

MS16/1.3: annex 4

Retirement Outcomes Review

Final report: annex 4: Data collection and analysis

June 2018

1. In this annex we set out the data used in the Retirement Outcomes Review and describe the methodologies used for our analysis.
2. It is structured as follows.
 - First, we provide an overview of the data we have used to conduct our analysis.
 - Second, we provide further information on our methodology for the analysis presented in chapter 3 on consumer investment choices. We also provide an overview of some additional analysis we conducted on the effect of cash defaults.
 - Finally, we provide further information on our methodology for the analysis presented in chapter 4 on drawdown charges. We also provide more detail of the analysis we conducted comparing charges between different groups.
3. We have been restricted in what we can present from our analysis due to the need to ensure that confidential information cannot be identified. Therefore, we present analysis at an aggregate level where there is a potential risk of revealing confidential information relating to a provider.

Data

4. In this section we provide more detail on the data that we used throughout our report. These include:
 - FCA half-yearly retirement income market data (RIMD)
 - a bespoke drawdown information request issued as part of ROR: consumer charges and investment data from a sample of life insurers and platform SIPP providers
 - performance measures and asset descriptors for consumer investments from Morningstar
5. In the sections below we describe each of these datasets. For our information request, which provides the data for most of the analysis in the report, we also present some summary statistics and discuss some of the challenges encountered in collecting the data.

Half-yearly retirement income market data

6. The data collection is part of the commitment we made to monitor and assess the impact of the pension reforms in our Retirement income market study (RIMS).¹
7. We used data covering the period 1st October 2015 – 30th September 2017 to inform our market overview and provide an update on any developments since we published our interim report in June 2017. These were the most recent data available to us at the time of writing the report.
8. We also used the retirement income market data to draw a sample of providers to issue our information request to and to cross check some of the data we received

¹ www.fca.org.uk/publications/market-studies/retirement-income-market-study. The latest data bulletin of this data can be found here: www.fca.org.uk/publication/data/data-bulletin-issue-12.pdf

from the providers. Data on sales of annuities and drawdown are also split by type of consumer (i.e. consumers taking and not taking advice; new/existing consumers), allowing some comparisons with the provider data.

9. The RIMD submission period and format was changed between writing the interim and final reports, from quarterly to half yearly. In some instances this meant that we had to aggregate data to ensure consistency across the different formats, but otherwise this had no impact on our analysis.
10. RIMD is provided by 54 provider groups which comprise 94 retirement and pension providers and 95% of pension assets under administration in the UK. This includes any DC occupational schemes provided by these providers and therefore includes some trust-based plans in addition to most of the UK's contract-based plans.²

Our information request

11. In this section we discuss our drawdown information request setting out:
 - the data we collected
 - the challenges we encountered in collecting and cleaning the data
 - an overview of the data including summary statistics

The data we collected

12. We collected data using a one-off information request which we sent to 8 flexi-access drawdown providers. We received 8 responses, but we have excluded one provider from most of our analysis as they have very few flexi-access drawdown consumers who did not take advice. One provider provided certain information on a sample of its consumers due to technical limitations.
13. Within our sample there were a mix of life insurers and platform SIPP providers. We requested both qualitative and quantitative information. The qualitative data focus on the strategies of providers and the quantitative information on consumer charges and investments. The responses were staggered in two tranches. This enabled us to begin our consumer survey using the first tranche of data, but allowed more time for providers to complete the larger parts of the request and ensure its quality. Before issuing the request, we piloted it with a small number of the providers and incorporated the comments we received.
14. We requested data on consumers who had moved into drawdown/activated a drawdown option over the period 1 May 2015 – 1 May 2017.
15. In order to reduce the burden on providers but ensure the representativeness of our data, we focussed the request on a subset of drawdown consumers. Our data covers consumers who:
 - Had a fully crystallised pot,³ so we have excluded consumers who are in phased drawdown or drip-feed drawdown.⁴ We chose to exclude these consumers as they

² The FCA only regulates contract-based pensions schemes. Trust-based pension schemes are regulated by The Pensions Regulator.

³ If a pot is fully crystallised then all parts of the plan have been moved into drawdown. Where not all of the pot is available yet in drawdown, we refer to this as partial crystallisation.

⁴ Phased drawdown and drip-feed drawdown are drawdown options available to consumers who want to partially crystallise.

would add complexity to our analysis and we felt this would not significantly affect its robustness. We also excluded consumers who had made additional contributions to their drawdown pot since moving into drawdown for similar reasons.

- Had an initial pot size equal to or larger than £10,000: this was largely to limit the size of the request. We felt it was unlikely that consumers with pots smaller than this would be using this as their main source of income and they are more likely to exhaust pots of this size quickly regardless of charges and investment choices.
- Were at least 55 years old: consumers under 55 have either inherited a product in drawdown or have been able to enter drawdown early due to exceptional circumstances (e.g. terminal illness) and so are not representative of the market as a whole.

Qualitative information

16. In addition to the data request, we asked each provider how they've operated their business since the introduction of pension freedoms. In particular we asked for written responses on:

- Their business strategy following pension freedoms, including:
 - Descriptions of their products.
 - Any relevant consumer segmentations or target markets.
 - How they decide on the level of charges paid by drawdown consumers.
 - Whether or not there are any factors that directly affect the charges paid by a given consumer (e.g. pot size, whether or not they took advice, whether they were a new or existing consumer).
- How they currently present investment choices to consumers not taking advice.
- Whether or not they require consumers not taking advice to make a conscious investment decision.
- Any tools offered to consumers in order to help with:
 - Retirement planning.
 - Investment choices when moving into drawdown.
 - Ongoing management of drawdown investments.
- A description of the steps a consumer would need to take in order to switch away from the product, including:
 - The likely time it would take.
 - Whether or not they'd need to sell and repurchase their investments.
 - Any charges incurred at the point a consumer decides to switch away. Where this varies between advised consumers and those that did not take advice, we asked for separate responses.

We used these responses throughout the report and, in particular, to inform our analysis of providers' choice architectures in chapter 3 and the analysis of barriers to switching in chapter 4.

Consumer level data

17. We wanted to investigate consumer behaviour around their investment decisions and the charges being paid. In order to do this, we requested detailed information from providers on all of their eligible drawdown customers.
18. In order to gain a deeper understanding of the associations between certain consumer behaviours and other characteristics, we also asked for data on several consumer characteristics. These data allow us to split the population according to their characteristics and make comparisons. Due to this, our data request can be broadly split into 3 sections: consumer and product characteristics, consumer investments, and consumer charges which can be further separated into aggregate revenue streams and customer level revenue information. Table 1 gives a detailed overview of the data that we requested.

Table 1: Overview of our drawdown information request

Type	Description
Consumer details and product use data	<ul style="list-style-type: none"> • Consumer information: contact details,⁵ date of birth, income, retirement savings, their employment status, whether or not they consulted Pension Wise, whether or not they were existing accumulation customers and whether or not they had transferred from another crystallised decumulation product.⁶ • Product information: the date the consumer entered drawdown, their initial pot size, whether or not they took a taxed/tax-free PCLS and its value, whether or not they took advice when entering drawdown, whether or not they made additional contributions after entering drawdown. • Withdrawal information: whether or not the consumer made withdrawals since entering drawdown, whether or not the consumer is making regular withdrawals, when they started taking regular withdrawals, the rate as a proportion of pot size that they withdrew at, whether or not they've changed their withdrawal rate, the total amount withdrawn, and how many (if any) ad-hoc withdrawals the consumer has made.
Charge data	<ul style="list-style-type: none"> • Revenue data: revenue data for each product in our sample, including the level at which the charge is levied, the amount of times over the period 1 May 2015 – 1 May 2017 the charge was paid, the amount in revenue raised by each charge over this period, and the amount in total raised by the product over this period. • Consumer charges data: the amount each consumer has paid in charges and the amount of times each consumer paid each charge over the course of our data request.

⁵ Consumer contact details were used solely to inform our commissioned consumer research. We did not contact any consumers directly ourselves and, in line with our responsibilities under the Data Protection Act 1998, deleted all consumer contact details as soon as they were passed to the consumer research agency.

⁶ We positioned the responses on income, savings and employment as optional as this information was rarely available from the providers in our sample.

Type	Description
Investment data	<ul style="list-style-type: none"> • Investments data: whether or not the consumer has changed their investments since entering drawdown, the total value of regular investments, the total value held in the consumer’s cash account, the total value held in property and remaining assets, whether or not the consumer used a discretionary fund manager, and where the consumer did not take advice, whether or not the consumer selected from a subset of the full range of funds. • Detailed information on each consumer’s 10 largest investments: International Securities Identification Numbers (ISIN), investment name, the value held in the investment, any annual fund charge associated with the investment, and any discounts applied to fund charges. We restricted to the 10 largest to keep the data manageable whilst still providing sufficient detail.

Morningstar data

19. Morningstar is an independent provider of investment research and analytics. It collects information in investment performance, such as returns and volatility and on investment characteristics, such as fund composition and asset class.
20. Using the ISINs for the investments held by consumers, we collected performance data from Morningstar on each consumer’s 10 largest investments. Where providers were not able to provide ISINs for certain investments, we sourced performance information from alternative sources such as Financial Express Trustnet or directly from the provider.
21. We collected information on returns, volatility and the Sharpe ratio⁷ across the last one, three and five years as available, information on the asset composition⁸ of each investment, and on various ratings provided by Morningstar.
22. Unfortunately, three and five year performance data were not available for all assets as many are relatively new. As a consequence of this, some funds had to be dropped from some parts of our analysis.

Challenges in collecting and cleaning the drawdown information request data

23. We faced several challenges in collecting, collating and cleaning the drawdown information request data.
24. The main challenges we encountered were:
 - One provider was not able to provide us with all of the information on charges that we asked for their full consumer population. We used the information that the provider gave us on consumer characteristics to request information on a sample of their consumers. We sampled primarily based on pot size for a mix of new and existing consumers and those who had taken advice and those that had not in order to achieve a sample that was representative.
 - Some providers had difficulties in identifying whether their consumers were new or existing to them when entering drawdown and could therefore not provide this

⁷ The Sharpe ratio of an asset is defined as the ratio of returns above the riskless rate and the standard deviation of the asset’s return. It is a measure of returns gained per unit of risk taken on compared to a riskless bond. A higher Sharpe ratio indicates a higher gain for the risk taken on.

⁸ By asset composition, we mean the percentage of the asset made up of cash, equity, bond and other investments, and whether or not the fund is a fund of funds.

information. Further, for some providers drawdown is an option within a product rather than a standalone product. There was therefore a question over the extent to which a consumer that opened a product in accumulation but entered drawdown shortly after should be considered a new or existing customer. In such circumstances, we decided to define consumers as new if they entered drawdown within a month of opening the product.

- Several providers were unable to provide some information on consumer characteristics such as employment status and income levels.
- In a minority of cases providers interpreted our instructions in ways that we did not expect, leading to inconsistencies across providers in our sample. Where we encountered this, we worked with providers to assure quality and consistency of data across the different providers in our sample and were able to remedy the majority of issues.

Matching of consumer survey data to our drawdown information request

25. We created a dataset linking the responses to the quantitative stage of our consumer survey and our data request. This allowed us to explore how consumers' responses to the survey related to the data given by their provider. We discuss our findings from this in chapter 3 of the final report.
26. We merged the two datasets using the unique combination of consumer identifier and product identifier for each provider. Even though NatCen's consumer survey dataset of responses did not contain product identifiers, we were able to match all consumers that had more than one product using the product's pot size.
27. Not all data were merged. Of the 1,005 consumers surveyed, 129 consumers did not agree to their data being linked when responding to the survey. Other consumers were removed from our provider data during our cleaning process. For example, if a consumer entered drawdown before the age of 55 or if they were in a partially crystallised fund they were not included in our final dataset. This affected a further 51 consumers, leaving 825.

Summary statistics from the data

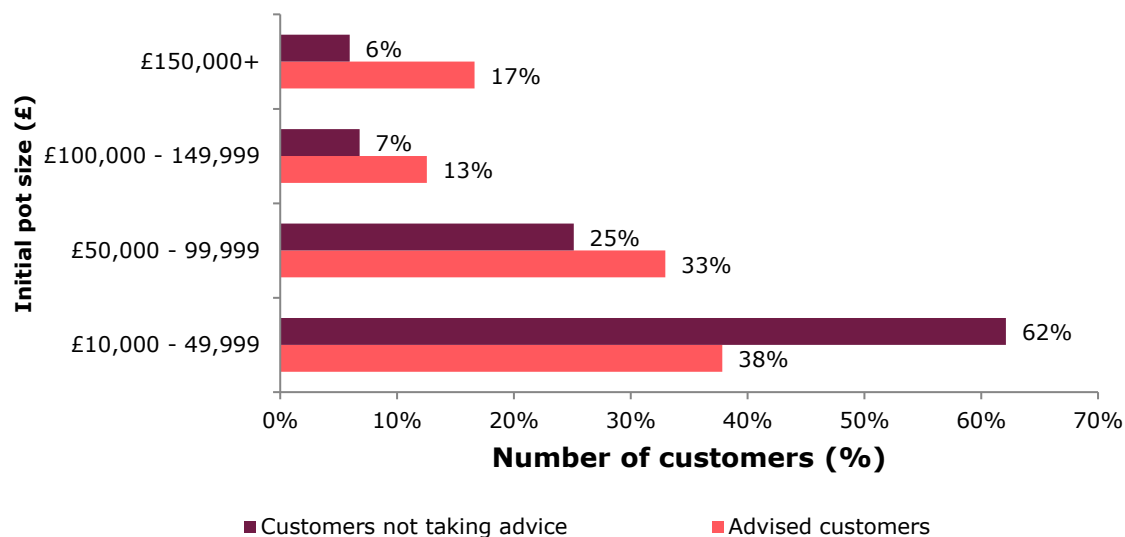
28. Our data comprised more than 89,000 individual drawdown plans. Over 60% of the consumers in our data took advice when moving into drawdown and 63% of consumers opted to move into drawdown with their current provider instead of switching to another.

Retirement pot size

29. The average initial pot size for all consumers moving into drawdown in our sample, which excluded pot sizes below £10,000, is £87,000, with the average consumer taking advice having a pot size of £105,000 and the average consumer not taking advice having a pot size of £60,000. In line with the ability to take 25% of their pot as tax-free cash, the average amount withdrawn as tax-free cash was £19,000 for consumers not taking advice and £27,000 for those consumers taking advice. As we

also found in our interim report,⁹ Figure 1 shows that consumers with larger pots are more likely to have taken advice.

Figure 1: Distribution of advised/non-advised consumers by pot size, 1 May 2015 – 1 May 2017



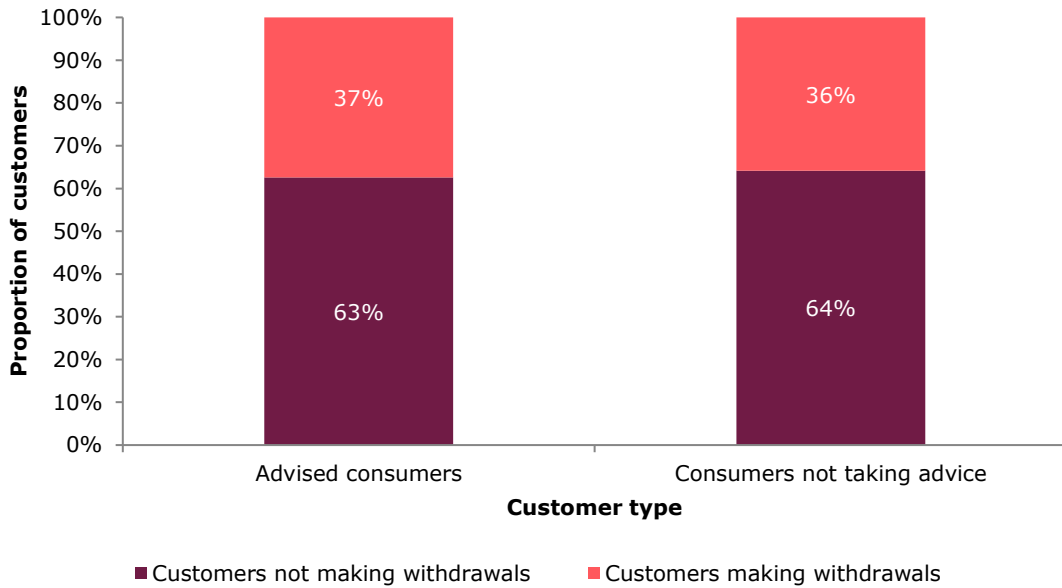
Source: FCA analysis of drawdown charges and investment choices collected from 7 providers.

Withdrawal activity

30. We found that, in our data, there is little evidence of consumers who take advice being more likely to have made withdrawals than consumers who do not. Figure 2 shows that roughly 63% of consumers taking and not taking advice made withdrawals over the period. Of those consumers who did not take advice who have made withdrawals, two thirds made their withdrawals on an ad-hoc basis. Of those making withdrawals on a regular basis, almost 80% opted to take an income on a monthly basis.

⁹ Retirement Outcomes Review interim report: annex 2 – Data collection and analysis, page 8.

Figure 2: Proportion of consumers making withdrawals by whether or not they took advice, 1 May 2015 – 1 May 2017

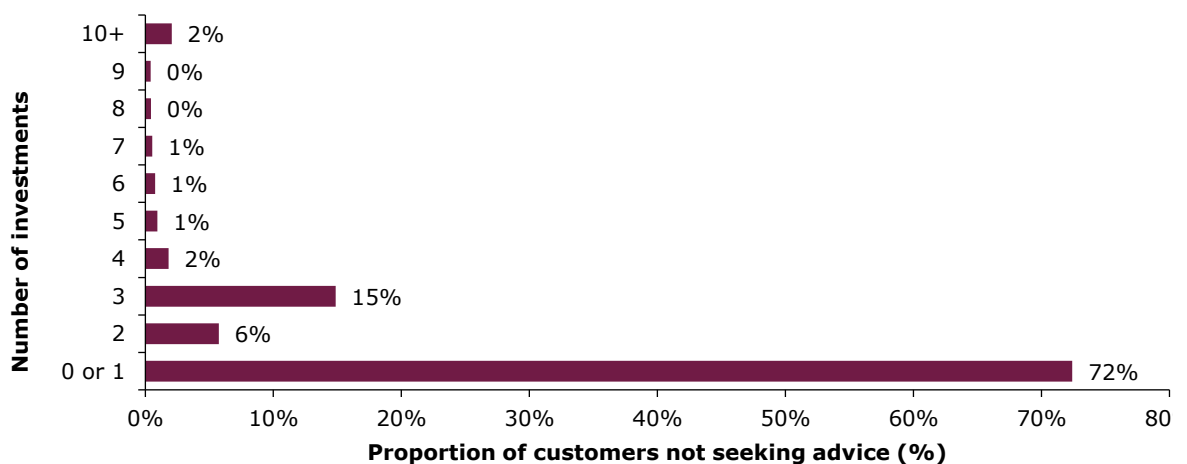


Source: FCA analysis of drawdown charges and investment choices collected from 7 providers.

Investment diversification

- In our sample of consumers, we found that the majority (72%) of consumers not taking advice have their pension pot invested in no more than one fund. This includes customers who are invested only in cash, or in cash-like funds. Figure 3 shows that only a fifth (22%) of consumers not taking advice in our sample have their pension pot invested in more than 2 funds.

Figure 3: Distribution of amount of investments for consumers not taking advice, 1 May 2015 – 1 May 2017



Source: FCA analysis of drawdown charges and investment choices collected from 7 providers.

Methodology for our drawdown investments analysis

32. In this section we discuss the analysis we carried out on consumers' investment choices using the data we have requested. The findings of this analysis are presented in chapter 3 of the final report.
33. We set out:
 - details of the methodology and approach used in the analysis
 - the results of some additional analysis on cash defaults not presented in the main report
 - some of the challenges we encountered when analysing the investment choices data and caveats of the analysis

Details of methodology for investment analysis

34. This section provides details on some of the main methodological points of our drawdown investments analysis.
35. To preserve the confidentiality of information provided to us, we have been restricted in the granularity of the analysis we can present. This has also affected the level of detail we can provide regarding some points of the methodology.

Methodology to identify consumers in cash

36. This section discusses how we have defined consumers that are wholly holding cash. There are different levels at which consumers can be 'in cash'. For the purposes of our analysis, we have focussed on two groups of consumers:
 - Those that keep their entire drawdown pot in their cash accounts. Although, in some providers holding money in cash accounts can pay interest rates, these are usually low when compared to historic returns from other types of investments. To identify these consumers, we asked providers to provide consumer level data on the total value they hold in their cash accounts, the total value they keep in regular investments and the total value in remaining assets and we have looked at those keeping all their assets in cash accounts.
 - Those that hold all their assets in a 'cash-like' investment. We have defined 'cash-like' all those funds investing entirely in 'cash' or 'money market' assets. 'Cash-like' investments have some similar characteristics to bank deposits, such as low volatility and investment growth. We have identified these consumers using the data on the 10 largest investments. These are consumers keeping all their assets in one 'cash-like' fund.
37. We also considered consumers holding most but not all their assets in cash. We have identified these as consumers holding between 50% and 99% of their assets in cash. There are very few of these consumers in each provider, thus we did not include them in our analysis.

Methodology to estimate harm from being in cash

38. We acknowledge that investing in equities and other assets necessarily involves an element of risk. Compared to this, cash can provide less volatility for the value of

assets. However, it could also lead to consumers losing out on investment growth. This is most likely to be true for consumers leaving their pots invested over a longer period of time, allowing assets to recover from periods of volatility.

39. In the main report, we provided an illustration of the potential benefits to consumers from being invested in a mix of assets rather than cash. To do so we have to assume certain rates of return. We took these from the expected average rates of return prescribed by the FCA for financial projections, building an alternative mix of assets to cash that reflects a reasonably cautious approach to drawdown investment.¹⁰
40. We used a 20 year period and assumed for the purposes of estimation that an individual would fully exhaust their pot over this period, taking an income at the beginning of each year.
41. We calculated the expected annual income that a consumer investing fully in cash could expect over the 20 year period compared to a consumer investing in the alternative mix of assets. This analysis suggested that an individual investing in cash could expect to receive an income from their pot 37% higher by investing in the alternative asset mix instead.
42. This figure is not intended to be a precise estimate of the actual benefit that any individual consumer in cash will gain from switching their investments. The assumed rates of return are based on averages and actual returns will depend upon the actual asset mix of the consumer and investment performance. We acknowledge that performance over the period is likely to vary from the expectations and periods of volatility can reduce asset values. However, given the historical data on equity outperformance of cash, we consider it likely that over a long period consumers will be better off in the alternative asset mix.

Methodology to assess consumer asset mixes

43. We analysed how consumers in different profiles allocated their investments in their portfolios to understand the impact of more structured choice architecture. This section explains how we categorised assets and identified consumer profiles for this analysis.
44. We classified investments into different categories, based on the European Fund Classification (EFC) developed by the European Fund and Asset Management Association for funds and multi-assets.¹¹ This classification is based on the percentage of equities, bonds, cash and other assets in each investment.
45. We identified single assets and funds, including balanced, defensive and aggressive multi-manager funds, based on their different levels of exposure to equities.¹² We included two additional investment categories that were not part of the EFC:
 - cash funds: we refer to this category when the fund has at least 90% of its assets in cash, based on the assumption that cash funds must be made almost exclusively of cash
 - money-market funds: we refer to this category when the majority of the fund is invested in cash or short-term securities

¹⁰ <https://www.fca.org.uk/publication/research/rates-return-fca-prescribed-projections.pdf>

¹¹ <https://www.fundconnect.com/Solutions/Assets/EFC%20Categories%20Report.pdf>

¹² These are multi-asset funds. Some of the funds identified in other funds' category are likely to be multi-assets. However, with the data available we have not been able to identify them.

46. To conduct the analysis, we also identified a set of consumer profiles using a similar approach as for the analysis on consumers at harm of being in cash. We used data on withdrawals and pot values to group together consumers with similar characteristics. Based on these characteristics, we were able to form expectations on the asset mixes that different consumers might hold. For example, we considered that consumers with smaller pots who were making withdrawals were less likely to be suited to higher risk funds. Given these expectations, we compared asset mixes across providers with more and less structured choice architectures.
47. One limitation of this analysis is the granularity of investment categories available. Specifically, more granular categorisation would have allowed us to better control for volatility. Given we did not have this information and needed to make an assessment of investment suitability, we assumed that investment categories like equities and equity funds are exposed to higher risks than 'cash-like' investments.
48. Thus, we have focussed on testing whether:
 - Investments in higher-risk assets (e.g. equities) increase for consumers in larger pots that have not made any withdrawals since in drawdown when compared to those with smaller pots.
 - Investments in lower-risk assets (e.g. cash or money-market funds) are higher for consumers with lower pots that have made withdrawals since in drawdown, and as such are more likely to exhaust their pots shortly.

Further analysis to assess the impact of cash defaults

49. In chapter 3 we presented analysis on the extent to which the number of consumers in cash has changed before and after providers stopped defaulting consumers into cash.
50. As an extension of this analysis, we compared the change in the proportion of consumers in cash after the removal of the defaults for each provider in our sample, including those that had either never defaulted consumers into cash or still did. This allowed us to understand whether the drop of consumers in cash after removal of the default was likely to be explained by factors common to other providers. If these providers experienced a similar drop in the numbers in cash over the same period, then the reduction of consumers in cash in the two providers is less likely to be due to the default's removal.
51. We calculated the proportion of consumers in cash over time for all providers and calculated the change before and after the defaults were removed. We then compared the difference across providers.
52. The results show that, on average:
 - providers that removed defaults saw a decrease (11%) of the proportion of consumers in cash in the period after removing the default
 - providers that did not remove defaults saw a small increase (2%) in the proportion in consumers in cash in the period after the defaults were removed¹³

¹³ This could be explained due to the fact that consumers in drawdown more recently have been in drawdown for less time and, as shown in chapter 3, these consumers are slightly more likely to be in cash than those who have been there longer.

53. Given that providers other than those removing the default have seen an increase in the proportion of consumers in cash rather than a decrease, this suggests that the removal of default has had a large effect on the proportion of consumers in cash.

Challenges and caveats in analysing the investments data

54. We encountered a number of challenges when conducting this analysis, which in some cases imposes some limitations or caveats on our findings. This section summarises the main issues that arose and explains how this could affect our findings.

55. Challenges and caveats for our investment analysis:

- To keep the data manageable whilst still providing a good level of detail, we requested data on the 10 largest investments at customer level. Thus, when carrying out the analysis on a portfolio basis (e.g. portfolio's performance analysis), we were not able to consider the whole set of investments for some consumers. This issue will only have affected a minority of consumers (at most 2%).
- The investments data captured the assets a consumer held at a specific date, i.e. it was a snapshot. Some consumers might have changed their investments since having moved into drawdown and we have been unable to account for this.
- Many funds, including some ready-made funds aimed at consumers not taking advice, did not have historic returns data for a significant period of time because they are too recent. In such cases, we have had to exclude them from the investment performance analysis.
- A minor number of funds were not traceable on Morningstar and we needed to rely on data from other sources (e.g. Financial Express and data provided by the providers).
- When matching investment information in providers' responses with fund's performance data from Morningstar, some funds had the same ISIN. We therefore had to make assumptions to select only one fund for the matching process, these were:
 - Where the funds were denominated in different currencies, we have taken the approach to keep only Pound-denominated investments, where these were available. However, if a consumer keeps all the investments denominated in another currency, performance data might be different due to exchange rate fluctuations.
 - If there was still more than one fund with a matching ISIN, we selected the fund with the most recent inception date.
 - If this did not resolve the issue, we kept the fund with the longest performance history.
 - If the fund entries were duplicates in all but name, we randomly selected one. This occurred in only a very small number of cases.
- We have relied on the funds' factsheets available on the providers' website to manually categorise a number of the most popular funds used by drawdown consumers. Given the large number of funds available, we were not able to manually check every fund and instead relied on the information supplied by Morningstar.

Methodology for the analysis of drawdown charges

56. In this section we set out some of the methodological issues for the analysis we carried out on drawdown charges, including the data we used and some of the limitations. The findings of this analysis are presented in chapter 4.
57. This section is structured as follows:
- first, it explains how we calculated total charges, a key input into our analysis
 - second, it sets out some of the challenges we encountered in conducting our analysis
 - finally, we present some additional analysis conducted on drawdown charges for different groups of consumers
58. As with previous sections, to preserve the confidentiality of information provided to us, we have been restricted in the granularity of the analysis we can present. This has also affecting the level of detail we can provide regarding some points of the methodology.

How we calculated total charges

59. As part of our data request, we asked providers for data on the charges (both administration and fund charges) paid by their consumers in drawdown and their investments.¹⁴
60. Our analysis was based on the total charges consumers paid in drawdown. We calculated total charges as the sum of fund charges and administration charges, namely the sum of:
- The annual fund charge based on the ongoing charges figure (OCF).¹⁵ For each consumer this was based on the OCF of their ten top investments.¹⁶
 - The annualised total administration charges since the consumers entered drawdown.
61. Unfortunately, we did not have data on pot size and administration charges paid in each month the consumer stayed in drawdown. Moreover, our data did not reflect changes in investments made since consumers moved into drawdown.
62. Due to these limitations, we calculated:
- the average OCF of the top ten investments where consumers were in at the snapshot date weighted by the value of each investment
 - the administration charge annualised¹⁷ and calculated as percentage of the pot size reported at the snapshot date

¹⁴ As noted at the beginning of this annex, some consumers were excluded from this request, such as those with initial pot sizes below £10,000.

¹⁵ The on-going charge figure (OCF) is the total charge customers pay on their investments (e.g. single assets, funds) and includes the annual management charge (AMC) and any other additional expenses related to the management of the fund/asset.

¹⁶ We therefore assumed the consumer had invested in these assets across the period. Transaction charges, as well as initial and exit fund charges were not included in the analysis.

¹⁷ We calculated the monthly admin charge as total charges divided by the number of months since entering into drawdown. We then annualised them.

- the total annual charges as the sum of weighted average OCF and annualised administration charges
63. We then converted this into a percentage charge based on the pot size. This allowed easier comparison across consumers. The total pot used to calculate the percentage of administration charges includes:
- the total amount invested including the value of the ten top investments
 - the amount held in cash accounts
 - amount invested in any other investments (e.g. property)
64. We acknowledge that our approach has several limitations because it does not take into account changes in pots and investments. However, to ensure this was not impacting the results of our analysis we conducted a sensitivity analysis looking at:
- the number of customers making withdrawals to understand for how many consumers the pot size might have varied significantly across the period
 - the number of consumers that changed their investments since entering to drawdown to understand for how many consumers the fund charges may have changed
65. Overall, we found that:
- 90% of consumers not taking advice in our sample are not regularly withdrawing. Suggesting that pot sizes on the whole will not have changed significantly over the period.
 - 90% of consumers not taking advice in our sample have not changed their investments since entering drawdown.
66. We also compared the results with the charge sheet data given to us by providers. From this, we conclude that the methodology has not significantly distorted the results and the charges presented are an accurate reflection of those paid by drawdown consumers.

Challenges in analysing the charges data

67. The main challenges we encountered during the charges data analysis were:
- Some providers reported missing fund charges (OCF) for a small number of investments. This affected the average fund charges. In these instances, we used fund charges reported on Morningstar instead.
 - One provider did not provide data on the value of assets consumers held in some types of investments (e.g. property and any other types of investments). This might affect the total charge as a percentage but we believe this has not significantly affected our results because:
 - Very few consumers not taking advice invested in these types of assets in other providers.
 - Calculating the difference between initial pot size and total withdrawals allowed us to estimate the effect of this omission. This suggested that the majority of the consumers with this provider do not have other investments.

- For some funds, performance data (i.e. returns) were not available on Morningstar. We asked providers to provide us with internal data.
- We have excluded from the analysis consumers that exclusively invested in asset types other than cash, equity, bonds or funds. This is because we did not have any data on the charges for these investments. As noted above, this did not affect many consumers in our sample.
- For a number of funds, we did not have data on 5 Year Sharpe ratios because these funds were opened more recently.
- We have excluded from our analysis a number of observations because of reporting mistakes and missing variables the providers were not able to fix. This affected a small number of observations and is unlikely to have had a significant impact on the analysis.

Additional analysis of charges across groups of consumers

68. This section presents an overview of the analysis we undertook to assess whether there were differences in the charges paid across different groups of consumers.
69. As with other parts of the analysis in the Retirement Outcomes Review, we have been restricted in the findings we can present due to the need to preserve the confidentiality of provider’s data.

Charge comparison: advised vs. not taking advice

70. We compared total charges between consumers that took advice and those that did not.
71. We first calculated mean total charges for consumers taking and not taking advice for each provider. We then calculated the difference between the means to understand whether one group was paying more than the other.¹⁸ Looking at a simple difference in means, our data does not suggest a clear pattern, with advised consumers paying more in four of the firms, but less in the other three.¹⁹
72. However, it is important to note that this comparison is not on a like-for-like basis as consumers that take advice may differ from those that do not. Nonetheless, it is interesting that no clear pattern emerges across providers.

Controlling for differences in advised consumers and those not taking advice

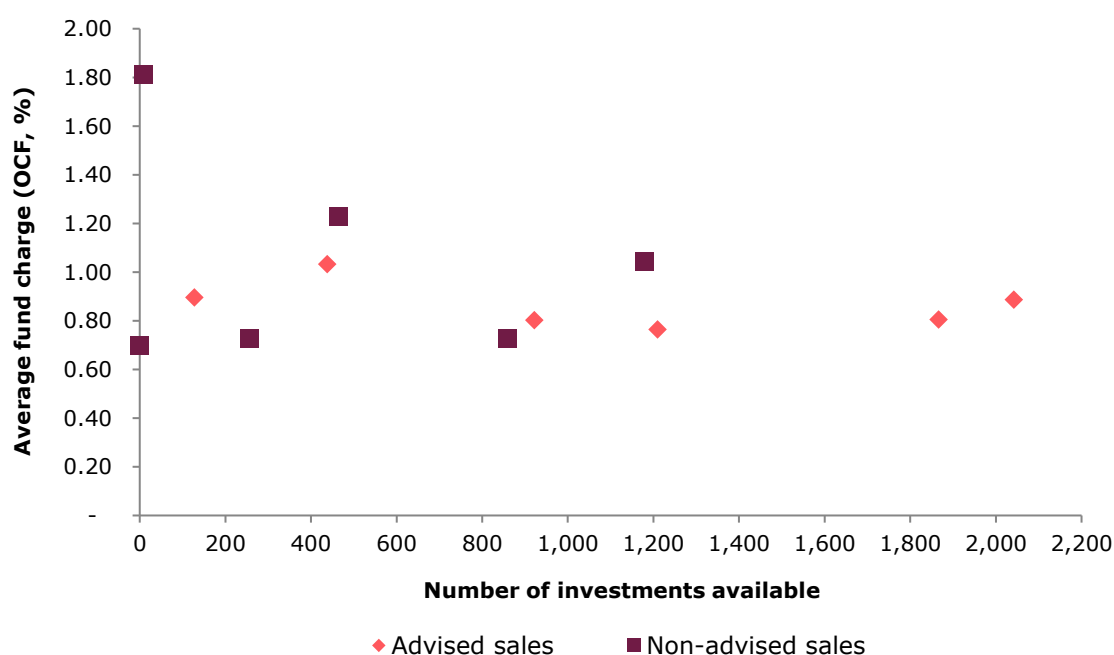
73. To try and control for some of this difference, we considered that differences in total charges could reflect differences in the investment options available to consumers. For example, we have seen providers restricting their fund range to consumers who do not take advice and some other providers developing ready-made funds/portfolios which are risk-targeted and tailored to mass-market consumers.
74. We sought to understand whether providers offering different types of investment were charging consumers more or less than providers who did not.
75. Depending on the type of investments consumers are investing in, fund charges will vary: for example, active funds and ready-made options are more likely to be expensive while individual assets and passive funds tend to be cheaper.

¹⁸ We excluded customers in cash from these calculations.

¹⁹ We performed a t-test to test the significance of the differences between the samples. The t-test assesses whether the means of two groups are statistically different from each other. All of the differences were statistically significant.

76. We wanted to assess the number of funds providers make available to advised and non-advised consumers, and compare this to average fund charges. We used the number of unique funds the customers of each provider were invested in as a measure for the number of investments available to customers. In general, even when consumers who do not take advice can access the full fund range, the range of funds where they invest in is smaller than advised consumers.
77. As Figure 4 shows, we compared the number of investments available to consumers with the average fund charge. There appears to be no clear relationship between the number of investments available (x-axis) and the average fund charge (y-axis), although there is a significant amount of variety amongst providers offering fewer investments.

Figure 4: Consumers taking and not taking advice: average fund charge vs. number of investments available to consumers, 1 May 2015 – 1 May 2017



Source: FCA analysis of drawdown charges and investment choices collected from 6 providers.

78. To further control for differences in consumer characteristics, we compared charges across groups of consumers according to their characteristics, including:
- pot size: above or below £50,000
 - withdrawal patterns: making or not making regular withdrawals
79. It was not possible to further disaggregate consumers due to small sample sizes. Table 2 sets out the number of consumers falling into each group.

Table 2: Number of consumers taking and not taking advice by type, 1 May 2015 – 1 May 2017

	<i>Group description</i>	<i>Advised sales</i>	<i>Non-advised sales</i>
Group 1	consumers not making regular withdrawals from a pot of £50k or below	14,033	15,878
Group 2	consumers not making regular withdrawals from a pot of £50k or above	17,636	7,849
Group 3	consumers making regular withdrawals from a pot of £50k or below	3,700	1,696
Group 4	consumers making regular withdrawals from a pot of £50k or above	5,987	1,073

Source: FCA analysis of drawdown charges and investment choices collected from 7 providers.

80. We then compared charges falling in each group between consumers taking and not taking advice. As shown in Table 3, in contrast to the result when comparing just average charges, when looking at the difference in the size of pot for each category, our data suggest that charges for consumers taking advice are slightly higher than for those not taking advice.²⁰

Table 3: Total charges comparison between different categories of consumer taking and not taking advice; 1 May 2015 – 1 May 2017

	<i>Group description</i>	<i>Difference in means: advised vs. non-advised total charges (percentage points)</i>
Group 1	consumers not making regular withdrawals from a pot of £50k or below	0.13
Group 2	consumers not making regular withdrawals from a pot of £50k or above	0.26
Group 3	consumers making regular withdrawals from a pot of £50k or below	0.16
Group 4	consumers making regular withdrawals from a pot of £50k or above	0.30

Source: FCA analysis of qualitative responses collected from 6 providers

81. Once categorising consumers into similar groups, the analysis suggests that consumers not taking advice are not paying more for drawdown than advised consumers. In fact, the opposite may be the case. However, while we have tried to group similar consumers together, this analysis does not fully account for other differences between these groups of consumers. In particular, it does not account for the use of products by advised consumers which could be different and therefore more costly for providers.²¹
82. It should also be noted that the findings are based on the averages across all firms in our sample. Whilst they suggest that overall consumers not taking advice are being charged more than advised consumers when controlling for some of their characteristics, this may not be true for all providers.

²⁰ We have performed a t-test to test the significance of the differences between the samples. The t-test assesses whether the means of two groups are statistically different from each other. These results are statistically significant at the 5% level.

²¹ For example, consumers who took advice may be with a provider that offers extra services that they value and are prepared to pay more for.

