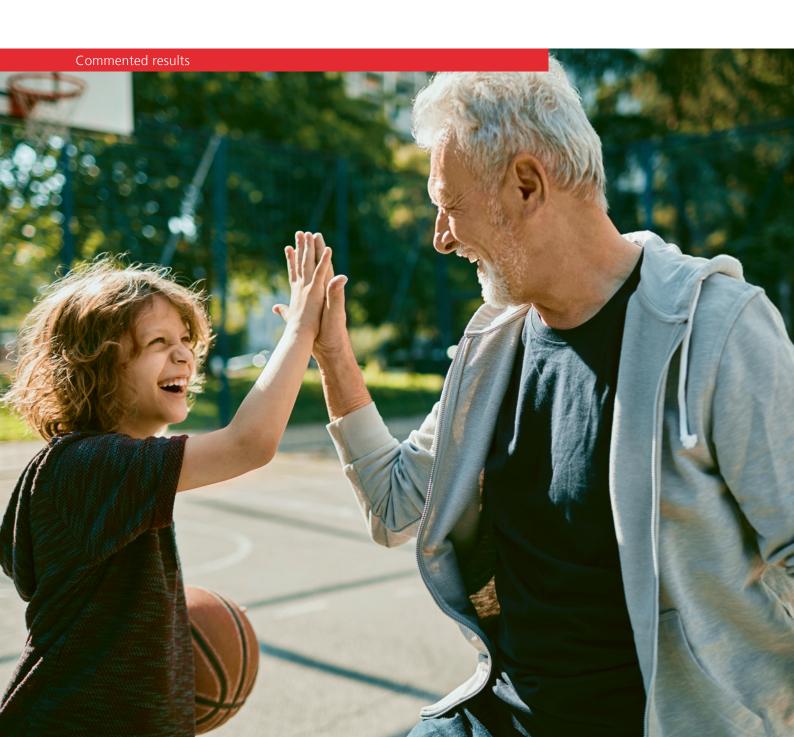


# Swiss Pension Fund Study 2021



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### **Editorial**



The trend towards sustainable investing has really taken off in recent years. As professional investors, pension funds have long assumed their responsibility in this regard. As Zürcher Kantonalbank, we are also aware of the key role of the financial sector in efforts to achieve sustainable development worldwide. Our study shows that more than 50 per cent of large pension funds have introduced ESG criteria to their investment regulations or will do so in the next three years. Another 25 per cent of funds are discussing whether or not to introduce them. New regulations at national and international level will provide extra transparency and comparability and thus further promote sustainable investments.

Climate risks are investment risks. In the transformation towards a climate-friendly economy, no one will be able to afford  $CO_2$ -intensive portfolios in the future. However, it must not be forgotten that responsible investing means more than just taking care of our natural resources, but also of the economy and society. Pension funds play an indispensable role in our society in particular – even for the younger generation, which is especially close to my heart.

The difficult market environment, demographics and the reform backlog are putting a strain on the occupational pension system. Returns have been the largest contributor to the 2nd pillar for some years. They significantly maintain the level of benefits and reduce the subsidisation of active pensioners by the younger generations. However, we still see potential here. Year after year, we see large differences of sometimes 15 percentage points or more in the performances of pension funds. Sustainable investment also includes the responsibility to achieve an optimum return for the beneficiaries.

I hope you enjoy reading the study and find the information contained in it to be useful.

Martin Scholl
CEO Zürcher Kantonalbank

## At a glance

# Less redistribution

The technical parameters and the interest rate on retirement assets are mostly moving in favour of active employees.

# **Enormous** differences

The best fund has a return three times higher than average. The differences were again large (from -6.5 to 12.3%).



# Opportunity for higher interest rates

for active employees: 69% of the pension funds achieve target fluctuation reserves of at least 75%.



56%

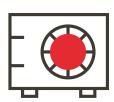
of the larger pension funds apply ESG criteria or will implement them within three years. Smaller pension funds have some catching up to do and only 4% of all pension funds have introduced a CO<sub>2</sub> reduction target.

**109.2**%

Public-sector employers with full capitalisation **87.7**%

Public-sector employers with partial capitalisation 116.1%

Private-sector employers



Financial security: Coverage ratio of pension funds at 10-year high. 65 years

Reference age for women in over 60% of public-sector pension funds.

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# Expansion of reserves opens up opportunities to reduce redistribution

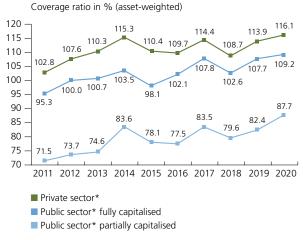


Heini Dändliker
Head of Key Account
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In 2020, the financial markets recovered quickly after the coronavirus shock in the spring and ensured a good performance overall for pension funds. Pension funds were able to improve their financial stability and increase reserves. This creates scope to pay higher interest on the pension assets of active employees – and therefore reduce redistribution in favour of pensioners.

The coverage ratios of Swiss pension funds developed favourably in 2020. Despite the pandemicrelated stock market slump in the first quarter, most funds stuck to their investment strategy and so achieved a good annual result. Thanks to this solid performance, private-sector pension funds improved their coverage ratios by an average of 2.2 percentage points. Public-sector funds with full capitalisation increased their coverage ratios by 1.5 percentage points, and public-sector pension funds with partial capitalisation by as much as around 5 percentage points. The significant increase in the latter was due in particular to selective measures taken by individual funds to improve their capital base. As a result of the continued recovery in 2020, asset-weighted coverage ratios are now at their highest levels in the last ten years in all three categories.

Figure 1: Change in coverage ratio 2011 to 2020



Legal form of pension scheme until 2013, sponsor of the pension scheme from 2014

#### Strong expansion of fluctuation reserves

Due to the good investment results and the resulting increase in coverage ratios, more resources became available to the funds. Numerous institutions took advantage of this and increased their fluctuation reserves, in some cases substantially. Therefore, 69 per cent of all funds have already achieved their defined fluctuation reserves by at least 75 per cent. In the previous year, only 63 per cent of the funds had reached this level. The increase of funds run by public employers from 29 per cent to 40 per cent is particularly striking. In the meantime, an increasing number of funds of public employers have a coverage ratio of more than 100 per cent, which is what makes the formation of fluctuation reserves possible in the first place. Overall, the funds are well prepared for possible market fluctuations in the future thanks to their reserves.

#### Technical interest rate continues to fall

The downward trend in discount rates for pension capital and technical reserves continued in 2020. 72 per cent of all Swiss pension funds used a technical interest rate of less than 2 per cent for their calculations. On average, this rate was 1.59 per cent for private-sector funds and 1.86 per cent for public-sector funds. This shows that discount rates of less than 2 per cent, which were unimaginable just a few years ago, have become a reality across the board.

This is a logical development. Against the backdrop of further increases in life expectancy and the persistently low interest rate environment, securing pensions remains the greatest challenge for pension funds. This development shows that the pension funds are doing their homework.

Conversion rates have also fallen further in line with the decline in valuation interest rates. For example, the average conversion rate in 2020 at the time of statutory retirement was 5.57 per cent for women and 5.63 per cent for men. For the current year, the pension funds surveyed expect a further reduction. The estimate of the average conversion rate is 5.46 per cent for women and 5.52 per cent for men.

Conversion rates are therefore already well below 6 per cent for the most part today, and thus below the target value envisaged by the Federal Council as the minimum conversion rate for the current BVG revision. This shows how overdue the adjustments to the legal framework are. However, it also shows that the reduction currently being discussed is unlikely to be the last. Looking to the future, most pension funds expect further reductions in the con-

version rate due to increasing life expectancy, low interest rates and limited technical parameters.

Figure 2: Decrease in redistribution due to losses from excessive conversion rates



#### **Redistribution decreases**

The solid investment performance again allowed the funds to produce an average interest rate of more than 2 per cent on the assets of active insured members in 2020. At 2.03 per cent, however, it was significantly lower than in the very strong investment year of 2019, when the interest return was 2.64 per cent. However, it was again clearly higher than the return on pensioners' capital.

The range between the individual funds was considerable. While the schemes of private employers attributed an average of 2.17 per cent, the rate for collective and common pension schemes of public employers was only 1.48 per cent. Not surprisingly, pension funds with fully funded fluctuation reserves were able to offer a higher interest rate (2.29 per cent) than those

that had to continue building up reserves (1.84 per cent).

Fortunately, Swiss pension funds were able to reduce their redistribution between pensioners and active employees in 2020. This was possible because the technical interest rates and conversion rates were reduced further, the coverage ratios and fluctuation reserves increased, and ultimately because the retirement assets of active insured members also earned higher interest.

Pension funds that have largely funded their fluctuation reserves have more free funds available for active insured members. This is a welcome development in view of the losses that active insured members have had to accept as a result of redistribution in the past.

# Collective pension schemes are faced with a dilemma

In the current environment, the tension between being competitive and the need to adjust technical parameters remains high, especially for collective pension schemes. In order to remain competitive, collective pension foundations and common pension schemes tend to offer higher technical interest rates and conversion rates and have correspondingly lower coverage ratios than autonomous and semi-autonomous funds.

If collective pension foundations now also want to adapt better to the current and future reality, they have to increase the effective interest rate on the retirement assets of active insured persons in return in order to remain competitive. However, the legislator imposes strict limits on improvements to benefits if the fluctuation reserves have not been fully funded. Compared to other pension funds, however, these are on average significantly lower in collective pension schemes, which means that good returns on investment can only be passed onto active insured members to a limited extent in the form of higher interest returns.

Management of investment assets

# Major differences in sustainability and performance



Iwan Deplazes
Head of Asset
Management,
Swisscanto Invest by
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The profitability and sustainability of pension funds play a key role in retirement planning. There is a widespread belief that, on balance, a majority of funds are performing similarly well. We would like to dispel this myth in this year's pension fund study, since there are sometimes considerable differences between individual pension funds. I would like to highlight three aspects in particular:

- Dealing with sustainability issues
- The massive spread of returns
- The vulnerability of the funds in view of the low interest rate environment

# Sustainability still not much of an issue for many small pension funds

The topic of sustainability is now almost everywhere. Something like a third dimension has opened up in the investment sector alongside risk and return. Many pension funds have responded to this trend and are taking sustainability more seriously. While large pension funds are getting to grips with ESG criteria and playing a pioneering role, many small pension funds on the other hand are in danger of missing out.

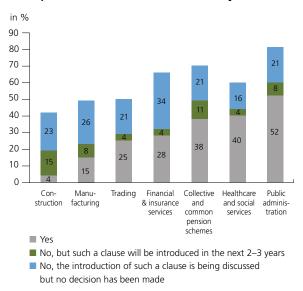
Forty-four per cent of large pension funds with assets of more than CHF 500 million already have a clause in their investment regulations stating that ESG criteria are to be applied. In the case of smaller pension funds, this figure is just 14 per cent. A quarter of all pension funds are discussing

how to integrate sustainability criteria into their operations.

Overall, large funds are well advanced in this regard, with 64 per cent already applying exclusion criteria in their investment process. This means for example that they refrain from investing in arms manufacturers, the tobacco industry or in countries that disregard human rights in general. So far, just under a third of smaller pension funds have adopted this approach.

The sometimes significant differences between pension funds in the individual sectors are also noteworthy. The public sector is well in the forefront in this respect, with more than half of funds having already included sustainability criteria in their investment regulations. Funds in the health and social care sector as well as collective and common pension schemes are also ahead of the average.

Figure 1: Some industries have significant room for improvement in terms of sustainability criteria



At the other end of the scale are funds in the construction and manufacturing sectors as well as in trade. The construction industry in particular has a lot of catching up to do – not even 5 per cent of pension funds take ESG criteria into account in their investment process and more than half are not even thinking about introducing such a clause.

There is a lot of room for improvement in particular when it comes to specific CO<sub>2</sub> reduction targets. This is because so far, only 4 per cent of all pension funds have set a greenhouse gas reduction target for their portfolio, even if 11 per cent are thinking about introducing such a target. The carbon footprint is measured by a slightly higher proportion of funds, but here too there is room for improvement.

#### "Performance matters"

All pension funds are more or less equally good – a statement which is heard all too often, especially

from politicians. In reality, however, the opposite is true, since there are significant differences in performance between pension funds. The range of returns over the past year is considerable, between –6.5 per cent for the worst fund and +12.3 per cent for the best, and the spread was also similar in previous years.

The difference in returns between the top 10 per cent and the bottom 10 per cent has been almost 3 percentage points per year on average over the past five years, or about 15 percentage points cumulatively. This underlines the fact that not all funds perform equally well on their investment assets. The study also shows that the differences in performance are not due to a structurally lower risk capacity. There is huge leverage here combined with the accumulated capital. It can be seen that pension funds with good returns in recent years enjoy significantly better fitness.

Figure 2: Comparison of pension funds with the highest and lowest performance



The performance gap between the best and worst performing pension funds is considerable at just under 3 percentage points.

If we look at the allocation of the portfolios in a little more detail, we see: The equity weighting has risen steadily in all funds over the past few years and reached a new record last year.

On average, the large funds achieved a 0.3 percentage point better return per year over the last ten years than the small funds. If you look at this in the context of the assets under management of around a trillion Swiss francs, it adds up to a huge amount of money that is falling by the wayside for investors. We can only speculate about the reasons why smaller funds perform worse than large ones. One thing is for sure: in terms of costs, almost all pension funds are on a level. However, larger funds invest more in alternative investments and respond more consistently to changes in the capital market. This is also shown by the changes in asset allocation over the last few years.

A greater willingness to take risks with regard to real estate investments also stands out. Concrete gold accounts for up to 42 per cent of the portfolios of some of the funds with the highest real estate ratios. Here too, it becomes clear that smaller funds in particular have taken on a significant cluster risk in their portfolios. So far there have been no negative effects, but in the future the strong focus on local real estate could also prove to be a disadvantage.

#### What if... an interest rate mind game

One reason for the higher risks that pension funds are taking is the low interest rate environment that has persisted for years. Since there are virtually no returns to be had on the bond markets, pension funds have had to resort to higher-risk asset classes in order to secure the necessary interest return.

However, this also raises the question of the impact which an interest rate hike would have, both in Switzerland and abroad. With rising inflation in the US, this scenario is far from unlikely. And here too, there are significant differences in pension funds' vulnerability to such a change in the interest rate landscape.

In a scenario where interest rates rose by 1 per cent, this can be expected to significantly impact the performance of all funds. On average, this would be expected to have a negative effect on the overall portfolio of an estimated 4.8 per cent. Here too, there should be a wide range between the best and worst performers. Though even in an environment like this, the more consistent the response to structural changes in the capital market, the higher the returns are likely to be.

### Pension funds in the age of political moralism



Hanspeter Konrad Lawyer, Director of the Swiss Pension Fund Association (ASIP)

An ever increasing number of sociopolitical and ecological demands are being made of the second pillar. Its primary task, however, is to provide pension benefits at favourable terms. In addition, the pension funds have demonstrated that they are prepared to meet the requirements of a modern investment policy (known by the acronym ESG) on a voluntary basis.

If one were to assess the latest discussions surrounding occupational pension provision, one might get the impression that pension funds are expected to solve all problems related to social policy. They are increasingly caught in the maelstrom of a debate characterised by a "political moralism" that ultimately prevents any objective discussion (see "NZZ", 16 April 2021). The growing list of ambitions – from promoting world peace to combating global warming – is increasingly limiting the scope for pension funds to take action and progressively leading to conflicts of interest.

In the context of these discussions, the strengths of occupational pension provision, which have also become apparent in recent years, should be emphasised more often. Their performance potential makes occupational pensions a strong second pillar of Swiss old-age, survivors' and disability pension provision. As long-term investors currently looking after more than CHF 1,000 billion, pension funds are also making a key contribution to the economy as a whole. In this context, it should also be empha-

sised how much the pension funds have already implemented in terms of sustainability-oriented investment policy. This is shown among other things by the data collected as part of the Swisscanto Pension Fund Survey 2021.

The responsible management bodies have been dealing with these issues for some time. This means that no regulations are necessary. Investment policy remains a matter for the joint bodies – which is right, since they are also responsible for the result. On the other hand, it is by no means a question of systematically subordinating investment performance to ecological objectives. ESG and climate risks are part of the economic risks and must be taken into account accordingly. This is undoubtedly in the long-term interest of insured members, as there are no decreases in returns which need to be accepted.

Pension schemes cannot solve all social, environmental and economic problems. They first need to concentrate on their main task, which is to provide benefits for the insured members at a reasonable price. Fortunately, the financial situation did not deteriorate in 2020. On the contrary, the pension funds have demonstrated their resilience and shown that they are solidly positioned and resilient even in times of crisis. Nevertheless, in an environment of negative interest rates and continuing increases in life expectancy, there is growing pressure to reform funding and benefit plans for pension funds. Switzerland's social policy agenda is therefore dominated by a debate about redesigning our pension system. In addition, even though climate change has been displaced by the Covid pandemic as the top issue on the political agenda in recent months, there are increasing calls for investment strategies to take environmental, social and corporate governance (ESG) criteria into account. Against this background, individual aspects of asset management and BVG reform are examined from a practical perspective below.

#### Portfolio management

ASIP repeatedly emphasises that in addition to adjustments on the liability side, the importance of the third contributor, i.e. investment income, should not be underestimated. As investors, pension funds must manage the assets of their insured members to ensure the security and sufficient return of the investments, an appropriate distribution of risks as well as coverage of foreseeable liquidity requirements. The basis for this is a long-term investment strategy that takes into account the risk capacity and risk appetite of pension funds. In fulfilling their fiduciary duty of care, pension fund managers must achieve the best possible return in line with the market while accepting reasonable risks.

Pension funds have to bear fluctuations and default risks themselves. Risk carriers primarily include the insured and the employers. Legislators and supervisory authorities should therefore exercise restraint in regulating asset management. The current provisions offer pension funds a high degree of freedom with regard to designing the optimal investment strategy and its implementation. As part of this process, the pension funds are well aware of their ethical, environmental and social responsibilities, as a survey of ASIP members also showed. They take environmental, social and corporate governance aspects (ESG criteria) into account on their own initiative.

The key findings of the ASIP survey underline the fact that the main motives for implementing ESG/ sustainability in the investment strategy for the pension funds are sustainability out of conviction on the one hand and the benefit for risk management on the other hand. For example, more than

half of the pension funds already use the exclusion list issued by the Swiss Association for Responsible Investment SVVK-ASIR, and more than a third have incorporated a sustainability strategy into their investment regulations. Around 60% to 80% of pension funds invested in equities and bonds are engaged in a sustainability strategy or in the implementation of both ESG negative and ESG positive criteria. However, sustainability strategies are also used by more than half of the pension funds invested in real estate and private equity. One third of the pension funds exercise voting rights for companies abroad and 40 per cent engage in dialogue with companies.

The results of the present study show the variety of options in terms of implementation and underline the fact that there is no "silver bullet" in terms of ESG implementation. However, it is highly recommended that pension funds report on their ESG activities voluntarily.

#### **BVG** reform

Once again, we find ourselves at the beginning of a challenging political debate around occupational pension reform (BVG). The pension funds are of the view that a solution must be fair and easy to implement but not create unnecessary costs, and that pension cuts must be prevented. In the context of the forthcoming parliamentary consultations, ASIP is therefore calling for a departure from the Federal Council's proposal and a switch towards a broad-based reform model based on the ASIP proposal, the so-called middle way/ASIP proposal. This reform model is now supported by numerous associations, such as the Swiss Master Builders' Association, GastroSuisse, Employers in Banking, the Swiss Retail Federation and the Farmers' Association. Various employee organisations also support this middle way/ASIP proposal.

In order to maintain the BVG pension level in the face of falling minimum conversion rates, a correspondingly higher level of retirement savings must be accumulated. One way to achieve this goal is to reduce the coordination deduction. This increases the pensionable salary. At the same time, pensions for insured members with lower incomes will be significantly improved, and at a lower cost than with the Federal Council's proposal. Accordingly, part-time workers in particular – who are often women – will benefit from this proposal.

The middle way/ASIP proposal suggests a percentage increase in the BVG retirement savings for all new retirees for a transitional period of ten years after the bill comes into force. This increase is to be financed by the provisions already set aside for this purpose for the benefit of the affected insured members. The pension funds have been obliged to set aside such provisions in recent years due to the excessively high BVG conversion rate. Using this money, which is already available, to maintain the pensions of the transitional generation is by far the most socially acceptable solution, and also the most favourable overall. A higher rate of contributions and the roundabout route via the security fund are no longer necessary. Against this background, it is hard to understand why the Federal Council does not want to use the provisions specifically set aside for this purpose for the transitional generation as well. With the middle way/ASIP reform proposal, the compulsory minimum occupational pension scheme can be revised in a timely, fair and cost-effective manner without leading to a new and unfair redistribution. Addressing these issues is an important objective of the reform.

#### Conclusion

The above shows that the pension fund industry does not oppose the legitimate reform proposals. However, it is not very effective to force pension funds into an ever tighter regulatory corset in the context of these reform discussions. Instead, it is necessary to take account of the tried and tested solutions already adopted at pension fund level. Together with the industry, sustainable and practical solutions can therefore be realised in the interests of all in an open and constructive dialogue.

# Results of the 2021 survey

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### Data and findings

A total of 514 (previous year 520) pension funds took part in the survey for the Swisscanto Pension Fund Study 2021. With CHF 777 billion in assets and 3.8 million beneficiaries, they represent around three quarters of total pension assets and insured members.

The average performance calculated is 3.97 (10.85) per cent, whereby public-sector funds at 4.25 per cent are ahead of private-sector funds at 3.92 per cent. The large differences that can be observed between pension funds are remarkable. At 12.3 per cent, the best fund achieved three times the average performance.

These positive results have led to a further increase in the coverage ratios. With an asset-weighted average of 116 (114) per cent, private-sector funds have reached an all-time high and a majority therefore have fluctuation reserves of 15 per cent, which is considered a rule of thumb. The public-sector funds also beat the previous year's level once again with 109 (108) per cent. Sixty-nine per cent of all pension funds have fluctuation reserves of at least 75 per cent. This increases the scope of the pension funds to credit more of the return on investment to their members.

The main topic of this year's survey, "Sustainability", makes it clear that pension funds have made great progress even without legal pressure. Twenty-five (2015: 8) per cent of all participating funds have explicitly included ESG (environment, social, governance) criteria in their investment regulations. At 53 (24) per cent, the same can be said for more than half of public-sector funds. Private-sector funds lagged behind at 21 (6) per cent. Fifty-six per cent of large pension funds (with more than CHF 500 million in fixed assets) apply ESG criteria or will implement them within three years.

The reduction in technical interest rates and conversion rates that has been observed for years has continued. The funds of private-sector employers in the defined contribution plan have an average discount rate of 1.57 (1.67) per cent. A further slight reduction occurred compared with the previous year. In terms of conversion rates, this is reflected in a reduction in the rate for men from an average of 5.63 to 5.52 per cent.

This reduction naturally leads to a decrease in redistribution within pension funds. This is reflected in a better interest return for active employees in relation to that for pensioners. For the last five years, the annualised interest return on retirement assets for active employees has averaged 2.09 per cent, compared to 1.91 per cent for pensioners. This should put an end to several years of generally much lower interest returns for assets – assuming a positive investment result.

A much-discussed topic in the context of pension reform is the equalisation of the retirement age for women to 65. In this context, it is interesting to note that the reference age for women is already 65 in 62 per cent of public-sector funds. The corresponding figure for private-sector funds is much lower at 34 per cent.

Table 1: Survey participants and their composition in 2021

	Pension 1	funds	Collective and communal pension schemes (CCPI)					
Founder of the pension fund	Private-sector company	Public-sector institution	Private-sector company	Public-sector institution	Total*			
Number of pension funds	362	45	88	18	514			
Pension fund assets in CHF billions	348	157	170	101	777			
Average number of affiliated employers	13	44	2′875	100	493			
Active insured members in thousands	713	374	1′624	214	2′924			
Number of pensioners in thousands	350	174	248	114	886			
Total insured members in thousands	1′063	547	1′871	328	3′811			
Pension capital of active insured members	50%	47%	71%	48%	55%			
– of which retirement assets under BVG	44%	52%	42%	41%	45%			
Pension capital of pensioners	50%	53%	29%	52%	45%			

 $<sup>\</sup>ensuremath{^{\star}}$  incl. pension funds without information about the founder

Despite difficult and challenging circumstances, 514 pension funds took part in the 2021 survey, which is only slightly lower than the previous year's 520. Recorded pension assets rose to CHF 777 (772) billion, largely due to price gains. The number of beneficiaries (active employees and pensioners) remained at the previous year's level of around 3.8 million.

According to the latest statistics from the Swiss Federal Statistical Office as of 2019, the total of 1,491 pension funds insure 4.34 million active employees and 820,000 pensioners. The reported assets are valued at CHF 1,005 billion. Based on these figures (with different recording dates), the Swisscanto survey covers more than three quarters of the assets under management and beneficiaries.

The number of affiliated employers per participating pension fund has been determined for the first time. It may come as a surprise that pension funds that are not classified as collective and common

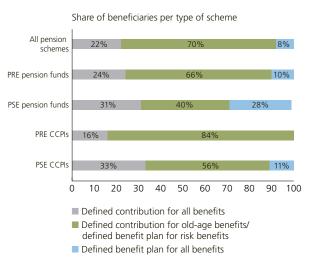
pension schemes also predominantly insure the workforce of a number of employers. The average for private-sector pension funds is 13 per cent, and 44 per cent for the much larger public-sector funds.

Among private-sector pension funds, 28 per cent have an affiliated employer. Eighteen per cent of funds have more than ten affiliated employers. On average, private-sector funds (excluding collective and common pension schemes) have around 2,900 beneficiaries while public-sector funds have an average of 12,150 beneficiaries.

### A Pension funds and insured members

#### 1 Defined benefit and defined contribution plans

Chart A-1: Type of pension fund by legal form and beneficiary



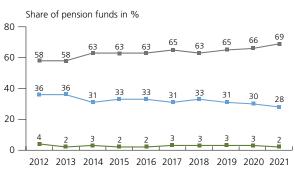
The long-standing decline in the importance of the defined benefit plan continued in the year under review, albeit to a comparatively minor extent. For all pension funds participating in the survey, there is an unchanged share of 8 per cent offering the defined benefits plan for both the retirement benefits and risk benefits of their insured members.

However, the share of funds with defined contribution plans for retirement benefits and defined benefit plans for risk benefits rose by five percentage points to 70 per cent, while at the same time the share of funds with defined contribution plans for both benefits fell from 26 to 22 per cent. This is a welcome development from the point of view of insured members.

The chart makes it clear that defined benefit plans are largely the domain of public employers. However, the share of their pension funds with a full defined benefit plan also fell slightly from 30 to 28 per cent.

#### 2 Flexible retirement

Chart A-2: Change in the earliest possible retirement age for men

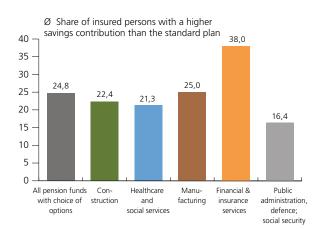


The trend that has been observed for several years continued in the year under review. An increasing proportion of the participating pension funds give the earliest possible retirement age for men at 58, while the funds which first pay out at 59 are falling further behind and age 60 is only of marginal importance at 2 per cent (previous year: 3 per cent). This development is somewhat surprising in view of the calls to increase the retirement age.

- Earliest possible retirement age of 58
- Earliest possible retirement age of 59
- Earliest possible retirement age of 60

#### 3 Choice of options for savings plans

Chart A-3: Use of savings plans with a higher savings contribution than the standard plan

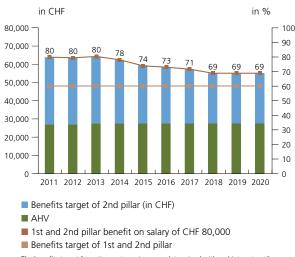


More than half of pension funds at 53 (48) per cent already offer insured members a choice of different savings plans. When it comes to the question of what proportion of insured members choose a plan with a higher premium than the standard plan, there are considerable differences depending on the industry. The average for all funds with a choice of options is 24.8 per cent, ranging from 16.4 per cent in the public administration and social security sector to 38.0 per cent in the financial and insurance sector.

In general, it can be said that the willingness to voluntarily pay more into the pension fund than required by the standard plan is relatively low. This is particularly true of public administration. On the other hand, the advantages of increased savings deposits are comparatively well used in the financial sector. It can be concluded that the advantages are recognised more readily in this sector. In construction and healthcare, lower incomes may limit the motivation to voluntarily contribute more to retirement savings.

#### 4 Benefits

Chart A-4: Change in the benefits target for old-age pensions at a salary of CHF 80,000



The benefits target for retirement pensions was determined with real interest until reference year 2014. Since 2015, the "golden rule" has been applied, whereby it is assumed that "Salary growth rate = rate of interest"

As in the previous year, the survey of the benefits target for old-age pensions at a salary of CHF 80,000 gave an unchanged value of 69 per cent. Since the AHV portion remained unchanged, this results in the pension fund benefits calculated becoming stable.

It is important to note that these figures do not relate to the actual benefits paid out, but to the amounts calculated on the basis of the regulations and applicable parameters, which do not always include all elements of actual benefit provision.

The reduction in pension fund benefits, which is frequently invoked in political discussions in particular, must be questioned against the background of these figures. This is true at least for the salary level referred to, which is within the BVG mandatory range. Higher incomes are more strongly affected by biometric developments and the low interest rate environment. Mention should also be made of the excessive minimum conversion rate, which leads to internal redistribution at the expense of beneficiaries in the extra-mandatory area. However, the ongoing reduction in conversion rates in all-inclusive funds should also lead to stabilisation there.

It should ultimately be noted that with a calculated average replacement rate of 69 per cent for all participants (right scale) from pillars 1 and 2, the informal guideline of 60 per cent for maintaining the lifestyle insured persons are accustomed to has been significantly exceeded.

The median of the BVG benefits target for public-sector pension funds for 2020 was 41 (38) per cent; if the AHV is included, this comes to an average replacement rate of 75 (74) per cent. The median for private-sector pension funds is 33 (34) per cent, or 67 (68) per cent including the AHV.

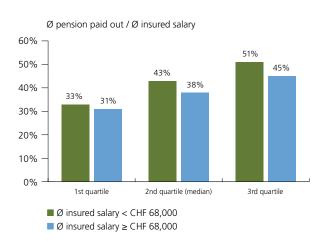
There is therefore a considerable difference in benefits between private- and public-sector pension funds, but the opposite trends have resulted in a slight compensation as in the previous year.

The median value for collective and common pension schemes (with brokers' fees and marketing expenses) that are active on the market is also 29 (29) per cent. Together with AHV, this makes an average replacement rate of 64 per cent, which is also above the 60 per cent targeted by the legislator.

#### Comments:

The sharp drop between 2014 and 2015 is partly explained by the changes in the way the questions were formulated. Until 2014, answers were given based on the actual regulatory provisions, but from 2015, they have been recorded as calculations based on the golden rule (interest return equals wage growth) as the total of all retirement assets multiplied by the applicable conversion rates. It can be assumed that to determine benefits, this simplified formula will tend to produce lower results than those that actually apply, for example because real interest return is not included.

Chart A-5: Distribution of actual benefits calculated as a ratio of pension to insured salary



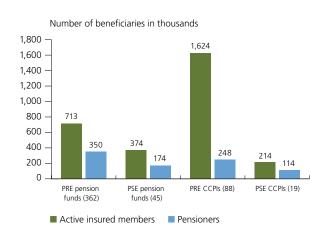
In addition to recording the benefits based on the regulations (A-4), the actual benefits of pension funds by income group were examined. The pension paid out is calculated as a percentage of the insured salary on the basis of the median insured salary of CHF 68,000 and in quartiles.

For insured salaries below CHF 68,000, the pension actually paid out is between 33 and 51 per cent, with a median of 43 per cent of the insured salary. As expected, the percentage is lower for insured salaries above CHF 68,000, with values ranging from 31 to 45 per cent and a median value of 38 per cent.

The insured salaries that are below the median are largely within the BVG mandatory range, where the pensions paid out are barely affected by redistribution, if at all, and do not benefit from it either.

#### 6 Active employees and pensioners

Chart A-6: Active employees and pensioners by pension fund category



There are substantial differences in the ratio of active insured members to pensioners across the various categories of pension fund, and this has a corresponding impact on their respective funding situation.

Looking at the total of all pension funds taking part in the survey, the proportion of pensioners out of the total number of beneficiaries is 23 (23) per cent. For pension funds (excluding CCPIs) with a private-sector employer, the proportion is 33 (33) per cent, and for those with a public-sector employer, the proportion is 32 (32) per cent.

The proportion of pensioners has therefore not increased within the last year. In any case, the fore-seeable wave of retirements in the second half of this decade (the retirement of the largest baby boomer cohorts) will pose a challenge to pension funds and pension provision in general.

The proportion of pensioners is only 13 (14) per cent for CCPIs with a private-sector founder, while the other CCPIs were marginally higher than the values for private and public-sector pension funds at 35 (35) per cent.

The low proportion of pensioners in private-sector CCPIs is primarily due to the lower average age of the workforce of the affiliated companies.

### B Capital investment and asset allocation

#### 1 Asset allocation

Chart B-1: Asset allocation 2011-2020



<sup>\*</sup> Until 2016 investments with the employer

The structural shift in asset allocation that has been observed for several years continued in 2020. Put in simple terms, this means that real assets have once again posted gains at the expense of nominal ones. The share of real estate increased from 24.3 to 24.4 per cent and that of shares from 31.6 to 32.7 per cent. Shares therefore make up just under one third. Together the two categories account for 57.1 per cent, well over half of the investment volume. The persistently low interest rate environment is at the expense of bonds, which suffered a further decline from 29.3 to 28.9 per cent.

The remaining investments together account for only 14 per cent. The decline in liquid funds from 5.5 to 4.6 per cent is noteworthy. Negative interest rates probably play a decisive role here. In the case of alternative investments, shifts could only be discerned at less than 1 per cent. Infrastructure investments, which are now included in BVV2 as a separate category, account for 0.8 (0.7) per cent.

<sup>\*\*</sup> Since 2020

Table B-1: Investment classes 2011-2020

Average asset allocation in %

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash	7.5	7.4	7.6	7.0	5.6	5.1	5.8	5.6	5.5	4.6
Loans from 2017**	0.6	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.8
Equities and other shareholdings with employer	0.3	0.3	0.3	0.3	0.2	0.2	*	*	*	*
Bonds CHF	27.5	25.5	24.6	24.3	22.9	21.7	20.0	20.3	19.3	18.7
Bonds foreign currencies	9.7	10.3	9.9	10.5	10.4	10.7	10.4	10.6	10.0	10.2
Domestic equities	11.9	12.4	13.2	13.1	13.4	13.1	14.2	12.8	13.8	13.9
Foreign equities	14.1	15.2	16.2	16.3	16.8	17.6	18.0	16.5	17.8	18.7
Domestic real estate	19.7	19.3	18.9	19.1	20.2	20.7	20.7	22.2	21.8	21.9
Foreign real estate	1.0	1.1	1.1	1.3	1.7	1.9	2.1	2.6	2.4	2.5
Mortgages	1.6	1.6	1.6	1.2	1.1	1.2	1.3	1.3	1.4	1.5
Hedge funds	2.0	1.9	1.7	1.5	1.4	1.4	1.2	1.3	1.1	1.2
Private equity	0.7	0.8	0.7	0.8	0.9	0.9	0.8	0.9	1.1	1.2
Commodities	1.5	1.7	1.3	1.1	0.8	0.9	0.8	0.6	0.7	0.7
Infrastructure investments	*	*	0.2	0.2	0.2	0.3	0.4	0.6	0.7	0.8
Non-traditional nominal value investments	*	*	*	*	0.5	0.5	0.6	0.5	0.6	0.6
Other alternative investments	0.9	1.1	1.1	1.8	2.1	2.2	2.4	2.4	2.4	2.5
Other assets	1.0	0.6	0.8	0.7	1.0	0.8	0.9	1.3	0.9	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>\*</sup> not determined

#### Comments:

The values given in the table are purely average values. The OAK-BV values in its annual survey of the financial situation of pension funds are asset-weighted, which explains any discrepancies between the data. The larger number of pension funds covered by the OAK must also be taken into account, which particularly relates to smaller schemes.

<sup>\*\*</sup> Until 2016 investments with the employer

Table B-2: Investments, investment forms and size of pension fund

Mean asset share per asset group in  $\,\%\,$ 

	<50 million	50-100 million	100-500 million	500-1,000 million	1,000-5,000 million	>5,000 million
Investment foundations	31.0	21.1	22.5	14.6	17.1	15.7
Investment funds	56.4	44.4	42.8	49.3	44.1	39.1
Investment companies	0.4	0.0	1.0	0.9	1.5	2.4
Category-based mandates	11.3	2.6	17.0	19.3	22.0	48.1
Mixed mandates	52.0	58.4	45.9	27.8	5.7	0.3
Structured products	1.8	2.1	0.4	0.1	0.2	0.1
Real estate Switzerland: direct investments	12.6	8.5	10.8	10.7	13.1	10.0
Real estate Switzerland: indirect investments	16.7	20.8	15.1	13.7	11.5	7.6
Real estate abroad: direct investments	0.0	0.0	0.0	0.0	0.0	0.3
Real estate abroad: indirect investments	2.2	5.7	2.9	3.2	2.9	3.6
Index investments	25.9	36.8	35.0	34.5	28.5	28.9
Investments according to ESG criteria	14.8	22.5	27.5	29.1	39.6	56.2

The matrix of investment forms and size of the pension fund shows the connections to be expected. Investment foundations and investment funds become less important as the size of the pension fund increases. This applies even more to mixed mandates, which are practically non-existent in large pension funds. Indirect real estate investments are also primarily found in smaller pension funds. Category-based mandates are the most important form of investment for large funds with CHF 5 billion or more in assets, accounting for a good 48 per cent of the total.

Again, investments were surveyed which were explicitly made according to ESG criteria. Their proportion increases continuously with the size of the fund, from just under 15 per cent for the smallest pension funds to over 56 per cent for the largest funds with CHF 5 billion or more in assets. The capital-weighted share is 55 per cent for funds with

more than CHF 1 billion. For funds with less than CHF 1 billion, the capital-weighted share is 29 per cent.

An increase can be seen in all fund categories in this respect compared with the previous year. It is particularly pronounced in the case of the smallest pension funds, where a new share of 14.8 per cent is reported compared with 3.7 per cent in the previous year.

Since investment forms overlap several times in the individual asset categories, the percentages add up to more than 100 per cent.

Table B-3: Change in asset share in investment funds, investment foundations and indexed investments

Average asset share in %

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Investment funds	34.2	37.6	40.8	41.1	40.9	43.2	42.2	46.0	44.1	41.6
Investment foundations	23.6	20.8	21.1	22.6	20.4	21.4	22.0	19.0	20.3	19.7
Index investments	21.8	24.5	22.4	24.9	24.1	26.8	28.1	29.0	31.1	30.1

A look back at the development of investment funds, investment foundations and indexed investments in the portfolios of pension funds over the last ten years shows the changing trends for the three areas. Investment funds showed strong growth from around 34 per cent to 46 per cent between 2011 and 2018, but have since fallen back to below 42 per cent.

Investment foundations had their best year in 2011 at the beginning of the observation period with 23.6 per cent, then show a gradual straight-line decline. Their share was determined to be less than 20 per cent for the year under review.

Index investments on the other hand were up almost every year, peaking at 31.1 per cent in 2019. Since then they have fallen back by one percentage point.

Chart B-2: Size of pension fund and asset allocation

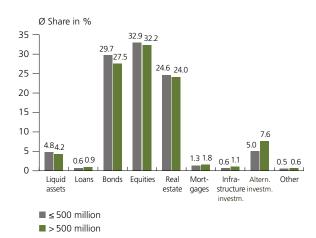
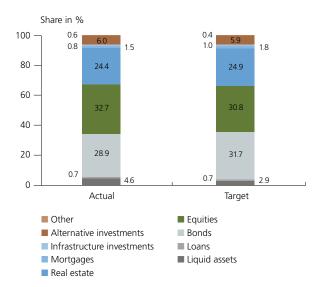


Chart B-2 shows the dependence of asset allocation on the size of the respective pension fund, with a distinction made between the size of assets at CHF 500 million.

In the three traditional areas of bonds, equities and real estate, the shares of the smaller funds are consistently more significant than those of the large funds. The reverse is true for the remaining sectors, and is particularly pronounced for mortgages, infrastructure investments and alternative investments. Larger health insurance funds have a greater share of these assets in particular, with 7.6 per cent compared to 5.0 per cent. However, a year-on-year decline from 8.7 to 7.6 per cent can be discerned among the major insurers. This is due to the fact that infrastructure investments now form a separate investment category and are no longer part of alternative investments.

Chart B-3: Comparison of actual/target asset allocation



To what extent does the current asset allocation correspond to the objectives of the pension funds, and where are there major differences?

The largest deviation by far is seen in bonds, where a significantly higher proportion is desired at 31.7 per cent compared to the current level of 28.9 per cent. The reason for the difference is obvious. At the current level of interest rates, fixed income securities are not yielding enough. On the other hand, slightly more money is invested in equities than is generally envisaged in the strategies. The actual and the target values are not far apart in terms of real estate, although an additional slight increase seems to be desired overall.

For the remaining categories, it should be noted that funds want to reduce liquidity even further. In the case of alternative investments, there is also currently a tendency towards slightly reducing holdings.

#### 2 Real estate investments

Chart B-4: Change in direct and indirect real estate investments



Swiss real estate: direct investmentsSwiss real estate: indirect investments

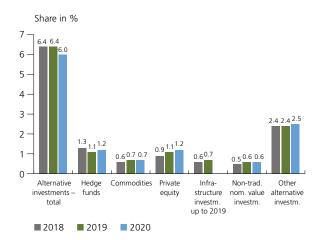
Chart B-4 makes it visibly clear that indirect real estate investments have steadily gained in importance over the observation period since 2011, whereby the starting year appears as a statistical outlier (limited sample).

If one follows the figures over time, from 2016 onwards it becomes apparent that a larger proportion is accounted for by indirect than direct investments, and that this trend has steadily increased. In the year under review, they accounted for 55 per cent of real estate investments, compared to just 46 per cent in 2012.

This is particularly true for smaller pension funds with assets of less than CHF 500 million. Listed funds account for almost two thirds (64 per cent) of their real estate investments, with the drawback of related premiums. Among larger pension funds, the share is 56 per cent.

#### 3 Alternative investments

Chart B-5: Alternative investments as a multi-year comparison



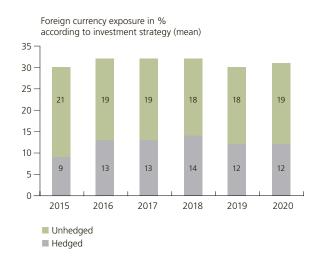
For some time now, a great deal of work has been done to persuade pension funds of the benefits of alternative investments and to convince them of the advantages they offer in terms of returns and diversification. However, results have been modest.

In the year under review, the total in this sector even registered a sharp fall from 6.4 to 6.0 per cent. This is because infrastructure investments no longer form part of alternative investments. A longer upward trend can be seen in private equity. Infrastructure investments give reason for hope that barriers for pension funds will be removed and investment will be facilitated where there is also the political will. This is not least due to the creation of a separate investment category in the BVV2. They were removed from the alternatives category and given a generous limit of 10 per cent.

New providers for these kinds of product are busy exploiting this market. Since there is a close correlation between the interests of the national economy and the investment needs of pension funds, it can be expected with a certain degree of confidence that the investment range will open up as desired in the longer term.

#### 4 Hedging of foreign currency investments

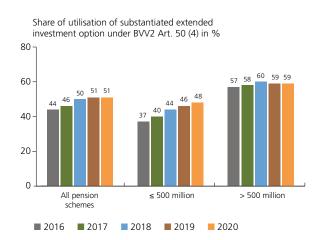
Chart B-6: Strategic foreign currency exposure



Almost no change can be discerned in the chapter "Hedging of foreign currency investments" compared to the previous year. The hedged portion remains at 12 per cent, while foreign currencies account for a slightly higher portion of total investments at 31 (30) per cent.

#### 5 Category restriction and substantiated extended investment option

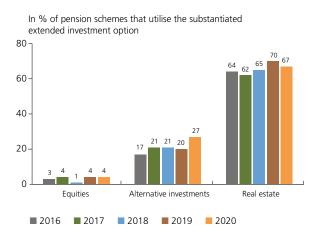
Chart B-7: Utilisation of substantiated extended investment option by size of pension fund



Under Art. 50 (4) BVV2, pension funds are given the option of exceeding the investment category limits of BVV2 through a substantiated extended investment option.

The survey shows that smaller and medium-sized funds are also making increasing use of this option. The proportion of small and medium-sized funds using this option has increased significantly in recent years, while the proportion of the largest funds doing so has stabilised at a high level.

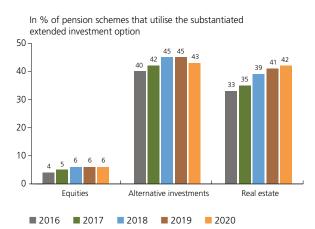
Chart B-8: Substantiated extended investment option by investment category for pension funds ≤ CHF 500 million



The two charts on the use of the substantiated extended investment option by investment category show the differences by fund size, with the limit being drawn at an investment volume of CHF 500 million. At the same time, the changes over a period of five years are shown.

In the case of the smaller pension funds it is mainly real estate, where the specified limit of 30 per cent often appears to be exceeded. There was also a noticeable increase in alternative investments in the year under review.

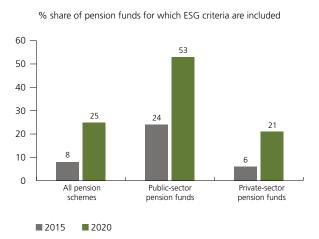
Chart B-9: Substantiated extended investment option by investment category for pension funds > CHF 500 million



With regard to funds with over CHF 500 million in investments, in addition to real estate it is also alternative investments which often trigger a justification for the excess. This is perhaps surprising given the still modest share of investment in this sector. It can be assumed that a minority of the funds are heavily involved in this sector, while the rest tend to keep their distance, resulting in an overall average for the portfolios that is not particularly meaningful.

#### 6 Sustainability

#### Chart B-10: Incorporation of ESG in the investment regulations of pension funds

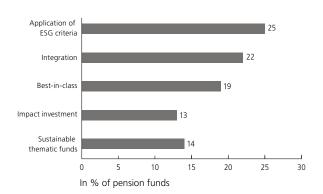


The share of funds that have included ESG (environmental, social, governance) criteria in their regulations has tripled in the last five years, and now accounts for a quarter of the responding funds.

There is a striking difference between privatesector funds and public-sector funds. While only 21 per cent of private-sector funds include ESG criteria in their regulations, the figure for publicsector funds is much higher at 53 per cent. There is likely to be some political pressure at work here.

In addition to the 25 per cent of funds which already apply ESG criteria, 9 per cent are planning to introduce them in the next two to three years. In the case of the additional 25 per cent, the question is being discussed by the boards of trustees without a specific decision having been taken as yet.

Chart B-11: Sustainable investment strategies employed



Within the topic of sustainable investment strategies, the survey also identified the instruments used for this purpose in addition to the inclusion of ESG criteria as a matter of principle.

The term "integration" refers to the explicit inclusion of ESG criteria in traditional financial analysis which, at 22 per cent, is naturally mentioned almost as frequently as ESG criteria in general.

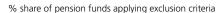
Best-in-class refers to investment strategies that select the best companies within an industry, category or class based on ESG criteria. This approach is taken by 19 per cent of funds.

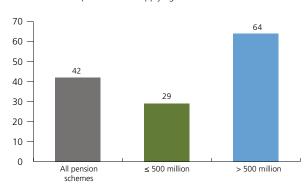
Impact investments and sustainable thematic funds were named by 13 and 14 per cent respectively. Impact investments are investments in companies, organisations or funds with the aim of exerting an influence regarding social and environmental issues in addition to yielding a financial return. The latter is made up of investments in themes or assets which are related to the promotion of sustainability and have an ESG connection.

In addition, the answers to the question of whether the pension funds also exercise their shareholder rights to influence the corporate policy of Swiss companies with regard to ESG criteria are attached here.

Of all the 426 responding funds, 31 per cent do this by exercising voting rights directly and/or 45 per cent indirectly via funds or investment foundations in the case of collective investments. Among larger funds, the corresponding percentages are 46 and 50 respectively.

#### Chart B-12: Application of exclusion criteria



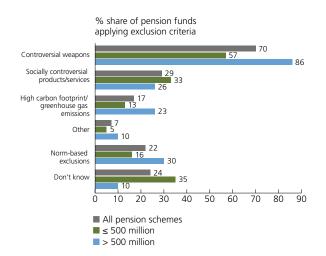


Forty-two per cent of all responding funds state that they use exclusion criteria to exclude certain companies, industries or entire countries from their investment universe if they violate specific criteria.

There are considerable differences between different size categories. The share for smaller funds (under CHF 500 million in investments) is 29 per cent. For those above that figure however, the share is 64 per cent. It is evident that exclusion criteria are used much more frequently than formal ESG criteria.

A breakdown by legal form shows that such criteria are applied by a total of 38 per cent of private-sector funds and 73 per cent of public-sector funds.

Chart B-13: Exclusion criteria applied

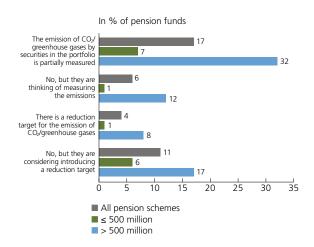


The exclusion criteria relate in particular to controversial weapons. This includes nuclear weapons, cluster munitions, biological and chemical weapons according to SVVK-ASIR (Swiss Association for Responsible Investment). On average, they are used by 70 per cent of all funds active in Switzerland. This is followed by socially controversial products and services such as tobacco, alcohol, pornography, etc. at 29 per cent.

Norm-based exclusions are screenings of investments according to their conformity with international standards and norms relating to ESG criteria. They are explicitly used by 22 per cent of the funds with exclusion criteria. Investments with a high CO<sub>2</sub> footprint, such as those involving the extraction of fossil fuels, account for 17 per cent.

In general, it is clear that smaller funds cite the above criteria for their investment activities to a lesser extent than larger ones, and that public-sector funds cite them more frequently than private-sector funds. However, it can be assumed that there are only minor differences in the actual investment activities and that hardly any pension funds invest in companies which, for example, manufacture controversial weapons or deal in pornography.

Chart B-14: Measurement of CO<sub>2</sub>/greenhouse gases in the portfolio and reduction target



One of the advanced and complex elements of the current sustainable investment policy is the measurement of CO<sub>2</sub>/greenhouse gas formation of the companies represented in the portfolio and the associated setting of a reduction target.

Here too, it is the larger pension funds that carry out such measurements, with around one third already doing so. Another 12 per cent of funds in this category are considering carrying out these kinds of measurements. The corresponding figures for the total number of pension funds are 17 and 6 per cent respectively.

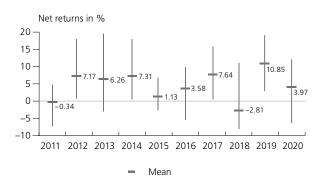
Of these 17 per cent of all funds which measure CO<sub>2</sub>/greenhouse gas formation, this is done in 84 per cent of cases for equities, 71 per cent for corporate bonds, 57 per cent for Swiss real estate and 33 per cent for government bonds.

A reduction target is set by 4 per cent of all pension funds and 8 per cent of larger funds.

## C Performance and interest rates

#### 1 Performance

#### Chart C-1: Net returns 2011-2020



As shown by the graph, the performance figures over the last ten years tell a story of ups and downs.

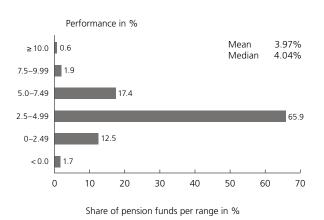
Remarkably and optimistically, the mean values only slipped into negative territory twice during this period, with -0.34 per cent in 2011 and -2.81 per cent in 2018.

The 3.97 per cent achieved in the year under review is essentially satisfactory, and in view of the pandemic-related circumstances is even highly gratifying. That figure has been exceeded no less than five times since 2011.

The result for 2020 covers a range between –6.5 per cent for the lowest reported value and 12.3 per cent for the highest.

With an average of 4.25 (median 4.34) per cent, the pension funds of public-sector employers clearly exceed those of private-sector employers with 3.92 (3.93) per cent. Smaller differences were found among CCPIs, with an average of 3.82 per cent for private-sector employers and 3.98 per cent for those in the public sector. The figures refer to the performance after deduction of asset management costs.

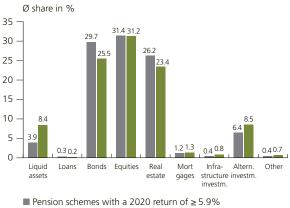
Chart C-2: Distribution of performance



Two thirds of funds have a performance within a narrow corridor between 2.5 and 4.9 per cent, suggesting that their strategies and asset allocations are similar.

Roughly the same number achieved more as achieved less, whereby the 10 per cent of funds with the best net performance achieved a return of at least 5.90 per cent. The 10 per cent of funds with the lowest net performance recorded returns of less than 1.81 per cent. The next section covers how the funds in question differ in their asset allocation.

#### Chart C-3: Performance and asset allocation



Pension schemes with a 2020 return of ≥ 5.9%
Pension schemes with a 2020 return of < 1.8%

The chart shows how the investments of the per cent of funds with the highest performance (grey) differ from those of the 10 per cent with the lowest (green).

At first glance, the differences are surprisingly small. The largest deviation can be found in liquid funds, which emphasises the importance of the active management of funds.

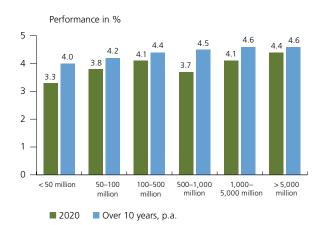
A more in-depth analysis shows that it was not the amount of total investments in bonds, equities and alternative investments that was the decisive factor, but the composition of domestic and foreign securities which caused the difference.

In the 10 per cent of funds with the highest performance, the share of bonds in foreign currencies is 3.9 percentage points higher than in those with the lowest at 11.0 per cent. World bonds hedged in CHF yielded 3.90 per cent, while CHF bonds only yielded 0.90 per cent.

The share of foreign equities in the top 10 per cent of funds is also 6.6 percentage points higher at 21.0 per cent. At the same time, the share of Swiss equities is significantly lower than in the weaker group at 10.4 per cent compared to 16.7 per cent. According to the index returns available for 2020, Swiss equities returned only 3.82 per cent last year, while global equities returned 6.60 per cent.

There is also a significant difference in alternative investments. For example, the share of "other alternative investments", which includes private debt and cat bonds, is 1.7 percentage points lower among the higher-performing funds than among the 10 per cent with the lowest performance at 2 per cent.

Chart C-4: Performance and size of pension fund



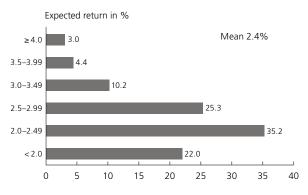
The results shown in the chart for the average performance achieved as a function of investment volume confirm that the size of a fund has a significant influence on its return potential. This can be seen both in the latest results for 2020 as well as over the ten-year period.

Over the longer time period with the corresponding smoothing mechanisms, there is an almost linear increase in performance of 4.0 to 4.6 per cent between the smallest funds with less than CHF 50 million in assets and the largest with more than CHF 1 billion. It no longer makes a significant difference whether a fund administers CHF 1 billion, CHF 5 billion or more.

The one-year comparison for 2020 is more strongly influenced by coincidences and the current sample, though a correlation between fund size and return can also still be identified here. The difference between the smallest and the largest category is not less than 1.1 percentage points.

#### 2 Reference return and expected return

#### Chart C-5: Expected return



Share of pension funds per range in %

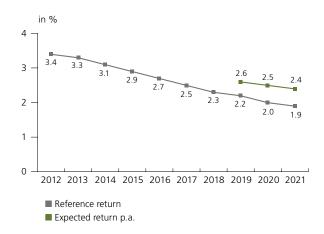
What returns do the funds expect based on the given strategy? The figures in Chart C-5 give an idea of the outlook according to the actuarial reports (excluding asset management costs).

More than a third are positioned between 2 and 2.5 per cent. Around 83 per cent of pension funds expect a maximum of 3 per cent, with only a small minority exceeding this figure.

The 10 per cent of pension funds with the lowest values expected returns below 1.63 per cent. The 10 per cent of pension funds with the highest values expected returns of at least 3.20 per cent. The median predicted return is 2.30 per cent and the mean is 2.4 per cent.

The strategy and the predicted return on investment depend on both the willingness and ability to take risks, which in turn are determined by the structure regarding active and retired employees, any foreseeable restructuring on the part of the employer as well as additional factors.

Chart C-6: Comparison of reference return and expected return



The reference return is the return that must be achieved by a pension fund in one year in order for the funding ratio to remain constant.

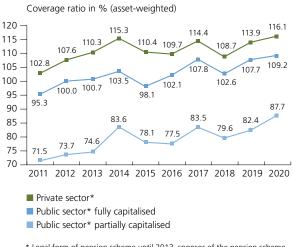
Since 2012, the pension funds participating in the survey have been able to steadily reduce their reference return from 3.4 to 1.9 per cent thanks to corresponding adjustments to their funding, thus falling below the 2 per cent mark for the first time. This low reference return makes them more robust and less susceptible to underfunding risks.

The expected return is half a percentage point higher, which can also be taken as a measure of the current security margin.

## D Coverage ratio

#### 1 Coverage ratio and change in coverage ratio

Chart D-1: Change in coverage ratio since 2011



Legal form of pension scheme until 2013, sponsor of the pension scheme from 2014

In a multi-year comparison since 2012, the result for the year under review represents a record for all three categories shown – private-sector pension funds as well as public-sector pension funds with and without partial capitalisation. This is of particular importance in view of the events and concerns which shaped the pandemic year of 2020.

After the slump in the first quarter, the stock markets in particular then experienced an unexpected recovery and in some cases a rapid upswing. The coverage ratio of 115 per cent, which is considered the rule of thumb for hedging an average equity portfolio and other price risks, was exceeded for the first time.

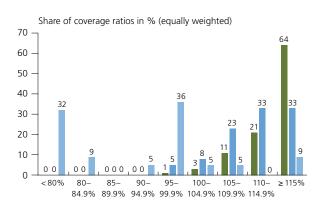
The public-sector funds with full capitalisation are still lagging behind, although it should also be borne in mind that they use technical interest rates that are on average around 0.2 percentage points higher than those in the private sector. At the same interest rate, the coverage ratio would be around 2 per cent lower.

The greatly improved situation of the public funds with partial capitalisation must be described as pleasing. With the figure achieved of almost 88 per cent, they are now clearly above the 80 per cent figure targeted by the legislator after the current transitional period of 40 years expires.

It should also be noted here that the funding ratio must be seen in the context of the extraordinarily low technical interest rates, which makes the current situation even more remarkable.

Since a lower technical interest rate requires a higher coverage capital, the question arises as to how this is reflected in the distribution of the stated interest rates and coverage ratios. Perhaps contrary to expectation, a correlation analysis for 2020 shows that higher coverage ratios tend to go hand in hand with low technical interest rates.

Chart D-2: Distribution of coverage ratios by founder



- Sponsors: Private sector employers
- Sponsors: Federal state/cantons/municipalities (fully capitalised)
- Sponsors: Federal state/cantons/municipalities (partially capitalised)

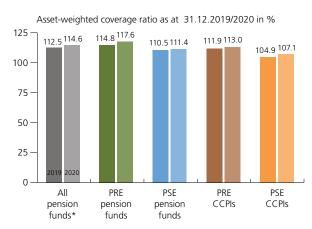
The pension funds of private-sector employers have significantly higher coverage ratios than those of public-sector employers on average. Whether the difference which has traditionally existed is plausible or not remains to be seen.

On the other hand, it is indisputable that a higher coverage ratio of a fund offers greater security, but also results in higher financing costs. The public-sector employers, whose existence can be considered practically assured under all circumstances, can probably afford a smaller "security margin" in this respect.

In concrete terms, almost two-thirds of private-sector funds have a coverage ratio of over 115 per cent, whereas only one third of the fully capitalised funds of the Confederation, cantons and municipalities do. The 110 per cent limit is also exceeded by two thirds of public-sector funds but 85 per cent of private-sector funds.

At the same time, only one fund of a private-sector employer is underfunded and only 5 per cent of public-sector funds are fully funded. All in all therefore, the picture is extremely pleasing.





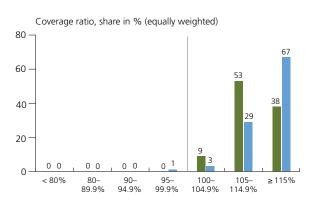
<sup>\*</sup> Excluding partially capitalised pension schemes

In Chart D-3, the coverage ratios are broken down by employer and management type. The assetweighted average for all pension funds is 114.6 (112.2) per cent. The average of funds from private-sector employers was 117.6 (114.8) per cent, and for public-sector employers the figure was 11.4 (110.5) per cent.

The equivalent figures for private-sector employers are 113.0 (111.9) per cent for collective and common pension schemes and 107.1 (104.9) per cent for public employers.

For competing CCPIs (with advertising and/or brokerage costs), the coverage ratio is 112.1 (111.1) per cent.

Chart D-4: Distribution of coverage ratios by management type, without partially capitalised pension funds



■ Collective and common pension schemes (CCPIs)

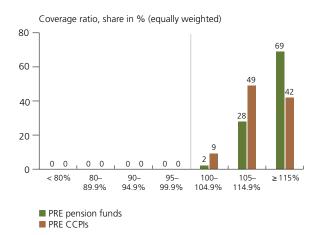
Pension funds (fully capitalised)

Chart D-4 shows the differences in the coverage ratio distribution between fully capitalised pension funds and collective and common pension schemes.

The CCPIs generally have lower values. For example, the group of funds with a coverage ratio of over 115 per cent includes 67 per cent of pension funds (with full capitalisation), but only 38 per cent of collective and common pension schemes. The majority of these are in the range between 105 and 115 per cent. The average for pension funds is 119.3 per cent, and 114.4 per cent for CCPIs.

It is gratifying to note that only one pension fund was reported to be underfunded, and none from the CCPI sector. In the previous year, this still affected 5 per cent of all funds in the two categories.

Chart D-5: Distribution of coverage ratios of company pension funds and collective and common pension schemes

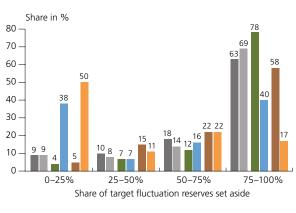


On a positive note, none of the pension funds of private-sector employers are underfunded, neither company pension funds nor collective and common pension schemes. Last year, the respective figures were 13 per cent of CCPIs and 2 per cent of pension funds.

Above all, it should be emphasised that more than two thirds of the funds of private-sector employers have achieved a coverage ratio of over 115 per cent, while the figure for the collective and common pension schemes of private-sector employers is 42 per cent. This is likewise a remarkable figure which has never been achieved before. However, their lower technical interest rates must be taken into account here too, which makes a direct comparison impossible.

#### 2 Fluctuation reserves

#### Chart D-6: Share of target fluctuation reserves set aside



- All pension funds 2019
- All pension funds 2020
- PRE pension funds, 2020
- PSE pension funds, 2020
- PRE CCPIs, 2020
- PSE CCPIs, 2020

At 69 per cent, more than two thirds of all pension funds have built up at least 75 per cent of their target fluctuation reserves. This means that the funding situation has improved enormously since 2018. At that time the figure was only 27 per cent, while by the end of 2019, it had already reached 63 per cent.

In the case of pension funds run by private-sector employers, the figure is as high as 78 (72) per cent. The situation regarding private collective and common pension schemes is also encouraging at 58 per cent.

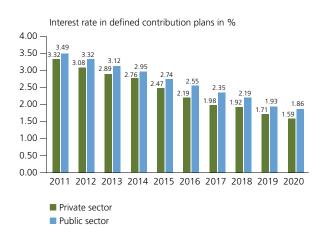
Collective and common pension schemes may only grant improvements to benefits under certain conditions if the fluctuation reserves have not been fully accrued (Art. 46 (1) BVV2).

Pursuant to Art. 46 BVV2, any interest return on retirement assets in excess of 2.0 per cent is deemed to be an improvement in benefits until further notice. The supervisory authority has dispensed with the fund-specific technical interest rate as an upper limit which was previously applied in order to prevent collective and common pension schemes, which have already set more conservative technical parameters, from being disadvantaged.

### E Technical interest rate and interest return

#### 1 Technical interest rate – status and change

Chart E-1: Change in the average technical interest rate in defined contribution plans since 2011

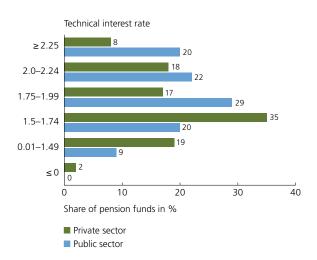


The ongoing reduction in technical interest rates, which has now been going on for many years, continued in the year under review. Both private and public funds have had technical interest rates below 2 per cent since the previous year. There is no end in sight to this trend, although the rate of decline appears to be slowing somewhat. In the private sector, the average reduction is 0.12 (0.21) percentage points, while in the public sector it is 0.07 (0.26).

The difference between the two sectors has widened again slightly in 2020 from 0.22 to 0.27 percentage points. Public-sector funds will therefore continue to lag behind, as is customary, although it should be noted with regard to both actuarial and investment requirements that the two are largely equal and no objective justification for the difference can be discerned.

For the time being, the biometric and market-related developments behind the chart suggest that this trend will continue. Technical interest rates will continue to be lowered, albeit to a reduced extent. Many insurance companies already apply very low technical interest rates – barring completely unexpected circumstances, it is hardly expedient to make further reductions. On the other hand, many pension funds still have some catching up to do in this respect, and this will continue to be reflected in the averages.

Chart E-2: Distribution of technical interest rates in pension funds in defined contribution plans

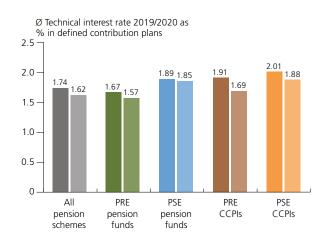


The most commonly cited value for the technical interest rate used by private-sector funds is between 1.5 and 1.74 per cent, while for public-sector funds it is between 1.75 and 1.99 per cent, which is also reflected in the average figures as in Chart E-1.

We still find 8 per cent of private-sector funds and 20 per cent of public-sector funds using the highest values above 2.25 per cent. Conversely, 19 per cent of private-sector funds already report values of less than 1.5 per cent compared to only 9 per cent of public-sector funds.

In addition, the figures for the technical interest rates for the active employees in the defined benefit plan are given here. The values in per cent are: mean 2.56; median 2.50; minimum 1.0; maximum 4.50.

Chart E-3: Technical interest rates by pension fund category with defined contribution plans

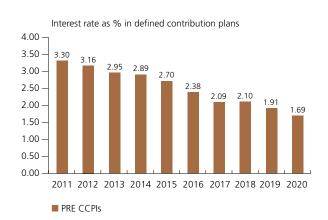


The technical interest rates of all participating pension funds with defined contribution plans fell from 1.74 per cent to 1.62 per cent compared to the previous year. As expected, the lowest figures come from the funds of private-sector employers at 1.57 (1.67) per cent.

Private-sector collective and common pension schemes, to which the supervisor pays special attention, are not far behind. Overall, they stand at 1.69 (1.91) per cent. If the competing pension funds are also filtered out (the criterion is the reported advertising and/or brokerage costs), the result is 1.81 per cent.

This suggests that CCPIs are not taking excessive risks despite market and competitive pressures. This is also confirmed in the case of the closely related conversion rates.

Chart E-4: Change in technical interest rate for CCPIs with private employers



Since the technical interest rates of the collective and common pension schemes are closely monitored by the supervisory authorities, the data and their development over the last ten years are again given in detail here. The marked reduction by 0.22 percentage points from 1.91 to 1.69 per cent in the year under review is evident. This significantly reduced the gap to the average of all private-sector pension funds (1.57 per cent).

If the competing CCPIs are looked at separately as in Chart E-3, the result is a reduction from 3.50 to 1.81 per cent since 2009.

#### 2 Interest return on retirement assets

Chart E-5: Distribution of interest return on retirement assets in 2020 by pension fund category

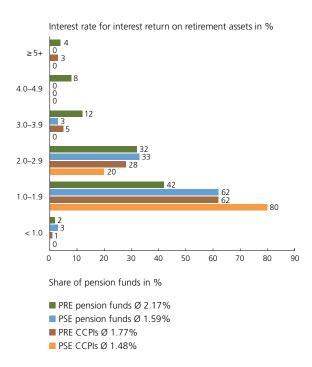
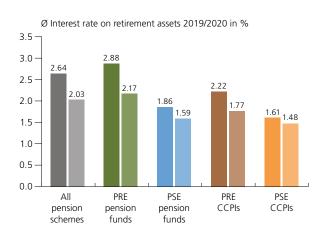


Chart E-5 shows the distribution of interest credited by pension funds to retirement assets. The values range from less than 1 per cent to more than 5 per cent.

One of the much-discussed aspects of occupational pension provision is that the resulting pension can be quite large compared to the money paid in depending on the type and the individual fund. The details of it may vary from year to year, but certain principles with very different returns for insured members are an inherent part of the system.

The minimum interest rate for the year under review was 1 per cent, and lower values were only used in individual cases with special justification. In the majority of cases, the interest rate was between 1 and 1.9 per cent. Interest was paid at the minimum rate of 1 per cent by 24 per cent of the pension funds of private-sector employers and 28 per cent of public-sector funds.

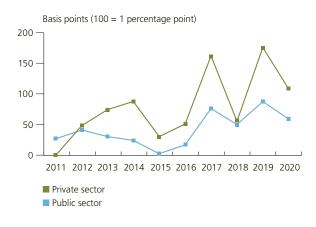
Chart E-6: Interest return on retirement assets



With an average performance of 3.97 per cent, 2020 saw a significantly lower interest return than was permitted in the previous year. For all funds, the amount fell from 2.64 to 2.03 per cent. Private-sector funds achieved higher values than public-sector funds, with CCPIs falling in between.

The differences in interest returns between public funds with and without full capitalisation are very clear. Funds that are fully capitalised have an average interest return of 1.46 per cent, with a median of 1.50 per cent. The median for funds with partial capitalisation is 1.88 per cent and the mean 1.86 per cent. The interest return is therefore generally higher for partially capitalised funds. The maximum interest return for partially capitalised funds is a remarkable 3.25 per cent.

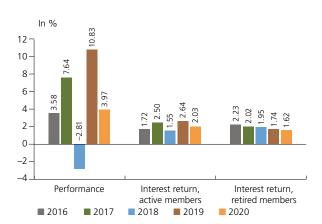
Chart E-7: Difference between the average interest return on retirement assets and the BVG minimum interest rate by legal form since 2011



The difference between the average interest return on retirement assets and the BVG minimum interest rate differentiated between private-sector and public-sector funds, expressed here in basis points, follows the same pattern for the two categories of funds, with the public-sector funds showing a steadier trend and generally a smaller difference.

The interest return in private pension funds over the course of ten years was on average 79 basis points higher than the BVG minimum rate. This equivalent difference for public-sector funds is 42 basis points.

Chart E-8: Interest return and performance



It is often difficult for outsiders to understand the significant difference between the performance reported and the interest return granted. This repeatedly gives rise to discussions with a corresponding demand for increased payouts, or the accusation that the funds are hoarding excessive amounts of reserves out of an exaggerated need for security.

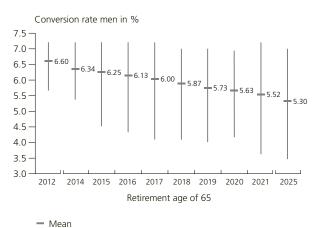
The chart makes the difference visually clear. In this regard, it must be observed for example that a positive interest return was granted for 2018 despite investment losses, which implies corresponding reserves. For the majority of the funds, the necessary formation of fluctuation reserves has only recently reached a sufficient level from an actuarial point of view. Also worthy of mention here are the excessive conversion rates, including the grossly excessive minimum conversion rate, which make it necessary to finance pension losses and are at the expense of active employees.

The development of interest returns for active employees and pensioners is revealing. While the interest return on active members' retirement assets is influenced by the fluctuations in investment income, the interest return on pensioners' capital reflects the declining technical interest rates. It has fallen from around 2.2 per cent to 1.6 per cent since 2016, which is a significant drop in such a short period of time.

## F Conversion rate and other actuarial metrics

#### 1 Conversion rate

#### Chart F-1: Change in conversion rate



In parallel with the reduction in technical interest rates, the conversion rate based on these rates has also been falling for years, usually by around 0.1 percentage point per year. The figure for the current year is 5.52 per cent, with values ranging from 3.60 to 7.20 per cent. As a reminder, the current BVG reform (BVG 21) only envisages a reduction in the minimum conversion rate from 6.8 per cent to 6 per cent as proposed by the Federal Council, with a transition period of ten years!

The question about the expected rate for 2025 gave a result of 5.30 per cent, which is an average of strongly divergent figures between 3.45 and 7.00 per cent.

A conversion rate that is one percentage point lower at 5.30 per cent without any compensatory measures results in an average loss for pensions of around 16 per cent.

Table F-1: Conversion rate all-inclusive pensions for men and women

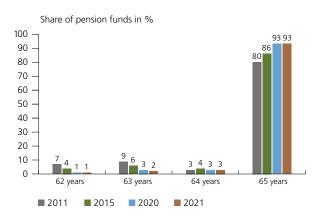
Gender	Reference		Maximum	Mean	Median	# PF
	year	Minimum				
Rate for men at retirement age 65						
(defined contribution plans)	2021	3.60%	7.20%	5.52%	5.48%	446
Rate for women at retirement age 64						
(defined contribution plans)	2021	3.60%	7.20%	5.46%	5.40%	445

The credit principle allows all-inclusive pension funds that insure mandatory and supplementary benefits together to reduce their conversion rates to significantly below the minimum conversion rate, provided that the statutory minimum benefits are guaranteed overall.

This mechanism also underlies the established current median of 5.48 (5.50) per cent for men in all-inclusive defined contribution plans, although the statutory minimum rate has been unchanged since 2005 at 6.8 per cent. For women, the value at a retirement age of 64 is 5.40 (5.50) per cent.

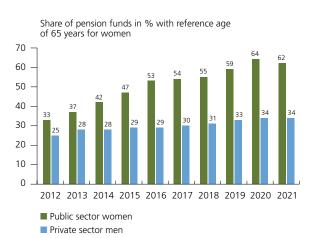
#### 2 Regular and effective retirement age

Chart F-2: Change in regular retirement age (reference age) for men



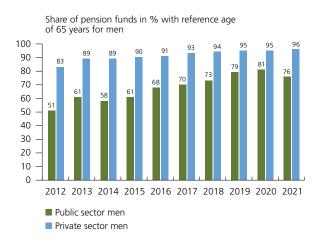
Changes in the regular retirement age seem to have come to a halt, at least for the time being. While there has been a marked increase towards age 65 over the past decade, the current figure of 93 per cent is likely to be the point at which most pension funds will no longer have any reason to change their regulations in this regard without a change in the legal requirements relating to the AHV.

Chart F-3: Retirement age 65 for women



The figures relating to the prevailing retirement age for women in pension funds as of 2021, which saw a decline from 64 to 62 years, come as a surprise after a continuous increase was recorded in previous years for both private- and public-sector funds. The decline can be explained by changes in the sample, since it cannot be assumed that any regulations were changed which would account for this development.

Chart F-4: Retirement age 65 for men

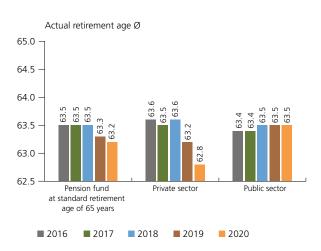


While a much higher proportion of women with a reference age of 65 can be observed in the case of public-sector pension funds, the opposite is the case for men. Significantly fewer public-sector funds stipulate a reference age of 65 for men than private-sector funds.

The eye-catching difference between the two categories among private- and public-sector pension funds is practically unchanged. It is possible that the smaller difference between men and women found in public-sector pension funds is due to equality criteria being more strictly applied.

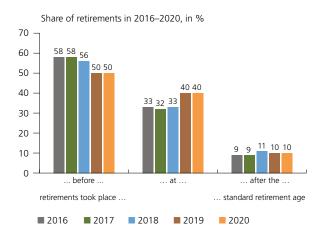
The slight decrease for both men and women is due to the differing composition of the small sample. For example, last year there were 63 pension funds and this year there are 55, which is considerably fewer. The smaller the sample, the greater the statistical uncertainty.

Chart F-5: Change in actual retirement age for men



The question of the effective (not statutory) average retirement age for private-sector pension funds showed a decline from 63.2 to 62.8 years in 2020, which is also reflected in the result for pension funds as a whole. In contrast, the retirement age for public-sector funds remained unchanged at 63.5 years.

Chart F-6: Change in timing of retirement

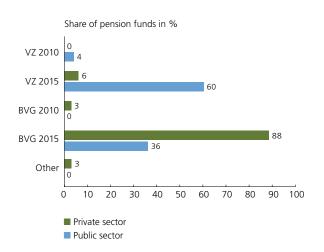


If a distinction is made according to whether retirement is taken before, at or after the statutory retirement age, there are no changes compared to the previous year. Half of those in work take early retirement, 40 per cent choose the regular retirement age and the remaining 10 per cent work longer.

The figure for 2020 is based on 26,486 retired people.

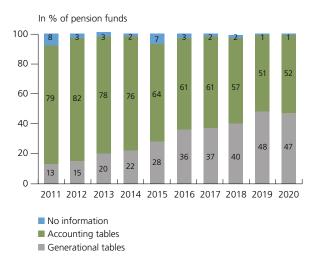
#### 3 Technical basis

Chart F-7: Applied principles by legal form



Two competing technical principles are available to pension funds, actuarial charts and BVG. The difference between the two is that actuarial charts are based on data from public-sector funds and BVG on data from private-sector funds. Accordingly, actuarial principles are mainly used by public-sector pension funds, while private-sector pension funds almost exclusively use the BVG data.

Chart F-8: Use of periodic and generational tables



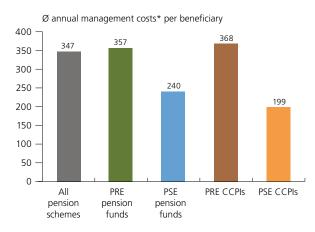
A year ago, it was stated here that generational tables would probably be used by a majority of funds in the next survey. This did not come to pass, although the slight drop from 48 to 47 per cent can be explained by changes in the survey sample. However, the halt in the trend that this shows is surprising.

The funding situation of most pension funds, which is currently excellent, could possibly accelerate the change even further, since it is associated with a decline in nominal coverage ratios of one to two percentage points, which should generally be relatively easy to absorb at present.

## G Management and investment costs

#### 1 General management costs

Chart G-1: Distribution of annual management costs per beneficiary by legal form



<sup>\*</sup> General management, marketing, agent and broker activity, audit / experts / supervision

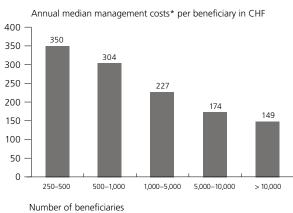
The management costs per beneficiary have developed differently in the past year for the categories of pension funds examined. Averaged across all funds, there was an increase from CHF 335 to CHF 347. In private-sector funds, costs rose from CHF 336 to an average of CHF 357, while in public-sector funds they fell from CHF 253 to CHF 240.

There was also an increase among private-sector collective and common pension schemes from CHF 354 to CHF 368, while public-sector CCPIs saw a decrease from CHF 210 to CHF 199.

The main reason for the differences between the different categories is the average size of the funds in relation to the number of insured members (active employees and pensioners). For CCPIs, the special structure with many affiliated employers and mostly few employees also naturally plays an important role.

The public-sector pension funds insure an average of 12,155 beneficiaries. Pension funds in the private sector on the other hand have 2,936 beneficiaries. The corresponding figure for private-sector CCPIs is 21,261, while those in the public sector insure a total of 18,222 beneficiaries.

Chart G-2: Management costs of autonomous pension funds without collective and common pension schemes



effective pension funds are those with 10,000 or more beneficiaries, which account for CHF 149 per head, less than half that of the smaller funds.

The correlation between management costs and

the number of beneficiaries of a pension fund is

obvious. The connection is shown very clearly in the

chart. Autonomous pension funds with fewer than

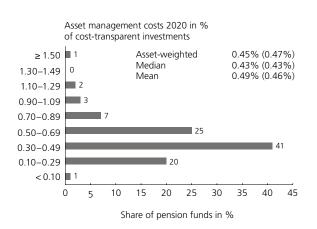
500 insured members have the highest manage-

ment costs, averaging CHF 350. The most cost-

\* General management, marketing, agent and broker activity, audit/experts/supervision

#### 2 Asset management costs

Chart G-3: Distribution of asset management costs 2020



On an asset-weighted basis, the average asset management costs as a percentage of cost-transparent investments decreased again last year from 0.47 to 0.45 per cent. The median remained unchanged at 0.43 per cent and the simple mean increased from 0.46 to 0.49 per cent. It can be concluded from this that the large, wealthy funds were able to reduce their costs, while the costs of the medium-sized and smaller pension funds increased somewhat.

In fact, the mean for pension funds under CHF 500 million in assets is 0.50 (asset-weighted 0.42) per cent. Their performance is 3.90 per cent. The average value of the funds with larger investments is 0.47 (asset-weighted 0.46) per cent at a performance of 4.02 per cent.

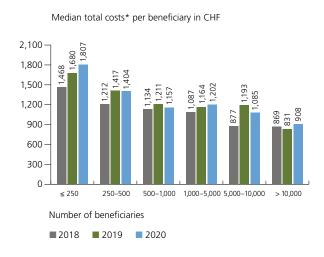
For 41 per cent of the pension funds surveyed, the costs are between 0.30 and 0.49 per cent. Lower costs were reported by 21 per cent of survey respondents. This includes the large funds with several thousand beneficiaries in particular. A further 25 per cent bear costs of between 0.50 and 0.69 per cent, while only 13 per cent of respondents report higher asset management costs.

Unlike the management costs, asset management costs are not determined by size alone but also by the investment strategy chosen. However, the expectation that higher asset management costs would lead to a better performance is not borne out by the survey.

Funds with costs below 0.43 per cent (median) of investments recorded a performance of 4.18 per cent in 2020, while those with higher asset management costs recorded a performance of 3.79 per cent. The biggest differences in asset allocation between these funds lie in the 5.1 percentage point lower bond allocation and the 5.3 percentage point higher share of alternative investments.

#### 3 Total management costs

#### Chart G-4: Total costs per beneficiary



The change in the total costs per beneficiary (general management plus asset management costs) shows a mixed picture for the last three years.

The costs for the smallest funds increased significantly again from CHF 1,680 to CHF 1,807. The figures vary little in the different groups classified according to the number of beneficiaries. It is noticeable how in contrast to the management costs, the total costs only decrease slightly above around 1,000 insured members. The lowest total costs are naturally achieved by funds with 10,000 or more beneficiaries and average total costs of around CHF 900.

# Survey participants

	- CONNICO
Aargauische Pensionskasse	Fondation de prévoyance CONINCO
Agrisano Pencas	Fondation de prévoyance de la métallurgie du bâtiment
ALDI SUISSE Pensionskasse	Fondation de Prévoyance des Paroisses et Institutions Catholiques
ALRIVO Pension Foundation	Fondation de prévoyance du Groupe Assura
Kalkfabrik Netstal AG Old-Age, Disability and Survivors' Fund	FONDATION DE PREVOYANCE DU GROUPE BNP PARIBAS EN SUISSE
Alvoso Pension Fund	Fondation de prévoyance en faveur du personnel de Sanofi SA
AMAG Group Pension Fund	et des sociétés connexes
Ambassador Stiftung for Occupational Pension Plans	Fondation de prévoyance AROMED
Bucher Switzerland Employee Pension Fund	Fondation de prévoyance Romande Energie
Ascaro Pension Foundation	Fonds de prévoyance de PROTECTAS SA et sociétés apparentées
ASGA Pension Fund Cooperative	Fonds de prévoyance des garages vaudois (FP-Garages)
Avanea Pension Fund	Fonds de prévoyance du Centre Patronal
avenirplus Collective Foundation	Inter-Professional Pension Fund
Baloise Collective Foundation for Non-Mandatory Occupational	Johann Müller AG Hardship Fund
Pension Plans	FUTURA Pension Foundation
Baloise Collective Foundation for Mandatory Occupational	Galenica Pension Fund
Pension Plans	GEBA, cooperative for collective occupational and retirement
Baumer Pension Foundation	provisions
Bernese Teachers' Insurance Fund BLVK	Geberit Group Community Foundation
Biral Pension Fund Foundation	Zellweger Luwa AG Community Foundation
Schroder & Co Bank AG BVG	Commercial pension fund
Swiss Life Collective BVG Foundation	Pension Fund of the Canton of Glarus
SV Group BVG Foundation	Hess-Honegger Employee Benefits Foundation for the Embru Works
Caisse de pension de la Société suisse de pharmacie	HIAG Pension Fund
International Committee of the Red Cross Pension Fund	HOTELA Pension Fund
Caisse de Pension Merck Serono	Implenia Pension Fund
Caisse de pensions de Bobst Mex SA	JTI Swiss Pension Fund
Caisse de Pensions de la BCV	Cantonal Insurance Fund of the Canton of Appenzell I.Rh.
Pension Fund of the Municipality of Lausanne (CPCL)	Leica Pension Fund
Pension Fund of the Republic and Canton of Jura	Loyalis BVG Collective Foundation
Pension Fund of the Council of State of Vaud	Lucerne Pension Fund (LUPK)
Swiss Center for Electronics and Microtechnology – Research and	Marsh & McLennan Pension Fund
Development Pension Fund	Medpension vsao asmac
Caisse de pensions du Groupe Eldora	Metron Foundation for Employee Pensions
Pension Fund of Employees of the City of Carouge	Mettler-Toledo Pension Fund
Caisse de pensions du TCS	MIKRON Pension Fund
Philip Morris in Switzerland Pension Fund	MPK Migros Pension Fund
Caisse de prévoyance de la Construction	Securitas Group Pension and Savings Fund
Provident Fund of Employees of the Cantonal Bank of Fribourg	APG/SGA Pension Fund
Provident Fund of Employees of the City of Fribourg	AR Pension Fund
Caisse de prévoyance en fav.du pers. ouvrier Induni & Cie SA	Pension Fund of Basel-City
et des sociétés affililées	- Bernese Notary Office and Law Office Pension Fund
Caisse Intercommunale de Pensions	- BonAssistus Pension Fund
CAP Provident Fund	- Bosch Switzerland Pension Fund
CAPREVI, PREVOYANCE CATERPILLAR	
Cassa Pensioni di Lugano	BRUGG Pension Fund
CIEPP Caisse Inter-Entreprises de Prévoyance Professionnelle	Bucherer AG Pension Fund
Clariant Pension Foundation	Bühler AG Uzwil Pension Fund
comPlan	Caritas Pension Fund
CoOpera Collective Foundation PUK	Cembra Pension Fund
CPEG - Provident Fund of the City of Geneva	- CH Media Pension Fund
CPVAL	- Coop CPV/CAP Pension Fund
EMMI PENSION FOUNDATION	Pension Fund of 3M Companies in Switzerland
E.I.I.I. E.I.SIGIT I GOILD/ (HOI)	-

ALSO Pension Fund	Weidmann Companies Pension Fund
Antalis AG Pension Fund	Zürcher Kantonalbank Pension Fund
Bank Vontobel AG Pension Fund	Zurich Insurance Group Pension Fund
Basler Kantonalbank Pension Fund	PUBLICA Pension Fund
Baumann Koelliker Gruppe Pension Fund	Pension Fund of the Canton of Nidwalden
BEKB   BCBE Pension Fund	Pension Fund of the Canton of Schwyz
Berner Versicherung Group Pension Fund	Zurich Opera House Pension Fund
Bernische Kraftwerke Pension Fund	Hospital Region Oberaargau Pension Fund
C&A Group Pension Fund	SVTI Pension Fund
CONCORDIA Swiss Health and Accident Insurance AG Pension Fund	dormakaba Pension Fund
Credit Suisse Group (Switzerland) Pension Fund	Eternit Pension Fund
Dätwyler Holding AG Pension Fund	Evangelisches Gemeinschaftswerk Pension Fund
Pension Fund of the Diocese of St. Gallen	fenaco Pension Fund
Former Asklia Group Pension Fund	Freelance Pension Fund of the Syndicom trade union
Electrolux AG Pension Fund	Frutiger Pension Fund
Elektro-Material AG Pension Fund	AXA Switzerland Pension Fund
Emil Frey Group Pension Fund	General Electric Switzerland Pension Fund
F. Hoffmann-La Roche AG Pension Fund	Pension Fund of the Canton of Graubünden
Pension Fund of the Municipality of Emmen	HACO Pension Fund
Pension Fund of the Municipality of St. Moritz	Heineken Switzerland Pension Fund
Generali Versicherungen Pension Fund	Hirslanden Pension Fund
GWF MessSysteme AG Pension Fund	JUMBO Pension Fund
Helvetia Versicherungen Pension Fund	JURA Pension Fund
HG COMMERCIALE Pension Fund	Pension Fund of the Canton of Solothurn
HOCHDORF Group Pension Fund	LANDI Pension Fund
ISS Switzerland Pension Fund	Manor Pension Fund
Julius Baer Group Pension Fund	Meier Tobler Pension Fund
Lienhard Office Group Pension Fund	Merck & Cie Pension Fund
Loeb AG Pension Fund	Plüss-Staufer Pension Fund
Luzerner Kantonalbank Pension Fund	Post Office Pension Fund
OBT AG Pension Fund	Rheinmetall Pension Fund
Oettinger Davidoff AG Pension Fund	Pension Fund of the Roman Catholic Church of the Canton of Lucerne
Orior Group Pension Fund	SBB Pension Fund
Pilatus Aircraft Ltd Pension Fund	Pension Fund of Schaffhausen
PricewaterhouseCoopers Pension Fund	Schweizer Zucker Pension Fund
Pro Infirmis Pension Fund	Sefar AG Pension Fund
Rhaetian Railway Pension Fund	SHP Pension Fund
Sanitas Troesch Group Pension Fund	SIB Pension Fund
Swiss Paraplegic Group Nottwil Pension Fund	Siegfried Pension Fund
Schweizerische Hagel-Versicherungs-Gesellschaft Pension Fund	Sika Pension Fund
Siemens Companies in Switzerland Pension Fund	SPS and Jelmoli Pension Fund
SKF Switzerland Pension Fund	SRG SSR Pension Fund
Pension Fund of the City of Aarau	Pension Fund of the City of Chur
Pension Fund of the City of Amriswil	Pension Fund of the City of Lucerne
Pension Fund of the City of Arbon	Pension Fund of the City of Zurich (PKZH)
Pension Fund of the City of Dübendorf	Swiss Dairy Food AG Pension Fund
Pension Fund of the City of Olten	Swiss Re Pension Fund
Pension Fund of the City of Weinfelden	Syngenta Pension Fund
Stahl Gerlafingen AG Pension Fund	Transgourmet Schweiz AG Pension Fund
Pension Fund of the Technical Associations SIA STV BSA FSAI USIC	TRUMPF Schweiz AG Pension Fund
T-Systems Schweiz AG Pension Fund	Unilever Switzerland Pension Fund
V-ZUG AG Pension Fund	Pension Fund of the Canton of Uri

Pension Fund of the Organisation of Health Insurance Providers	SCHURTER AG Employee Benefits Foundation		
WWZ Pension Fund	Schweizer Salinen AG Employee Benefits Foundation		
Züriwerk Pension Fund	Siegwerk Switzerland AG Employee Benefits Foundation		
Superannuation Fund of Ausgleichskasse Handel Schweiz	Sigma Aldrich Group Employee Benefit Foundation		
Larag AG Superannuation Fund	SV Group Employee Benefits Foundation		
Superannuation Fund of the REHAU companies	Thurbo AG Employee Benefits Foundation		
Personalstiftung Création Baumann AG	Wander AG Employee Benefits Foundation		
Personal-Stiftung der Leder Locher AG	Ypsomed Group Employee Benefits Foundation		
Personalstiftung der Rothschild Bank AG	Swiss Farmers' Union Employee Benefits Foundation		
Personalstiftung der Wyss Samen und Pflanzen AG	Allianz Suisse Employee Benefits Foundation		
Personalstiftung Transporta	Allianz Suisse General Agencies Employee Benefits Foundation		
Personalversicherung der NCR Schweiz	Ituma Employee Benefits Foundation		
Personalversicherungskasse der Evangref. Kirche BS	RESPIRA Employee Benefits Foundation		
Personalvorsorge Aare Seeland Mobil AG	UIAG Employee Benefits Foundation		
Personalvorsorge Swissport	Glockenhaus Foundation Employee Benefit Plan		
Personalvorsorgeeinrichtung der Kibag	Perspectiva Collective Foundation for Occupational Pension Plans		
Personalvorsorgeeinrichtung der PAGO AG	Pension Fund of the Plasterers' and Painters' Cooperative in Zurich		
Personalvorsorge-Einrichtung Ford	and Surrounding Area		
Pension Fund of the City of Berne	Lyreco Switzerland AG Pension Fund		
Personalvorsorgekasse Obwalden PVO	PK Keramik Laufen		
BELIMO Automation AG Employee Benefits Foundation	PKE Energy Pension Foundation		
Employee Benefits Foundation	PKG Pension Fund		
Employee Benefits Foundation	Previs Pension Fund		
Albers Group Employee Benefits Foundation	previva, fonds de prévoyance des professionnels du travail social		
Angenstein Estech AG Employee Benefits Foundation	prévoyance.ne Caisse de pensions de la fonction publique		
Arthur Frey AG Employee Benefits Foundation	du canton de Neuchâtel		
PAT-BVG Pension Fund for Doctors and Veterinarians	Profelia Fondation de prévoyance		
Employee Benefits Foundation of Basler & Hofmann AG,	PROMEA Pension Fund		
engineers and planners	Proparis Pension Foundation Gewerbe Schweiz		
Büchi Labortechnik AG Employee Benefits Foundation	ProPublic Vorsorge Genossenschaft		
Employee Benefits Foundation of the Municipality of Berne	PROSPERITA Foundation for Occupational Pension Plans		
Canon (Schweiz) AG Employee Benefits Foundation	Raiffeisen Pension Fund Cooperative		
CSS Versicherung Employee Benefits Foundation	Rivora Collective Foundation		
Electrowatt Engineering Employee Benefits Foundation	RMF Pension Foundation		
Feldschlösschen Beverage Group Employee Benefits Foundation	Vita Collective Foundation		
Festo AG Employee Benefits Foundation	Schindler Pension Fund		
Gericke AG Employee Benefits Foundation	SECUNDA Collective Foundation		
Graubündner Kantonalbank Employee Benefits Foundation	SFS Pension Fund		
Heizmann AG Employee Benefits Foundation	SKMU Collective Foundation BVG of SMEs		
Helsana Versicherungen AG Employee Benefits Foundation	Spida Employee Benefits Foundation		
Jungfrau Railways Employee Benefits Foundation	Pension Fund of St. Gallen		
Kalaidos Education Group Switzerland Employee Benefits Foundation	Pension Fund of the Municipality of Thun		
Kambly Group Employee Benefits Foundation	Stiftung Abendrot		
Employee Benefits Foundation of KELLER AG for pressure	Stiftung Auffangeinrichtung BVG		
measurement technology	Stiftung für die Zusatzvorsorge der Angestellten der Allianz Suisse		
Lantal Textiles Employee Benefits Foundation	Stiftung Pensionskasse der Anliker AG Bauunternehmung		
LGT Group (Switzerland) Employee Benefits Foundation	Sulzer Vorsorgeeinrichtung		
Liechtensteinische Landesbank Employee Benefits Foundation	Suprema		
Netstal-Maschinen AG Employee Benefits Foundation	SWISS Vorsorgestiftung für das Bodenpersonal		
Pfizer AG Employee Benefits Foundation	SWISSBROKE Pension Foundation		
Planzer Transport AG Employee Benefits Foundation	Swisscanto Collective Foundation of the Cantonal Banks		
Ringele AG Employee Benefits Foundation	Swisscanto Supra Collective Foundation of the Cantonal Banks		
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Trigona Collective Foundation for Occupational Pension Plans TRIKOLON Collective Foundation for Occupational Pension Plans UTA Collective Foundation BVG Valora Pension Fund (VPK) Insurance scheme for SWISSAIR flight personnel SWISSLOS insurance fund
UTA Collective Foundation BVG  Valora Pension Fund (VPK)  Insurance scheme for SWISSAIR flight personnel
Valora Pension Fund (VPK) Insurance scheme for SWISSAIR flight personnel
Insurance scheme for SWISSAIR flight personnel
SMISSLOS incurança fund
SWISSEOS IIISUIAIICE IUIIU
Veska Pension Fund
vitems
Pension Fund of BDO AG, Zurich
Pension Fund of St. Galler Kantonalbank
STUTZ Group Pension Fund
Suva Pension Fund
Basler Versicherung AG Pension Foundation
PanGas Pension Foundation
Pension Foundation of Pneu Egger AG, Aarau
Schroder & Co Bank AG Pension Foundation
Vorsorgestiftung der Verbände der Maschinenindustrie
Pension Foundation of Spitalzentrum Biel
Pension Foundation for Health and Social Affairs
Salvation Army Switzerland Pension Foundation
Pension Foundation of Ospelt Group
SMP Pension Foundation
Swiss Life Personal Pension Foundation
Swiss Life Personal Pension Foundation Supplementary Insurance
vorsorgestiftung vsao
VSM Collective Foundation for Medical Personnel
VSMplus Collective Foundation for Employee Pensions
Pension Fund of Zug
Orior Group Supplementary Fund
Dätwyler Group Supplementary Pension Fund

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