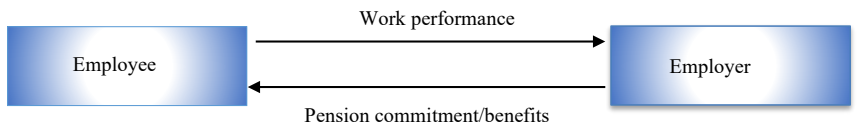
The basis for the legal entitlement to occupational pension provision for employees has been regulated since 1 January 2002 by § 1a para. 1 of the Act on the Improvement of Occupational Pension Provision (Betriebsrentengesetz – BetrAVG) (Schwarz, 2018) and (Drochner & Uberhack, 2013). In addition to this general legal requirement, occupational pension provision is also regulated by the legal bases of labour, tax and social insurance. The following points are regulated by the legal bases of labour law:

- Types of commitment

The employer decides on the type of occupational pension plan. The decision can already be defined in the employment contract if it has not already been regulated by a specific collective agreement. The type of commitment usually involves pensions or one-off lump-sum payments, colloquially referred to as a pension commitment (Kiesewetter et al. 2016) and (Schwarz, 2018). In addition to the employment relationship, the pension commitment thus leads to a further legal relationship between employer and employee, which is why a distinction is made between direct and indirect commitments. A direct commitment is when

there is a two-way legal relationship between the employee and the employer and the employer directly promises the employee the promised benefit.

For better understanding, Figure 2 shows the immediate commitment graphically.

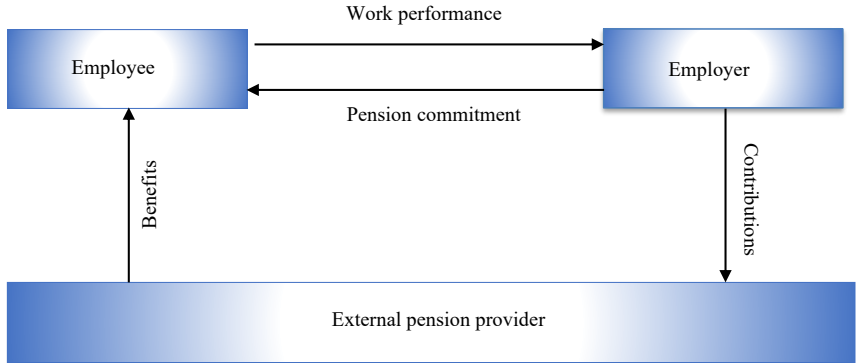


Source: Own representation based on (Schwarz, 2018).

Fig. 2: Direct commitment

An indirect commitment, on the other hand, is when the pension is provided by an external pension provider. Unlike the direct commitment, this is a triangular relationship between the employee, the employer and the external pension provider.

For a better understanding, Figure 3 shows the indirect commitment graphically.



Source: Own representation based on (Schwarz, 2018).

Fig. 3: Indirect commitment

In addition to the distinction between direct and indirect commitments, the law also differentiates between benefits and contributions. Section 1 (1) of the Occupational Pensions Act (BetrAVG) regulates the scope of the pension from the out-set, which is why it is also referred to as a benefit commitment. The object of this benefit commitment is that the employer promises a benefit fixed

according to certain requirements in the event of a pension claim. (Kiesewetter et al. 2016) and (Schwarz, 2018) As a rule, the requirements are based on length of service or a percentage of gross salary (Schwarz, 2018) and (Deutsche Rentenversicherung, 2023). For defined benefit plans, the employer assumes the entire liability risk for the investment and return for the entire duration of the provision. Should it even occur that the available actuarial reserve is not sufficient for the promised benefit, the employer must pay for the pension payments up to the promised amount (Schwarz, 2008), (Deutsche Rentenversicherung, 2023) and (Kiesewetter et al. 2016).

If, on the other hand, a defined contribution plan is agreed, the employer is obliged to pay a certain amount for the pension benefits of his employee. As with the de-fined benefit plan, this benefit expense can be based on a percentage of gross salary or a fixed amount. As a further option, the contribution amount can be linked to other sources such as the development of wages. (Schwarz, 2008) and (Kiesewetter et al. 2016).

The contribution plan with minimum benefit, which was implemented in 2002 in § 1 para. 2 no. 2 BetrAVG. This type of defined contribution is a hybrid defined contribution consisting of a defined benefit and a defined contribution. With this special type of commitment, the employer is also obliged to pay certain sums for his employees with a simultaneous guarantee to pay at least the paid-in contributions minus the price for any insured biometric risks when the insured event occurs. Although there is now also an external pension provider as a third contracting party, the employer is liable for the pension offered due to the costs of conclusion, which reduce the guaranteed pension in the first few years (Schwarz, 2008) and (Kiesewetter et al. 2016).

In addition to the defined contribution plan with minimum benefits, there is also the defined contribution plan, which was only included in the BetrAVG in 2018 and is therefore considered the youngest type of plan. The special feature of this type of commitment is that there is no liability for the employer. This type of commitment is only used in the social partner model (this implementation method will be explained later in the research work). With this type of commitment there are no promised pension and contribution guarantees. Only a variable target pension is promised, which is why the liability risk here lies on the employee side (Schwarz, 2008) and (Deutsche Rentenversicherung, 2023).

- Deferred compensation

Conversion of remuneration is regulated by law in § 1 para. 2 no. 3 BetrAVG. The paragraph speaks of a conversion of remuneration if future remuneration is converted. The conversion must be made to an equivalent pension entitlement (Drochner & Ubelhack, 2013) and (Kiesewetter et al. 2016). When we speak of deferred compensation in colloquial terms, we mean the conversion and thus the waiver of a certain gross salary contribution. The statutory entitlement to

deferred compensation has existed since 2002 and applies according to § 17 para. 1 sentence 3 in conjunction with § 1a para. 1 BetrAV. § 1a para. 1 BetrAVG, it applies to all persons who are compulsorily insured under the statutory pension insurance scheme. On the basis of this legal entitlement, the employee can demand a conversion of the gross remuneration for a company pension scheme (Kiesewetter et al. 2016).

According to Section 1a (1) of the Occupational Pensions Act (BetrAVG), the employer may determine the implementation method of the occupational pension itself, but this provision only applies to a limited extent. If a company pension scheme already exists in the company within the framework of a pension funds, pension funds or a pension institution according to § 22 BetrAVG, the employee can only convert his remuneration into one of these implementation channels. However, if there is no pension scheme in the company and the employer does not want to offer an equivalent implementation path, the employee has the right to convert remuneration within the framework of direct insurance according to § 1a para. 1 BetrAVG (Drochner & Ubelhack, 2013) and (Kiesewetter et al. 2016). For a better understanding of deferred compensation in the context of direct insurance, Table 1 shows a gross-net salary analysis with the following basic data: Man, single, no children, tax class I, statutory health and long-term care insurance. To simplify the calculation, a monthly salary conversion contribution of €100 is assumed.

Table 1
Gross-net salary consideration

	Without deferred compensation	With deferred compensation	Comments
Gross income (€)	2.600	2.600	
Savings contribution (€)	0	100	The employee waives € 100 gross monthly salary
Total gross (€)	2.600	2.500	The gross tax amount is reduced by 100 €.
Wage tax (€)	-340,50	-315,18	The gross salary reduction saves €25.32 in taxes.
Social security (€)	-538,85	-518,13	The gross salary reduction saves € 20,72 in social security contributions.
Net income (€)	1720,65	1666,69	100 € plant costs only € 53.96
Own wall net (€)	0	53,96	

Source: Own representation. Adapted from (Schwarz, 2018). Modified.

The type of tax treatment of occupational pension provision depends on whether it is an indirect or direct commitment (Kiesewetter et al. 2016). The research subject of this paper focuses on the external implementation channels of occupational pensions and thus on the indirect commitment, which is why this chapter deals with the tax treatment from the perspective of the employer and the employee in these implementation channels.

In the case of the indirect commitment, deferred compensation represents an outflow of funds from the employer's point of view. Here, the employer pays contributions to the external pension provider, which are deductible as a business expense under § 4d EStG (Income Tax Act). According to § 4b EStG, the employer does not have to balance the insurance claim. Likewise, contributions to pension funds are treated as business expenses under § 4e EStG (Bundesministerium für Justiz 2022a).

From the point of view of tax legislation, the tax consideration from the employee's point of view is more complex. First of all, it must be examined whether taxable income can be credited to the employee at all according to § 11 para. 1 EStG in accordance with the inflow principle, which expresses that the taxation of income only takes place at the time of inflow. It must therefore first be examined when the inflow has first occurred from a tax law perspective. This is why a distinction is made here between the expectancy phase and the pension phase. Furthermore, a distinction must be made here between internal and external implementation channels due to different tax criteria (Bundesministerium für Justiz 2022a) and (Kiesewetter et al. 2016).

In the external implementation pathways, contributions or allowances are paid by the employer to the pension provider in the vesting phase. From the employee's point of view, these contributions are income from employment pursuant to § 19 para. 1 sentence 1 no. 3 sentence 1 EStG. Furthermore, contributions paid by the employer to a funded occupational pension scheme to a pension funds or direct insurance are tax-exempt if it is the first employment relationship. However, there is no compulsory pension insurance requirement, which is why even marginally employed persons can have a legal claim to occupational pension provision under certain conditions. According to § 3 no. 63 sentence 1 EStG, the tax exemption amounts to 8 % of the contribution assessment ceiling of the statutory pension insurance. Provided that these are employer-financed contributions or contributions from deferred compensation. Pursuant to Section 3 No. 63 Sentence 1 EStG, the future pension payments must be made in the form of a pension or a certified payment plan (Bundesministerium für Justiz 2022a) and (Kiesewetter et al. 2016).

In the event of a pension and thus in the pension phase, the employee receives his previously promised benefit. Pursuant to Section 22 No. 5 of the German Income Tax Act (EStG), the benefits to be received from the external implemen-

tation channels are taxed as other income on a deferred basis. Therefore, the benefits are differentiated according to the following criteria:

- Pensions or capital benefits exclusively from non-subsidised contributions or grants.
- Pensions or benefits exclusively from subsidised contributions or grants.
- Pensions or benefits from both non-subsidised and subsidised contributions or grants.

According to § 9a sentence 1 no. 3 EStG, an allowance of 102 euros is granted for income-related expenses. This allowance applies to any form of the aforementioned pensions or capital benefits (Federal Ministry of Justice) and (Kiesewetter et al. 2016).

Since the research focus of this paper is not on the taxation of pension benefits from an occupational pension scheme, the individual taxation principles of pension benefits will not be discussed further at this point.

From the point of view of social insurance law, the contributions paid by employees subject to social insurance are part of their wages, which is why the contributions paid into a direct insurance or pension funds are subject to social insurance. Remuneration that is not subject to social insurance is excluded from this regulation. This applies, for example, to wages above the income threshold for statutory health and pension insurance. Whether and to what extent social security payments must be made on pension benefits from an occupational pension scheme depends in particular on the type of commitment. Specifically, a distinction must be made here between old commitments under § 40b EStG (commitments up to the end of 2004) and new commitments under § 3.63 EStG (commitments from 2005 onwards) (Kiesewetter et al. 2016) and (Schwarz, 2018). As it would go beyond the scope of this research paper, this chapter focuses on the social security law basis of new commitments of the external implementation paths according to § 3.63 EStG.

As in the case of tax law, a distinction must also be made in the case of social insurance law between the vesting phase and the pension phase. According to this, employee contributions to a direct insurance or pension funds that are paid in the qualifying phase in accordance with § 3. no. 63 EStG are free of social security contributions. This exemption applies up to 4 % of the income threshold of the west German statutory pension insurance. In the pension phase, on the other hand, the monthly pension benefits are fully subject to social security contributions in accordance with § 229 and § 248 SGB V (Sozialgesetzbuch V – German Social Code), which is why the employee must pay contributions for the pensioners' health insurance (KVdR). In the case of a lumpsum payment, on the other hand, contributions must be paid to the pensioners' health insurance scheme for 10 years (Schwarz, 2018) and (Bundesministerium für Justiz 2022b).

If the contributions are paid by the employer, the aforementioned exemption limit also applies to the employer. The advantage for the employer here is the saving of social security contributions on the payments made (Schwarz, 2018).

5. Occupational Strengthening Pensions Act

On 1 January 2018, the Occupational Pensions Strengthening Act (Betriebsrentenstärkungsgesetz) came into force with innovations in occupational pension provision. The main political goal of this law is to promote the spread of occupational pension provision through tax incentives and contribution subsidies. The most important innovation of this law is the social partner model, in which employers' associations and trade unions, also known as social partners, have the possibility to establish collectively agreed pension schemes within the framework of this model (Hannappel & Arentz, 2017). Section 100 of the Income Tax Act (BRSG) forms the legal content and regulates the details of the Occupational Pension Strengthening Act, which are briefly presented in detail.

- Mandatory passing on of social contributions

If the employer saves social security contributions in the context of gross salary conversion, he will be obliged to contribute at least 15 % of the converted gross salary to the occupational pension scheme in the external implementation channels. The obligatory passing on of social security contributions applies not only to occupational pension schemes via the social partner model, but also to occupational pension schemes not introduced under collective agreements.

- Subsidy amount for incomes up to 2,575 euros

For employees with a monthly gross income of up to 2,575 euros, a special subsidy was created by law. The law provides for a minimum subsidy of 240 euros up to a maximum of 960 euros per year when taking out a company pension scheme. The employer, on the other hand, receives a tax subsidy of 30 %. For the employer this means that with the minimum subsidy of 240 euros he receives an annual tax subsidy of 72 euros and with the maximum subsidy of 960 euros he receives a tax subsidy of 288 euros.

- Allowance for basic income support

In order to support persons with low incomes in occupational pension provision, the law introduced an allowance for basic income support. Persons who receive benefits from the basic security scheme at retirement age and who also receive pension benefits from an occupational pension scheme have a tax-free allowance.

- Higher tax incentives

Since 2018, significantly more money can be invested in direct insurance, Pensionskasse or pension funds. With the entry into force of the Occupational Pension Strengthening Act, the support framework was increased from 4 % to 8 % of the contribution assessment ceiling. This corresponds to an annual contribution of 7,008 euros in 2023. In addition, 4 % of the contributions are exempt from social insurance (Hannappel & Arentz, 2017) and (Bundesgesetzblatt, 2017).

6. External Implementation Channels of Occupational Pension Provision in Germany

As already mentioned elsewhere in this research paper, the law distinguishes between the internal and external implementation channels of occupational pension provision. In the literature, the non-insurance (direct commitment, support fund) and insurance (direct insurance, Pensionskasse, pension funds) implementation channels are also usually mentioned (Schwarz, 2018). In the further course of this research work, the insurance type implementation channels, such as direct insurance, pension funds and the social partner model (Benölken & Bröhl, 2018), which has been introduced by the Betriebsrentenstärkungsgesetz since 1 January 2018, will be described in more detail.

- Direct insurance

Direct insurance is a typical life or pension insurance that the employer can take out for his employee. The employer assumes the role of the policyholder and is therefore responsible for the transfer of the premiums. It does not matter whether it is an employee- or employer-financed direct insurance. In addition to the employer as the policyholder, the employee is the insured person, which is why he or she is also the beneficiary in the event of benefits and the insurer pays the pensions or the capital directly to him or her. If benefits have been agreed in a direct insurance policy for the death of the insured person, then these are paid out by the insurer directly to the surviving dependants named in the contract. In addition, a biometric risk, e.g. an occupational disability pension, can be included in the direct insurance if desired (Schwarz, 2018).

- Pension funds

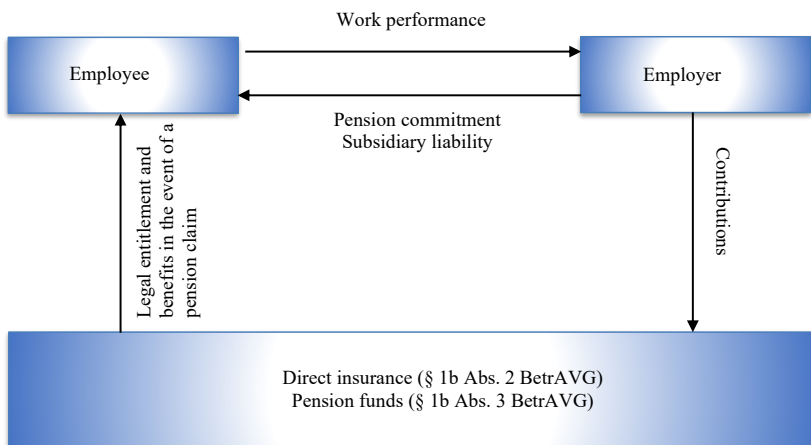
Pension funds are pension institutions with the legal form of a mutual insurance company (VVG) or a joint-stock company (AG). They act independently and have legal capacity. They can be set up and carried by an individual funds, by some group funds or by companies or associations. Pension funds works in the same way as direct insurance. The benefits of the pension funds are financed by calculating a premium according to actuarial rules. Biometric risks are included in this calculation. Due to the insurance business activity within the

meaning of the Insurance Supervision Act (VAG), pension funds must be approved and supervised by the Federal Financial Supervisory Authority (BaFin) (Schwarz, 2018).

There are two main differences between direct insurance and pension funds.

1. Regulatory difference by the Federal Office for Financial Services Supervision.
 - Larger pension funds are deregulated, which means that, like direct insurance, they are not subject to individual supervision.
 - The pension funds must adhere to the actuarial interest rate.
 - The Federal Office for Financial Services Supervision may object to the business plan.
 - Smaller pension funds may be regulated, which means that they are subject to individual supervision by the Federal Office for Financial Services Supervision.
 - Review and approval of business plan and tariffs of smaller funds (Schwarz, 2018).
2. Type of tariff structure.
 - Common tariffs of pension funds usually do not fulfil the tax requirements according to § 3 No. 63 EStG. However, the Federal Ministry of Finance has created an exemption here, which is why the tariffs are considered eligible (Schwarz, 2018).

The following Figure 4 gives a good overview of how direct insurance and pension funds works.



Source: Own representation based on (Schwarz, 2018).

Fig. 4: Functioning of direct insurance and pension funds

7. Analysis of the Spread of Direct Insurance and Pension Funds After the Pension Reforms From 2001 Onwards

Pursuant to Section 154 (2) Social Code Book 6, an old-age security report must be submitted to the German Bundestag once per legislative period. The Old-Age Security Report is structured in five parts and is divided as follows:

- Part A: Benefits and financing of the fully or partially publicly financed old-age security schemes.
- Part B: Income from old-age protection schemes.
- Part C: Total income in old age.
- Part D: Tax incentives and degree of diffusion of occupational and private pension schemes.
- Part E: Total pension level for typical pensioners of individual cohorts.

In this paper section, Part D is subjected to a more detailed analysis in order to gain insights into the spread of direct insurance and pension funds. In the 2005 Old-Age Security Report, § 154 para. 2 no. 4 SGB VI required that the extent to which the tax incentive § 3 no. 63 of the Income Tax Act was used and the degree of dissemination of occupational pension provision be presented for the first time. With the introduction of state subsidies in 2002, occupational pension provision has become permanently more widespread. Until 2001, only 38 % of employees in the private sector were entitled to occupational pension schemes (Bundesministerium für Arbeit und Soziales, 2005). Studies and surveys of employers and institutions on the dissemination of occupational pension provision were conducted by TNS Infratest Sozialforschung on behalf of the Federal Government. TNS Infratest Sozialforschung now operates under the name KANTAR GmbH (Bundesministerium für Arbeit und Soziales, 2005).

In 2003, empirical data on the initial situation and development of occupational pension schemes were collected for the first time. The data was collected in particular with regard to the utilisation of the tax incentive under § 3 No. 63 of the Income Tax Act, which has existed since 2002. The basis of the data collection was a representative survey of employers in the private sector as well as a data collection from all pension funds, statutory supplementary pension funds and life insurance companies offering direct insurance as well as life insurance companies offering direct insurance (Federal Ministry of Labour and Social Affairs, 2005).

The data was collected with particular reference to the use of the tax incentive under § 3 No. 63 of the Income Tax Act, which has been in place since 2002. The data collection was based on a representative survey of employers in the private sector as well as a data collection from all pension funds, public supple-

mentary pension funds and life insurance companies offering direct insurance and life insurance companies that offer direct insurance (Bundesministerium für Arbeit und Soziales, 2005).

The remainder of this chapter presents the results from the employer and provider surveys from the existing old-age security reports 2005, 2008, 2012, 2016 and 2020 of the Federal Ministry of Labour and Social Affairs.

The carrier surveys conducted by KANTAR GmbH show that the spread of occupational pension provision has developed positively since 2001 until 2019. While in 2001 there were 5.6 million active vested rights in direct insurance and pension funds, the number has risen by almost 77 % to 9.9 million in 2019. A particularly strong increase was observed between 2001 and 2005. Since 2013, the spread of direct insurance has lost momentum. Between the years 2007 and 2009, the number of direct insurance policies increased only marginally, while pension funds in 2009 were at the same level as in 2007. After this downturn, a slight increase in the number of entitlements of direct insurance and pension funds has been observed again since 2011. Although there has been no increase in the pension funds since 2017, the number of vested rights has more than tripled to approximately 4.7 million by December 2019 (Bundesministerium für Arbeit und Soziales, 2020).

In the case of direct insurance, an increase of around 6 % from 2017 to 2019 can be seen. In absolute terms, direct insurance entitlements have increased by 24 % since 2001 to 2019. Overall, it can be stated that the expectancies of direct insurance and pension funds have developed rather weakly at 2 % since the introduction of the Occupational Pensions Strengthening Act.

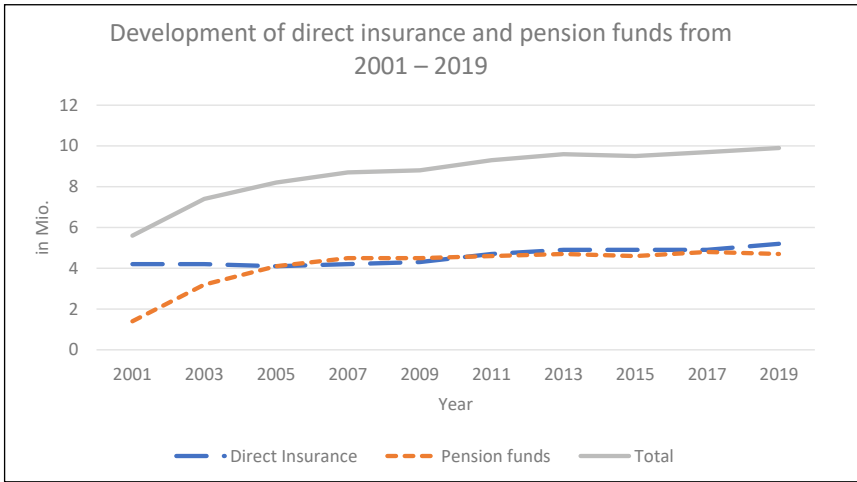
The results on the development of the entitlements of direct insurance and pension funds between 2001 and 2019 are summarised in the following table 2.

Table 2
Development of the number of direct insurance and pension funds entitlements from 2001 to 2019

Year	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	2001 – 2019
	in Mio.										
Direct insurance	4,2	4,2	4,1	4,2	4,3	4,7	4,9	4,9	4,9	5,2	45,6
Pension funds	1,4	3,2	4,1	4,5	4,5	4,6	4,7	4,6	4,8	4,7	41,1
Total	5,6	7,4	8,2	8,7	8,8	9,3	9,6	9,5	9,7	9,9	86,7

Source: Own representation. Based on (Bundesministerium für Arbeit und Soziales, 2020).

The following Figure 5 provides a better illustration of the spread of direct insurance and pension funds since 2001 until 2019.



Source: Own representation.

Fig. 5: Development of direct insurance and pension funds from 2001 – 2019

8. Results

Basically, it can be stated that there have been numerous pension reforms in German old-age security policy since 2001. This number of reforms alone speaks for the fact that the government is already thinking about old-age security and is trying to find suitable solutions to secure the standard of living in old age within the framework of these reforms. The most recent reform was the introduction of the Occupational Pensions Strengthening Act on 01.01.2018.

Looking at the legal aspects of the external implementation channels, one notices that there are also hurdles here. As already described in Chapter 4, a distinction is made in the types of commitment between direct commitment and indirect commitment. The distinction between the types of benefits in the individual implementation channels is also complex. Labour law, tax law and social security law often form a further hurdle for many employers and employees.

The problems mentioned lead to both sides, employer and employee, developing a certain fear of contact and hardly or not at all wanting to deal with the topic of occupational pensions. In addition to the problems already mentioned, there are other obstacles. For example, in the employer survey conducted by the Federal Ministry of Labour and Social Affairs in 2012, 69 % of employers stated

that they had no need or demand from the employee (Kiesewetter et al. 2016). The reasons from the employees' point of view are shown in the following Figure 6.



Source: Own representation. Based on Bundesministerium für Arbeit und Soziales, 2019.

Fig. 6: Reasons for the absence of an occupational pension scheme

Figure 6 clearly shows that 47 % of the employees surveyed do not have a company pension plan because their employer does not offer one. 22 % say they lack expertise and one in five cannot afford occupational pension provision.

With the entry into force of the Act on the Strengthening of Occupational Pensions (Betriebsrentenstärkungsgesetz), a further external implementation channel was implemented in addition to the three existing external implementation channels through the social partner model, which has not made occupational pension provision any less complicated.

The social partner model is intended for the collective bargaining parties. It is also intended to encourage, above all, companies not bound by collective agreements to join a collective bargaining agreement. The idea is that, analogous to a free market economy, mechanisms run between the collective bargaining parties that result in an optimal balance of interests between like-minded negotiating partners.

The legislator's approach of introducing the social partner model was not bad in itself. With the content related regulations of the social partner model, the legislator had created several points that could increase the attractiveness of occupational pension provision again. The obligatory passing on of social security savings of at least 15 %, provided that social security contributions are saved,

was already an attractive approach. The 30 % tax incentive for low-income earners is probably a good approach, but somewhat complex to implement in practice. The establishment of a basic tax-free allowance for recipients of basic social security benefits is also a well-considered and good approach, as is the promotion of monthly deferred compensation contributions. Based on the above-mentioned key points, it is clear that the government is pursuing the political goal of making occupational pension provision attractive for all sections of the population.

If we look at the functioning of the direct insurance and the pension funds alone, as shown in Figure 4, we can see that it is simple and logical in principle. The problem, however, is the regulatory and legal framework surrounding it.

The analysis of the spread of direct insurance policies and pension funds following the pension reforms from 2001 has shown that direct insurance policies and pension funds have been taken out continuously since 2001. In 2001, three times as many direct insurance policies were taken out as pension funds. Two years later, in 2003, more than twice as many pension funds were taken out as in 2001, while the development of direct insurance policies stagnated at the previous year's level. In 2005, the development of the entitlements of both insurances was at the same level. In 2007 and 2009, more pension funds than direct insurance policies were taken out. However, the turnaround came from 2011–2019 and the number of direct insurance policies taken out again exceeded that of pension funds. While the number of direct insurance policies remained at the same level in 2013, 2015 and 2017, pension funds recorded a slight decline from 2013 to 2015. In 2017, the number of pension funds rose again before falling again two years later. In 2019, half a million more direct insurance policies were taken out than pension funds. Over the entire period under review from 2001 to 2019, 45.6 million direct insurance policies were taken out, around 10 % more than pension funds at 41.1 million. In total, there were 86.7 million contracts. In the overall view of the development of both implementation channels, the number of contracts concluded from 2001–2013 has continuously developed positively. There was a marginal decline in 2015, but this was followed by a positive trend in the subsequent years 2017 and 2019.

This paper has shown that although a political paradigm shift in old-age provision policy has taken place with the 2001 pension reform, the current level of diffusion of occupational pension provision is not particularly satisfactory. Ultimately, state intervention in favour of personal provision cannot always be enforced with the desired ideas. At the selection of suitable (political) instruments, the aim at increasing the degree of diffusion, the long-term nature of the development of old-age provision the long-term nature of building old-age provision, the focus should be less on short-term effects and more on approaches that should be pursued.

As mentioned earlier in this paper, 69 % of employers cite lack of demand or no demand at all for occupational pension provision as the main reason. On the other hand, 47 % of employees in Germany aged 25 to under 65 without a company pension claim that there is no offer from the employer side.

9. Discussion, Recommendations and Limitations

On 11 March 2020, the outbreak of the respiratory disease COVID-19 was declared a global pandemic by the World Health Organisation. Since this outbreak, Germany has also been affected by the economic impact of the pandemic. In further research reports, an investigation of the impact of the pandemic on the demand behaviour for occupational pension provision would be recommended. An investigation would only be possible when the next old-age provision report for 2024 is available.

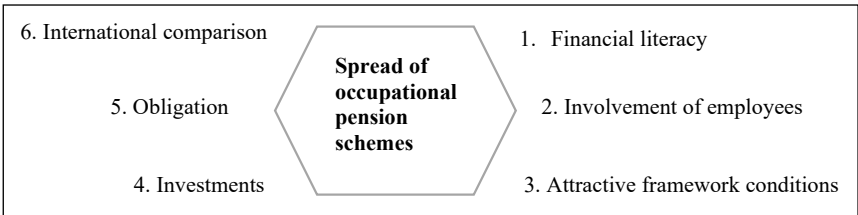
Since the data of the old-age security report of 2020 are only available until 2019, it would be advisable for further research to analyse the data of the subsequent old-age security report. The next report would have to be published in 2024. Unfortunately, at the current stage of this article (May, 2024), no specific information is available on the publication date of the old-age provision report for 2024, which is why the results could not be incorporated into this article. This report should then provide further data on the spread of occupational pension provision from 2020. This data analysis could contribute to a very interesting research paper for two reasons. The first reason is the introduction of the Occupational Pension Strengthening Act. As has already been shown in this paper, the entitlements in direct insurance and pension funds have developed only marginally at 2 %. The second reason is the aforementioned COVID-19 pandemic of March 2020. Researching these two issues is very interesting. Firstly, because there has not been a pandemic that has had such an impact on the economy since the reforms from 2001. Secondly, because it is interesting to explore how the spread of occupational pensions has developed after the pandemic.

In summary, it can be said that there is still a lot of room for improvement in the dissemination of occupational pension provision. Future reforms of old-age provision should also be somewhat oriented towards the concerns of employees and employers and try to make occupational pension provision interesting through simplification in addition to political instruments such as subsidies or tax relief. Many employers and employees refrain from occupational pension provision mainly because of ignorance and complexity, although every employee has a legal right to deferred compensation. One possible consideration would be to extend the statutory legal entitlement to deferred compensation through a mandatory occupational pension scheme. It would also be conceivable

ble for the legislator to simplify occupational pension provision in the sense that it would place the employer under a certain obligation to provide information. For example, that every medium-sized company has a personnel officer for occupational pension provision, who must also undergo further training on occupational pension provision topics at certain intervals in order to keep the workforce up to date. On the other hand, one could introduce obligatory annual information meetings between the HR representative and the respective employee. The proposed recommendations require further economic and legal research.

For further research on the degree of diffusion of occupational pension provision, surveys of employees and employers should be conducted according to socio-demographic characteristics in order to gain further in-depth knowledge from which recommendations for action can be derived. The field of German occupational pension provision is very diversified with its internal and external implementation channels. Future research in this area of pension provision should also focus on selected implementation channels, as in this paper.

The author recommends the following recommendations for action at political level to promote the spread of occupational pension schemes, which are presented in Figure 7.



Source: Own representation.

Fig. 7: Recommendations for action to spread occupational pension provision

The topic of financial literacy should be integrated into school curricula in order to raise awareness of the need for adequate pension provision at a young age. In the longer term, this awareness could lead to a higher take-up of occupational pension schemes. Employers should involve their employees more in the company pension scheme in order to recognise the needs of their employees more strongly. Furthermore, it is advisable to focus on the current legal framework of occupational pension provision and to put it to the test of a general modernisation. In particular, the issue of portability in the event of a change of employer should be reconsidered. In view of the current rise in interest rates, the modification of investments, which could generate higher returns, could lead to a greater spread of occupational pensions. It would be conceivable to review how, for example, shares, bonds, ETFs or property could be integrated into

the investment portfolio of insurers and pension funds. If you want to increase the penetration rate of occupational pension schemes in a shorter period of time, there is much to be said in favour of a mandatory company pension scheme which, in addition to deferred compensation and employer financing, provides for state subsidies for low earners. Employees with lower incomes in smaller companies could particularly benefit from this. In addition to the five recommendations for action mentioned so far, which can be implemented at national level, it is also advisable to take a look at the bigger picture in order to determine which occupational pension schemes in selected countries have a good penetration rate of occupational pension provision in an international context. The countries were selected according to the following criteria:

- Countries with consumer-friendly, forward-looking occupational pension schemes, i. e. with features that can be considered promising for a sustainable solution and avoid the shortcomings of the current German system.
- Countries in which occupational pension schemes play an important role.
- Countries in which occupational pension schemes are flexible, lean and efficient.

In this international context, I recommend a five-step analysis. The first step should focus on the occupational pension schemes in European countries. In the second step, the North American countries should be included. In the third step, analyse selected Asian countries such as Singapore, Hong Kong and Japan according to the criteria mentioned and in the fourth step, Australia. In the fifth step, all the countries analysed should then be subjected to an overall analysis in order to draw possible conclusions for the future design of the German occupational pension system. It is important that the factors of average life expectancy and the retirement age of the individual countries are taken into account in the international analysis. In steps 2 to 4, the order in which they are analysed is irrelevant.

From the author's point of view, political implementation of the recommendations for action presented in Figure 7 in the order in which they are presented would be the best way to increase the spread of occupational pension provision in Germany. If people are already taught about financial and pension products during their school education, this could create a level of self-interest that will lead them to deal with the topic of occupational pension provision later in their careers out of their own interest and approach their employer about it, thus automatically involving them in this topic. In addition, informing people at an early stage could lead to them knowing exactly under what conditions they would or would not take out a company pension scheme. The advantage for politicians is that suggestions for attractive framework conditions for the organisation of occupational pension schemes could be obtained from the knowledge of financially educated people. In addition to the attractive framework conditions,

the returns for employees should also be attractive. The opinions of many experts differ on the question of mandatory company pension schemes, which is why it is advisable to take a look at how they work and the framework conditions in an international context. Unfortunately, the problem lies in the fact that it may not be possible to implement the above recommendations for action in the order stated. People who are already in employment can no longer be educated on this topic at school and must acquire the knowledge themselves or be informed by their employer or counsellor. In addition, political decisions such as the creation of more attractive framework conditions, the modification of capital investments and a commitment to company pension schemes are not made immediately but will take time.

For the selection of suitable future (political) strategies aimed at increasing the prevalence of occupational pension provision in the coming years, the focus should be less on short-term effects and more on approaches that are sustainable in the long term. Of the six recommendations for action presented in figure seven, I therefore recommend that financial literacy in particular be included on the agenda for future debates. If people initially have a general financial education, the occupational pension system could benefit from this in the long term. As a further instrument, I recommend the discussion of a mandatory company pension scheme, in which a company pension scheme must be taken out immediately when new employment contracts are signed. However, employees should be given the option of rejecting the company pension scheme within a period of, for example, four weeks. In addition to the national reform considerations, I therefore recommend an international comparison of the countries in which company pension schemes are already mandatory in order to recognise possible advantages and disadvantages. Old-age provision policy should set itself more ambitious goals and have the confidence to enable active and robust decisions by citizens through the proposed recommendations for action. Once a critical mass is reached, the spread of occupational pension schemes can be expected to accelerate significantly.

The study in this article had its scientific limitations, which is why it was only possible to analyse part of the occupational pension scheme up to 2019. Due to the incomplete database, it was not possible to analyse the development of direct insurance and pension funds from 2020 onwards, for example, because at the time this article was written, the 2024 Pension Report of the Federal Ministry of Labour and Social Affairs was not yet available. Further research in this area should therefore follow in the future and be supplemented by the data from the forthcoming 2024 Old-Age Security Report. In addition, the old-age pension reports analysed in 2005, 2008, 2012 and 2016 provided data prior to the introduction of the OSPA. Only the 2020 old-age provision report provided data after the introduction of the OSPA, which is why no clear statement can be made about the spread of direct insurance and pension funds since the introduction of

the law due to data limitations. It is also important to analyse the reasons for not offering a company pension. Although employers have been obliged to offer their employees a company pension scheme since the introduction of the OSPA, according to the 2020 Pension Report, the most common reason given by employees was that employers do not offer a company pension scheme. It is interesting to see what has changed in this behaviour almost four years later. In view of the increasing importance of occupational pension schemes, there is an enormous information gap overall. The need for further research in the field of occupational pension provision could be met if these information and data gaps were to be closed, for example in the form of official statistics on occupational pension provision. For a conclusive assessment of the effects of the OSPA on the spread of occupational pensions requires further research. Empirical and behavioural economic research approaches are particularly suitable for this purpose.

10. Conclusion

In the context of this paper, the old-age security reports published since 2005 were thoroughly read and their data evaluated. A thorough analysis of the currently valid legal framework was also carried out. In particular, labour law, social security law, tax law, the Company Pension Strengthening Act, the Retirement Assets Act, the Retirement Income Act and the Statutory Health Insurance Modernisation Act were read and evaluated. After reading the literature, it was possible to define the occupational pension scheme and explain its legal basis with its special features. In addition to the old-age security reports and the necessary legal foundations, studies and books were read and evaluated that have been dealing with occupational pension provision for years. The old-age security reports of the Federal Ministry of Labour and Social Affairs, provided a very good source of data on the development of occupational pension provision. The reports also provide data on the development of statutory pension insurance and other forms of old-age provision. Unfortunately, at the time of writing this paper, the Old Age Security Report 2024 was not yet available. This could have provided further data on the spread of occupational pension schemes after the introduction of the OSPA, as well as explaining the reasons why employees do not have a company pension scheme.

References

Bundesministerium für Arbeit und Soziales (2005): Ergänzender Bericht der Bundesregierung zum Rentenversicherungsbericht 2005 gemäß § 154 Abs. 2 SGB VI (Alterssicherungsbericht 2005). (Date accessed: 1. October 2020). Available at: <https://www.bundesregierung.de/resource/blob/975918/762234/ba84c38c0a7beec7118d77f3cc8e23ed/2006-03-08-alterssicherungsbericht-2005-data.pdf?download=1>.

- Bundesministerium für Arbeit und Soziales* (2008): Ergänzender Bericht der Bundesregierung zum Rentenversicherungsbericht 2008 gemäß § 154 Abs. 2 SGB VI (Alterssicherungsbericht 2008). (Date accessed: 1. October 2020). Available at: <https://www.bmas.de/SharedDocs/Downloads/DE/Rente/rentenversicherungsbericht-2008-ergaenzender-bericht.html>.
- Bundesministerium für Arbeit und Soziales* (2012): Ergänzender Bericht der Bundesregierung zum Rentenversicherungsbericht 2012 gemäß § 154 Abs. 2 SGB VI (Alterssicherungsbericht 2012). (Date accessed: 3. October 2020). Available at: <https://www.bmas.de/SharedDocs/Downloads/DE/Gesetze/alterssicherungsbericht-2012.html>.
- Bundesministerium für Arbeit und Soziales* (2016): Ergänzender Bericht der Bundesregierung zum Rentenversicherungsbericht 2016 gemäß § 154 Abs. 2 SGB VI (Alterssicherungsbericht 2016). (Date accessed: 5. October 2020). Available at: http://portal-sozialpolitik.de/uploads/sopo/pdf/2016/2016-10-31_BMAS_Alterssicherungsbericht_2016.pdf.
- Bundesministerium für Arbeit und Soziales* (2019): Forschungsbericht 565, Verbreitung der Altersvorsorge 2019 (AV 2019), Abschlussbericht. Available at: https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/Forschungsberichte/fb-565.pdf?__blob=publicationFile&v=1.
- Bundesministerium für Arbeit und Soziales* (2020): Ergänzender Bericht der Bundesregierung zum Rentenversicherungsbericht 2020 gemäß § 154 Abs. 2 SGB VI (Alterssicherungsbericht 2020). (Date accessed: 5. October 2020). Available at: http://www.sozialpolitik-aktuell.de/files/sozialpolitik-aktuell/_Politikfelder/Alter-Rente/Dokumente/2020_11_BuReg_Alterssicherungsbericht%202020.pdf.
- Bundesgesetzblatt*, 2017 Teil I Nr. 58. Gesetz zur Stärkung der betrieblichen Altersversorgung und zur Änderung anderer Gesetze (Betriebsrentenstärkungsgesetz). (Date accessed: 5. May 2022). Available at: https://www.bundesfinanzministerium.de/Content/DE/Downloads/Gesetze/2017-08-23-Betriebsrentenstaerkungsgesetz.pdf?__blob=publicationFile&v=3.
- Bundesministerium für Justiz* (ed.) (2022a): Gesetze-im-internet.de. (Date accessed: 9. February 2022). Available at: https://www.gesetze-im-internet.de/estg/_4.html.
- Bundesministerium für Justiz* (ed.) (2022b): Gesetze-im-internet.de. (Date accessed: 12. February 2022). Available at: https://www.gesetze-im-internet.de/sgb_5/index.html.
- Bußler, A./Sobau, M.* (2019): Das BRSG im Mittelstand. Der Praxisleitfaden für bAV-Entscheider. Wiesbaden: Springer Gabler.
- Caliendo, M./Hogenacker, J.* (2012): The German labor market after the Great Resecction: successful reforms and future challenges, *Journal of European Labor Studies*, 2012, (1:3), 1 – 24. (Date accessed: 26. April 2021). Available at: <http://ftp.iza.org/dp6810.pdf>.
- Deutsche Rentenversicherung* (2014): Das Rentenpaket: Fragen und Antworten. 2nd ed. (06/2014). (Date accessed: 26. April 2021). Available at: https://www.deutsche-rentenversicherung.de/SharedDocs/Downloads/DE/Broschueren/national/rentenpaket_fragen_und_antworten.html.
- Deutsche Rentenversicherung* (2023): Betriebliche Altersvorsorge. (D. Rentenversicherung, 17. ed.) (01/2023). Berlin, Deutschland. (Date accessed: 18. April 2023). Availa-

ble at: https://www.deutsche-rentenversicherung.de/SharedDocs/Downloads/DE/Broschueren/national/betriebliche_altersversorgung.html.

Hofelich, A./Rein, M. (2018): The act to strengthen company pensions is coming – with implications for all employers, Berlin: Your world first, January 2018/05, Employment law – in brief..., CMS Hasche Sigle Employment & Pensions Practice Area Group. (Date accessed: 17. October 2023) Available at: <https://cms.law/en/media/local/cms-hs/files/publications/newsletters/employment-law-in-brief-january-2018?v=2>.

Drochner, S./Uebelhack, B. (2013): Die Betriebsrente: Textsammlung 2013, 12th ed., Berlin: Arbeitsgemeinschaft für betriebliche Altersversorgung e.V.

German Council of Economic Experts – Annual Report 2016/17. Pension Provision: Strengthen the three pillar model. (Date accessed: 30. April 2021). Available at: https://www.sachverstaendigenrat-wirtschaft.de/fileadmin/dateiablage/gutachten/jg201617/chapter_seven__2_.pdf.

Hannappel, S./Arentz, O. (2017): Die betriebliche Altersversorgung bei kleinen und mittelständischen Unternehmen vor dem Hintergrund der aktuellen Reformen, Otto-Wolff-Discussion Paper, No. 04/2017, Köln: Otto Wolff Institut für Wirtschaftsordnung. (Date accessed: 2. April 2023). Available at: https://www.econstor.eu/bitstream/10419/201595/1/OWIWO_DP_2017_04.pdf.

Kieswetter, D./Grom, M./Menzel, M./Tschinkl, D. (2016): Optimierungsmöglichkeiten bei den bestehenden steuer- und sozialversicherungsrechtlichen Förderregelungen der betrieblichen Altersversorgung, Würzburg: Würzburg University Press.

Leiber, S. (2005): Formen und Verbreitung der betrieblichen Altersvorsorge – Eine Zwischenbilanz. Düsseldorf: Wirtschafts- und Sozialwissenschaftliches Institut. (Date accessed: 1. February 2021). Available at: https://www.boeckler.de/data/wsimit_2005_06_leiber.pdf.

Menzel, M. (2019): Das Betriebsrentenstärkungsgesetz und seine Auswirkungen auf Geringverdiener: Eine modelltheoretische Analyse, Würzburg: Julius-Maximilians-Universität Würzburg. (Date accessed: 3. January 2023). Available at: <https://www.econstor.eu/bitstream/10419/226625/1/1735409634.pdf>.

Pimpertz, J./Stettes, O. (2018): Neue Impulse für die betriebliche Altersvorsorge? Status-quo-Messung zur Einführung des Betriebsrentenstärkungsgesetzes, IW-Trends – Vierteljahresschrift zur empirischen Wirtschaftsforschung, 45(3), 3–19. Available at: <http://dx.doi.org/10.2373/1864-810X.18-03-1>.

Schwarz, R. (2018): Praxisleitfaden betriebliche Altersvorsorge, 3rd ed., Berlin: Springer Gabler.