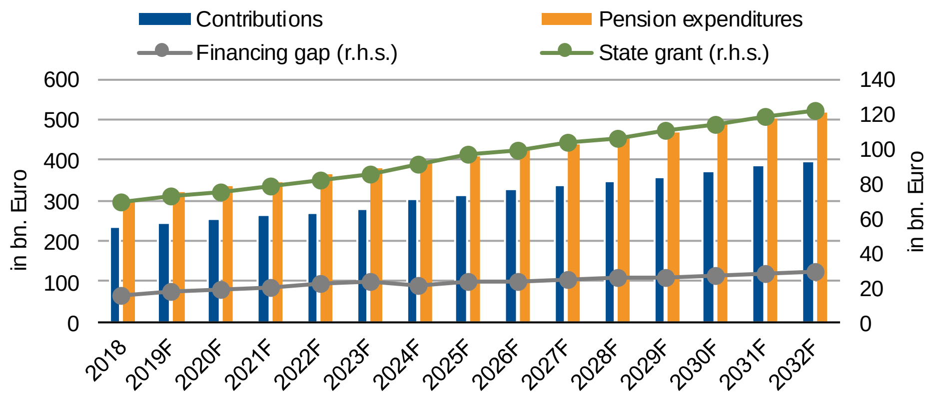
Scope Policy Insights: A State Pension Fund for Germany

The reform of the public pension system dominates Germany's political agenda. One idea that has not received broad attention in the current debate is the introduction of a public pension fund, which Scope believes could underpin Germany's AAA long-term sovereign ratings.

Germany (AAA/Stable Outlook) is facing a large gap between contributors and beneficiaries of pensions as the Baby Boomer generation retires and is replaced by a diminishing number of young working-age people. In 2018, the government constituted a commission for a "reliable inter-generational contract" to prepare proposals for the financing of public pensions after 2025. Recent projections show that the gap between recipients' demands and contributions – partially met via a state grant – could widen over the next 20 years owing to higher life expectancies among incoming retirees (**Figure 1**).

Figure 1: Projected pension system contributions and expenditures, 2018-2032



Source: Rentenversicherungsbericht 2018, Scope Ratings GmbH

The introduction of a state pension fund could serve as compensation for younger generations to balance past legislation, which tends to favour near-term pensioners with the mother's rent as well as a proposed higher basic pension for low-income groups. Though a state pension fund is not designed to finance today's pension needs, it could help to satisfy younger generations' future claims, with current fears these generations will come away empty-handed at the same time as being obliged to finance their parents' and grandparents' pensions. The idea of a state pension fund was recently supported by Clemens Fuest, President of the ifo Institute, a leading German economic think-tank.

Scope identifies three positive rating drivers from the implementation of a public pension fund, which could further anchor Germany's AAA sovereign credit ratings:

1. Lower future government liabilities than the pay-as-you-go system;
2. Lower uncertainty for younger generations about future pension levels, potentially reducing savings from these groups and raising spending;
3. Higher supply and liquidity for German government bonds, supporting Germany's benchmark issuer status.

Analyst

Dr Bernhard Bartels
+49 69 6677389 19
b.bartels@scoperatings.com

Team Leader

Dr Giacomo Barisone
+49 69 6677389 22
g.barisone@scoperatings.com

Media

André Fischer
+49 30 27891 147
a.fischer@scopegroup.com

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Scope Ratings GmbH

Neue Mainzer Straße 66-68
D-60311 Frankfurt am Main

Phone +49 69 66 77 389 0

Headquarters

Lennéstraße 5
10785 Berlin

Phone +49 30 27891 0
Fax +49 30 27891 100

info@scoperatings.com
www.scoperatings.com

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Limitations of the pay-as-you-go system

Pay-as-you-go requires increasing tax grant

Current government projections show that the state grant to the pension system is set to increase in the direction of EUR 120bn by 2032 (see **Figure 1**). If the government were to fill the financing gap and other requirements of the system entirely via higher taxes, this would translate into additional fiscal needs of around 4% of GDP p.a. by 2032[1]. As of now, the projections of the pension report assume a combination of higher contributions, lower pension expenditures and increased tax co-payments. The ceilings set on contributions and pension levels expire in 2022.

Unequal treatment of occupational groups

Germany's pay-as-you-go system not only faces the challenges of an ageing society but also unequal treatment of occupational groups. Employees today and their employers contribute 18.6% of gross salaries in equal shares to the pension system. In addition, the federal government supports the pension system with annual tax payments (Bundeszuschuss) by co-financing non-contribution-related entitlements such as mother's rents or low-income pension subsidies. Given that several occupational groups (doctors, lawyers, self-employed, civil servants) are entitled to have their own capital-based systems, they only participate in the system through tax payments. Conversely, compulsory contributors to the pay-as-you-go scheme face higher contributions and lower future entitlements, which will reduce their returns from the pension system. Concurrently, the financing of additional social transfers through the pension system undermines transparency and accountability for both contributors and transfer recipients, especially across generations.

How Germany could benefit from a public pension fund

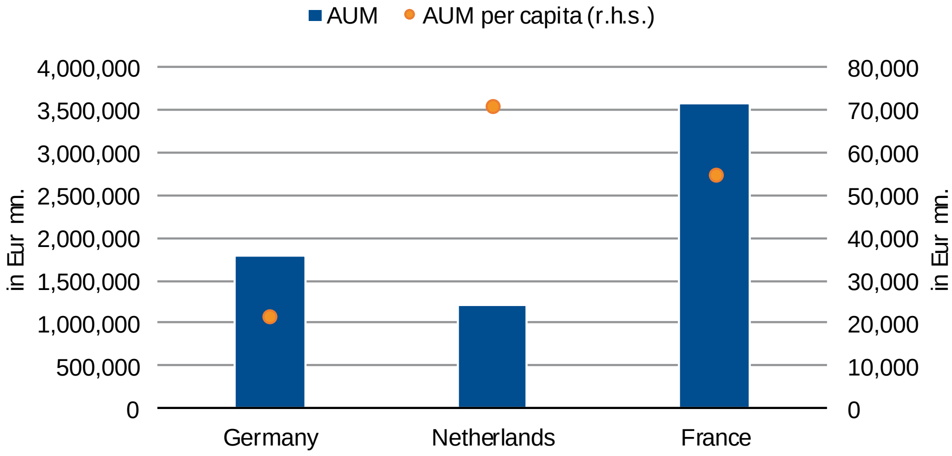
While advocates of free-market solutions may argue that mutual or private pension funds are usually better able to manage contributions, a state pension fund could provide several advantages over private solutions.

Existing pension fund schemes only for special occupational groups

Germany, like other advanced economies with pay-as-you-go pension systems, has a relatively small share of capital-based savings (see **Figure 2**). Private pension funds are primarily based on occupational pension schemes dominated by pension funds for special occupational groups and major stock-holding companies such as Daimler AG, Lufthansa AG or Siemens AG. In general, the financial literacy gap between financial institutions (banks, insurers, asset management companies) and households is substantial, especially in Germany where most households are not used to finance products apart from protected savings bonds provided by their local banks. Thus, private households have not traditionally been involved in the financial planning aspects of their retirements, with a combination of government and/or company-based schemes doing the job for them.

[1] The underlying assumptions for the projections are based on wage increases of 3% p.a., current demographic projections and net annual immigration of 200,000 potential workers.

Figure 2: Assets under management (AUM) among top four asset managers, by country



Sources: IPE magazine, Asset manager tables 2018, Scope Ratings GmbH

Lack of financial management experience among private households

Financial literacy levels across countries often depend on the generosity of the social security system and the level of financial education. Literacy surveys find mixed results for Germany, with average scores compared to other OECD countries but below-average outcomes for lower-educated households, especially those who feel ill-prepared to manage their finances. Though it is difficult to identify causality, the combination of an assistance-providing welfare state and the lack of financial education are likely to be mutually enforcing factors.

Yet, the lack of financial know-how needed to select an optimal portfolio allocation over a 40-year employment period is not just a typical German issue. In general, households that are supposed to organise their own future pensions face a range of alternatives with varying administrative cost structures, which need a degree of expertise that many are ill-equipped to assess appropriately. Financially constrained households could be especially exposed under emotional stress, thereby increasing the probability of poor decisions. This observation has led many governments, especially in Scandinavia, to organise pension funding under public authority and supervision but under private management.

Mixed experience with the “Riester-Rente”

In 2002, Germany introduced a privately-organised system by combining capital-based contributions with government subsidies for pre-defined pension plans (“Riester-Rente”) as an additional pillar of the pension system[2]. Consequently, many households were required to select a privately-funded pension product. Marked capital losses on many products during the Global Financial Crisis revealed insufficient information provided by the financial sector to these retail customers. In addition, customers were often poorly informed about credit risk and had to pay high acquisition fees, leading to low net returns – in addition to the higher risk of capital loss. By comparison, a public pension fund could help low-income households with limited financial expertise or low interest in financial products to invest in a diversified asset portfolio with low management costs and no spiff payments (bonuses for policy-sellers).

Economies of scale

Given its size, a public pension fund could exploit economies of scale. Like sovereign wealth funds, a large pension fund has lower management costs relative to assets under management, allows for a more efficient allocation of funds to internal and external

[2] A more detailed analysis of the Riester-Rente is provided by Börsch-Supan et al., 2016: https://www.sachverstaendigenrat-wirtschaft.de/fileadmin/dateiablage/gutachten/jg201617/arbeitspapiere/arbeitspapier_12_2016.pdf

management processes, and enables the fund to influence corporate decision-making via the boards.

Prohibition of early withdrawals

By prohibiting early withdrawals, the state pension fund enables managers to invest with a long-term focus, allowing for more risk-taking and thus higher returns. One conceivable option is to restrict access for a fixed time period of 20 years after initial contribution (see scenario in the appendix). Conversely, privately-organised pension funds are obliged to retain a high share of assets in fixed-income and hold sizable shares in cash to maintain a fixed level of liquidity to satisfy pay-out needs.

Benefit for benchmark issuer

In contrast to the structure of sovereign wealth funds, which usually make limited use of leverage, the German model could benefit from the higher leverage of the government to exploit the country's high creditworthiness and liquidity in bond markets. Maintaining its status as a benchmark issuer across classes of bond issuance has been one of the ongoing tasks of the German debt management agency, given the recently low issuance of public debt due to fiscal consolidation and fiscal surpluses. Additional funding for a pension fund could support Germany's benchmark issuer status without risking its high credit rating if the additional funding is backed by the pension fund's assets.

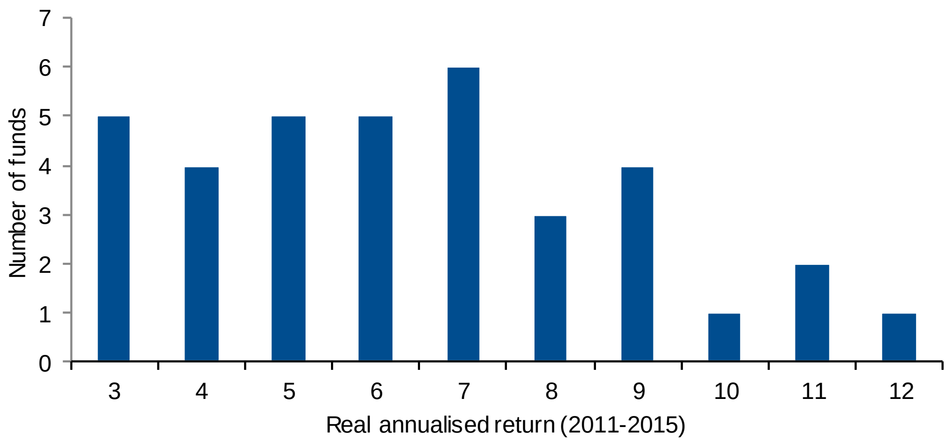
Pension fund as a counter-cyclical buffer

In today's globalised world, it is not only governments of resource-rich economies that are vulnerable to demand and supply shocks, but open economies such as Germany as well. This leads to a higher exposure of public budgets to volatility than in the past. During the Global Financial Crisis, Germany experienced a widely unexpected output shock of -4% of GDP in 2009, the highest annual loss in output since 1945. A public pension fund with an internationally-diversified portfolio could contribute to reducing the pro-cyclical impact of recessions on households' future income levels and thereby help to smooth the impact of shocks on the economy. Conversely, occupational pension schemes could expose the worker to higher correlation risk of lower wages or unemployment and depreciation of the pension assets. The public pension system also depends strongly on domestic economic performance, with contributions relying on the workforce and salary sizes.

High real returns of state funds across OECD countries

The final benefit of a public pension fund compared to the current system is its expected return. While the pay-as-you-go model has a return of 3% for current pensioners, the current system is unlikely to keep its profitability over the medium-term in view of increasing contributions (above 20% of incomes), a higher retirement age and lower pension levels (in the direction of 40% of pre-retirement incomes). Conversely, a sample of 36 public pension funds in the OECD has shown average real returns of above 4% p.a. even in the aftermath of the Global Financial Crisis (see **Figure 3**).

Figure 3: Average performance of 36 public pension funds in OECD countries



Source: OECD (2018), Survey of Large Pension Funds and Public Pension Reserve Funds, 2016

Instrument to promote sustainable finance

Public pension funds in developed countries usually operate under the supervision of parliaments and ministries of finance. While the funds' investment decisions are taken independently, the supervisors set benchmarks for the distribution of funds across asset classes and provide guidelines for investment to comply with sound market practices and internationally-agreed standards (i.e. climate change, children's rights, good governance). Like existing pension and sovereign wealth funds, the role of the government and/or parliament is restricted to the setting of benchmarks, while the investment decisions within the provided framework are taken by the fund managers in order to avoid government-directed investment to specific industries or companies.

Thereby, public pension funds can act as leaders for sustainable finance and serve to translate political definitions of sustainable activity directly into financial decision-making. The German government recently decided to establish Germany as a central location for sustainable finance, which could help to reach the Sustainable Development Goals. Given the proposition that the fund has a long-term investment focus, the decision to invest in sustainable activities will stabilise revenues in the long-term and fulfil standards of responsible investment at the same time.

How can the funding be organised?

Deutsche Finanzagentur could manage fund

In 2000, the German government installed the German Debt Management Office (Deutsche Finanzagentur GmbH), a fully government-owned and controlled entity under supervision of the finance ministry but operating under private corporate law. This institutional framework allows the debt agency to operate more independently while safeguarding the government's full control over its activities. For instance, the agency maintains its own trading capability to intervene actively in secondary markets to preserve the liquidity of its bonds and benchmark-issuer status across maturities.

The formal framework of the debt management agency could also be applied to the pension fund. The Norwegian state fund is managed under the central bank, which has delegated the responsibility for operational management to Norges Bank Investment Management. A similar scheme is conceivable for a German Pension Fund, whereby a close link to the debt management office could help to ensure effective co-ordination between funding and investment while at the same time being run under private management with public control.

A state pension fund could be designed by establishing a government agency comparable to the model of sovereign wealth funds, which are managed outside of government. While the Norwegian sovereign wealth fund is managed by the central bank, it could be more feasible for Germany to organise management within the German debt management office, given its active trading in secondary markets.

Funding of German pension fund via three sources

In principle, the funding of the German pension fund could occur via three sources:

- Private savings: the fund offers an opportunity for private households to invest their savings in a publicly-owned fund;
- Private pension contributions: employees can choose between private fund alternatives and the state fund;
- Deficit-financing: as the German government benefits from high liquidity and safe-haven status, part of the financing could be created by additional funding, which on the one hand secures or improves Germany's status as a benchmark issuer, thereby creating better liquidity for German bonds. Also, its high credit rating and declining debt levels allow Germany to issue long-term bonds at negative interest rates. Thereby, the government could cheaply co-finance the fund and help to increase its capital stock quickly.

- The structure of the fund would also allow additional private contributions to increase individual pension levels. In addition, citizens could freely choose between lump-sum, one-off pensions and monthly payments. Thereby, the fund combines a beneficial public scheme with individual freedom on the size of optimal future pension levels with a guaranteed minimum. Scope's scenario in the appendix implies that the lump-sum pay-out to citizens after 20 years could be doubled in size if participants contribute EUR 100 per month over 20 years.

Rating implications of debt-financed funding

Credit implications conditional on institutional setup

The trajectory and size of public debt is a major determinant of Scope's sovereign risk assessment; the latter including a thorough debt-sustainability analysis. The government's assets are a less prominent but still relevant factor of Scope's qualitative credit analysis. If Germany were to finance a part of the pension fund with additional debt, the implications on its credit rating would have to be reviewed. It is Scope's view that Germany's ratings could benefit from a debt-financed state fund even if this results in a higher public debt ratio. The institutional set-up requires three major conditions to be met simultaneously:

1. A public mandate, which prohibits early withdrawals;
2. Transparent criteria for future pay-outs to pensioners;
3. Private management under public supervision.
4. Debt issuance covered by tax contributions of equal size

These criteria would have to be met and require additional, more detailed information from other OECD countries' frameworks, which could help to establish the fund in a way to prevent future misuse of the managed assets.

Given the prohibition of early withdrawals combined with the coverage of debt by taxes of equal size, the government's liabilities would be covered by 1.8 times the accumulated debt by 2050 (see appendix). Thereby, the government could ensure its creditworthiness even in the unlikely situation of a major capital loss.

Appendix: Scenario analysis for the fund's framework

Annual contributions amount to 1% of GDP

Scope conducted a scenario analysis for a German state fund, which is financed entirely by taxes and public debt. This proposal builds on a previous analysis conducted by Frankfurt based Goethe University[3].

The funding starts in 2019 and shows pay-outs to pensioners from 2039 onwards. Given that the government currently spends around EUR 30bn to subsidise the pay-as-go system, a similar amount could be used to fill the state fund. The scenario analysis uses EUR 17bn from taxes and another EUR 17bn from the issuance of new debt (equal to 0.5% of GDP each). In total, the German government would thus invest 1% of GDP p.a. into the fund, which is expected to grow in line with the economy (assumed to be 1% p.a.).

The scenario shows that total debt (in real terms) reaches EUR 750bn in 2050 (23% of GDP), while the capital stock (after withdrawals) amounts to EUR 1.36trn and thus covers more than 180% of the outstanding debt. Total annual pay-outs fluctuate between EUR 28bn and EUR 33bn to ensure a stable and even increasing capital stock. All figures assume an inflation rate equal to zero.

No withdrawals from the fund before 2039

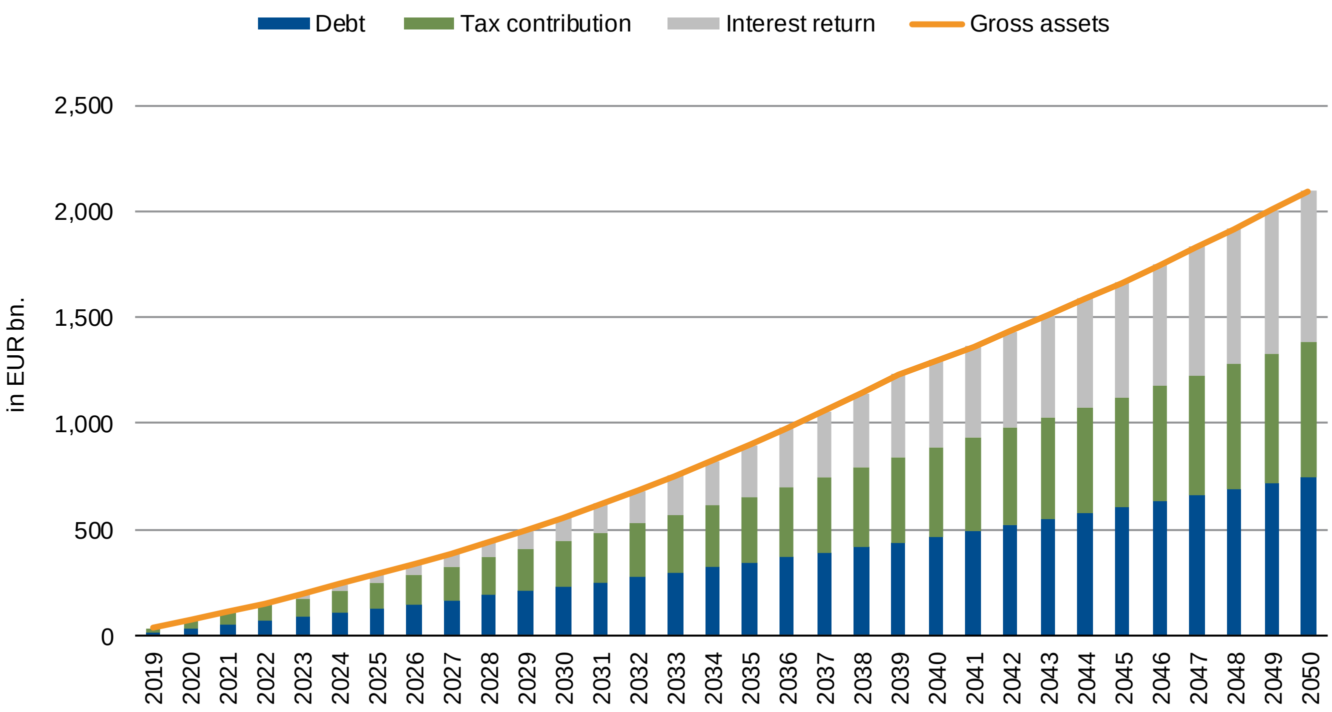
More importantly, the fund does not pay out contributions before 2039 (after 20 years of existence) to allow the build-up of net assets. Also, each issued euro is supposed to be matched with another euro of taxes to ensure that new debt is fully covered by equity. The net returns of the fund's investments are expected to average 4% p.a. on average, given that the 20-year build-up period allows for a high share of equity investment.

Expected payments of EUR 30,000-40,000 per citizen

This simple structure for the fund ensures equal eligibility for future pensioners with an employment history of 20 years between 2019 and 2039. The mixed funding structure with taxes and public debt issuance ensures that all citizens are equally eligible for the fund's returns. However, citizens who withdraw after the minimum holding period of 20 years and withdrawals during crises lead to lower pensions. Since no funds can be drawn before 2039, pensioners who turn 67 in 2039 are eligible for individual allocations of between EUR 30,000-40,000. From 2039 onwards, between 840,000 and 960,000 new beneficiaries are expected every year up to 2050. The chosen scenario shows that the fund's capital keeps growing during the allocation period, even if the real net return is lower (assuming either lower performance of investments or higher refinancing costs of debt). Adverse scenarios assuming a very narrow interest margin between investment and liabilities primarily affect allocations.

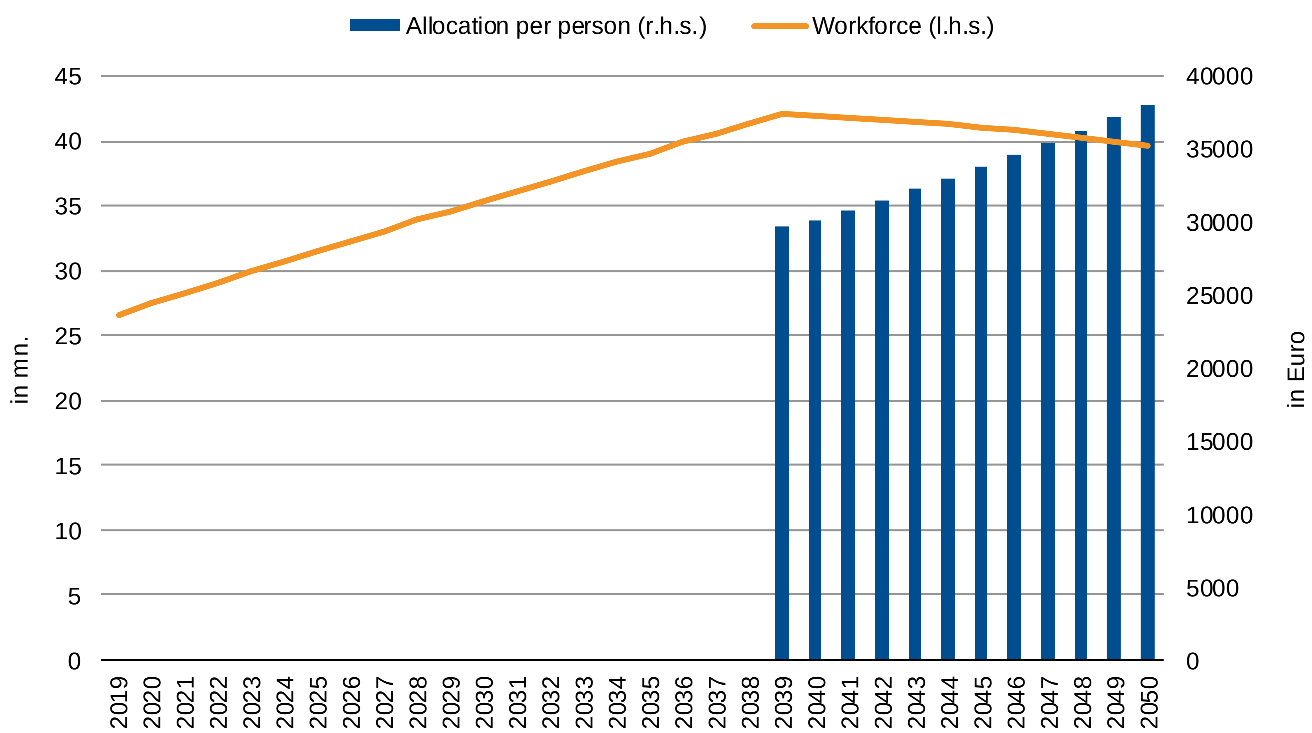
[3] See Volker Brühl: https://archiv.wirtschaftsdienst.eu/jahr/2019/1/plaedoyer-fuer-einen-rentenfonds-deutschland/ (October 2018)

Figure 4: Projections for the German State Fund



Source: Demographic statistics of the German Federal Statistical Office, Scope Ratings calculations

Figure 5: Fund allocation to citizens



Source: Demographic statistics of the German Federal Statistical Office, Scope Ratings calculations

Table 1: Accumulation of assets and debt

Year	New debt	Tax contribution	Accumulated taxes	Gross assets	Debt	Accumulated returns	Net assets
2019	17.00	17.00	17.00	34.00	17.17	0.00	16.83
2020	17.17	17.17	34.17	71.07	34.68	2.22	36.39
2021	17.34	17.34	51.51	109.99	52.55	5.93	57.44
2022	17.52	17.52	69.03	150.82	70.76	11.03	80.06
2023	17.69	17.69	86.72	193.65	89.34	17.59	104.31
2024	17.87	17.87	104.58	238.56	108.28	25.70	130.28
2025	18.05	18.05	122.63	285.63	127.58	35.42	158.05
2026	18.23	18.23	140.86	334.97	147.27	46.85	187.70
2027	18.41	18.41	159.26	386.66	167.33	60.06	219.32
2028	18.59	18.59	177.86	440.80	187.79	75.15	253.01
2029	18.78	18.78	196.64	497.49	208.63	92.22	288.86
2030	18.97	18.97	215.60	556.84	229.87	111.36	326.97
2031	19.16	19.16	234.76	618.96	251.52	132.68	367.44
2032	19.35	19.35	254.11	683.96	273.57	156.28	410.38
2033	19.54	19.54	273.65	751.96	296.05	182.27	455.91
2034	19.74	19.74	293.38	823.09	318.94	210.77	504.15
2035	19.93	19.93	313.32	897.48	342.26	241.90	555.21
2036	20.13	20.13	333.45	975.25	366.02	275.78	609.23
2037	20.33	20.33	353.79	1,056.56	390.22	312.56	666.34
2038	20.54	20.54	374.32	1,141.54	414.86	352.35	726.68
2039	20.74	20.74	395.07	1,230.35	439.96	395.32	790.38
2040	20.95	20.95	416.02	1,294.34	465.52	412.80	828.82
2041	21.16	21.16	437.18	1,363.14	491.55	434.41	871.59
2042	21.37	21.37	458.55	1,434.76	518.05	458.16	916.71
2043	21.59	21.59	480.13	1,509.40	545.03	484.23	964.37
2044	21.80	21.80	501.94	1,586.01	572.50	511.57	1,013.50
2045	22.02	22.02	523.96	1,664.79	600.47	540.37	1,064.33
2046	22.24	22.24	546.19	1,746.16	628.93	571.03	1,117.22
2047	22.46	22.46	568.66	1,830.03	657.91	603.46	1,172.12
2048	22.69	22.69	591.34	1,915.25	687.40	636.50	1,227.84
2049	22.91	22.91	614.26	2,003.54	717.42	671.87	1,286.12
2050	23.14	23.14	637.40	2,094.52	747.97	709.15	1,346.55

Source: Scope Ratings

Table 2: Eligible recipients and allocations (assuming zero inflation)

Year	Eligible recipients	Workforce (in mn.)	Allocation per person (EUR)	Total expenditure (in EUR bn.)
2039	932,000.00	42.10	29,713.71	27.69
2040	861,000.00	41.90	30,138.74	25.95
2041	854,000.00	41.80	30,798.15	26.30
2042	844,000.00	41.70	31,502.12	26.59
2043	868,000.00	41.50	32,253.08	28.00
2044	887,000.00	41.30	33,013.18	29.28
2045	896,000.00	41.10	33,788.15	30.27
2046	909,000.00	40.90	34,589.01	31.44
2047	955,000.00	40.60	35,411.40	33.82
2048	955,000.00	40.30	36,219.56	34.59
2049	965,000.00	40.00	37,171.19	35.87
2050	946,000.00	39.70	38,038.08	35.98

Source: Scope Ratings GmbH

Scope Ratings GmbH

Headquarters Berlin
Lennéstraße 5
D-10785 Berlin

Phone +49 30 27891 0

Frankfurt am Main
Neue Mainzer Straße 66-68
D-60311 Frankfurt am Main

Phone +49 69 66 77 389 0

Paris
1 Cour du Havre
F-75008 Paris

Phone +33 1 8288 5557

London
Suite 301
2 Angel Square
London EC1V 1NY

Phone +44 20 3457 0444

Madrid
Paseo de la Castellana 95
Edificio Torre Europa
E-28046 Madrid

Phone +34 914 186 973

Milan
Via Paleocapa 7
IT-20121 Milan

Phone +39 02 30315 814

Oslo
Haakon VII's gate 6
N-0161 Oslo

Phone +47 21 62 31 42

info@scoperatings.com
www.scoperatings.com

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