Short and Sweet or Just Short?

The Readability of Product Disclosure Statements*

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Executive Summary

- Financial Markets Conduct Act 2013 introduced a new disclosure regime for issue of new products or the sale of existing products, the Product Disclosure Statement (PDS).
- PDS is a simplified document that has a limit on its length and is designed to be written as a clear, concise and effective communication.
- Readability has been linked internationally to changes in investor behaviour, including in a reduced willingness to invest in companies with less readable annual reports.
- **We consider the impact of the revised disclosure regime on the ability of people to understand the information contained within these documents, referred to as readability.**
- We look at KiwiSaver documents because: (a) they are targeted at all New Zealanders, and (b) KiwiSaver funds are continually sold. The result is a natural experiment. We can get documents before and after the change from the same fund managers.
- We consider a sample of 21 fund managers for which investment statements, prospectuses and product disclosure statements are available.
- We measure the readability of disclosure documents in two ways; the complexity of the language and the amount of finance jargon contained in the document. We measure the complexity of the language based on the Fog Index, a widely used measure of readability, and the number of unique finance terms to measure the level of jargon.
- **We find:**
    - **Reduction in unique finance terms, but a marked increase in complexity of language when compared to investment statements**.
        - However, the use of bullet-point lists in the newer disclosures may actually improve readability but lead to longer sentence lengths. This isn't accounted for and is a weakness of some readability measures.
    - **Some improvement in the amount of specialised financial language in the PDS**, with a reduction in the number of unique finance terms on average, **but a small increase in the complexity of language compared to prospectuses**.
    - The strict word count may have required firms to use more complex language to be more concise.
    - **There is more work to be done** to improve the accessibility of the language of KiwiSaver disclosure documents.
- Additional research is currently being conducted to look at how people respond to the PDS.

1. Introduction

The creation of the Product Disclosure Statement (PDS) disclosure regime in the Financial Markets Conduct Act 2013 was designed to overcome several weaknesses with prospectuses. Prospectuses and investment statements overtime became increasingly long and complex, and have transformed from documents providing information to documents designed to limit potential liability. As a result, there is a widespread belief that investors stopped using prospectuses and investment statements to make financial decisions about investing in new products or issues. The PDSs are designed to be shorter (for managed investment products they are limited to 6,000 words or 12 pages) and issuers are encouraged to make them easier to read. This research examines whether the new documents are significantly easier to understand.

We consider the ease with which an investor can understand a document in two ways; language complexity and the amount of financial terminology an investor needs to know in order to understand the PDS. Readability is particularly important in the context of KiwiSaver as these are products that are sold to 'everyday' investors, and have been widely taken up by the New Zealand investing public[†]. To look at whether the PDS documents are easier to read, we compare the last prepared prospectus and investment statement with the first PDS document for each fund manager. We use a range of metrics designed to measure the readability of the text and the amount of financial terminology contained in the document. We compare each of the measures for 21 fund providers for their publicly available prospectus and PDS, and a smaller sample of 18 funds who provided us with copies of their old investment statements, and test the statistical significance of the differences.

The results show that the PDS regime has resulted in a significant reduction in the amount of financial terminology that investors need to understand, from approximately 240 terms to 103. However, when compared with the investment statement, other readability measures suggest the PDS has resulted in less readable documents. While sentence lengths remain similar, the complexity of the language increased, and finance terms were used proportionally more frequently. Compared to the prospectus the results for language complexity are again mixed. On one hand, the language used is simpler, with a reduction in the number of large words. On the other hand, the length of the sentences has significantly increased, making them more complex and potentially harder to digest. Additionally, the increase in the length of the

[†] While KiwiSaver has been sold to the public at large in New Zealand, the Financial Markets Conduct Act sets the target for the readability of PDS documents as "prudent but non expert" investors. While the legal formulation as to the level is arguably higher than the general public, we have chosen to assess readability in relation to the wider public as this is the target market for KiwiSaver.

sentences outweighs the simplification of the language. Therefore, in general, it appears that investors require a significantly higher level of education to understand the product disclosure statements than either the prospectus or investment statement. Overall, the results suggest that there has been progress toward more accessible disclosures, but there is still considerable room for improvement.

2. Literature Review

The use of textual analysis and readability measures are a recent development in the field of finance, although they have an established history in other fields. Additionally, many of the studies to date have been restricted to considering annual reports, specifically the U.S.-based 10-K documents. For instance, Li (2008) considered the impact of annual report readability on firm performance using the Fog Index. The Fog Index is a function of word complexity and sentence length. Li finds that firms with lower earnings have higher Fog Index scores, which indicates that they are harder to read. Additionally, firms with better readability have higher earnings persistence. Biddle, Hilary and Verdi (2009) find that firms with higher readability have greater capital investment efficiency, while Guay, Samuels and Taylor (2015) find that firms with less readable annual reports try to overcome this by issuing more managerial forecasts. Lundholm, Rogo and Zhang (2014) find that foreign firms listing in the U.S. have more readable documents. They suggest foreign firms need to make their information clearer than domestic firms to attract investors.

Readability also impacts on the way investors behave in relation to firms. Miller (2010) finds that retail investors trade fewer shares in firms with less readable and larger annual reports, while Lawrence (2013) finds that small investors invest more in firms with more readable and shorter annual reports. Analysts are also impacted by the readability of annual reports. Lehavy, Li and Merkley (2011) find that firms with less readable annual reports attract more analysts, have higher analyst dispersion and lower earnings forecast accuracy. Additionally, the quartile with the worst readability have a Fog Index that requires a level of education greater than a Master's degree to understand and therefore are considered unreadable.

Studies considering documents other than annual reports are less common. De Franco, Hope, Vyas and Zhou et al. (2015) consider the readability of analyst reports and find that more readable analyst reports result in increased stock trading volumes in the days immediately following the report's release. They argue this is consistent with models that suggest investors

will initiate trades when they have access to more precise information. Additionally, Cash and Tsai (2017) study the readability of credit card agreements. They find the average agreement is written to an 8th or 9th grade level, which is greater than the average American's reading level. Additionally, more readable agreements are associated with lower annual percentage rates.

Studies related to offer documents have not tended to consider readability, although some studies have conducted textual analysis of IPO documents for equity issues. Hanley and Hoberg (2010) consider the informativeness of IPO disclosure documents. They split the information contained into standard and informative components by comparing the information contained in an IPO disclosure compared with prior IPO documents. They find that more informative IPO disclosures reduce the amount of underpricing, and can substitute for book-building processes. Loughran and McDonald (2013) consider the definitiveness of the language in the first SEC filing in the IPO process (the S-1 form). They find that weaker language, such as words like 'may' and 'might', especially in relation to the business strategy section, results in higher first day returns, increased the likelihood of price revisions and more volatility.

The focus on U.S. annual reports has meant little research has considered disclosure documents designed for the sale or offer of new financial products, nor documents aimed at products other than equities. The literature shows that financial documents are generally pitched at a relatively high level, making them difficult to read by the vast majority of the general public. However, firms that try to write more readable documents appear to be rewarded with more investor interest, therefore readability is a desirable trait.

3. Methodology

We study the readability of disclosure documents using a number of metrics that have been applied previously to study the readability of financial documents. Loughlin and McDonald (2014) argue the complexity of language, commonly measured via measures such as the Fog Index, does not fully account for the complexity of understanding financial documents. We follow Loughlin and McDonald (2013) and measure the readability of KiwiSaver documents by looking at both the complexity of the language and the amount of financial jargon that is contained in the document. We employ the Loughran-McDonald master dictionary list, which provides the number of syllables for each word. We also consider the number of unique words as a percentage of the total dictionary of words used in a document. This measures the range of vocabulary required to understand a document.

To measure the complexity of language we apply the Fog Index. This is a widely-used measure of readability and has been applied in numerous fields of research. The Fog Index measures readability based on the percentage of complex words, defined as words of three syllables or more, and the average number of words per sentence. The formula is as follows:

$$FI = 0.4 * (WordsPerSentence + \%ComplexWords * 100)$$

The Fog index is a simple way of measuring one aspect of readability however it has been criticised by some. For example, it doesn't take into account other aspects such as active vs passive voice, the use of graphics to convey information or the way information is laid out or structured. Unfortunately, objective measures for these additional aspects of readability do not currently exist.

As Loughlin and McDonald (2013) point out, another component of readability of financial documents is the amount of jargon and technical terms that a reader needs to comprehend in order to understand a document. We use Campbell Harvey's hypertext finance dictionary to create a dictionary of finance terms. As per Loughlin and McDonald (2013), we remove multiple word phrases and acronyms. The hypertext dictionary was developed within the U.S. context, therefore we add terms associated with KiwiSaver and New Zealand. We measure the amount of jargon in two ways. First, the unique number of financial terms contained in the document as a percentage of the total words and second, the percentage of finance terms in the document.

We collect the last prospectus and investment statement and the first product disclosure statement for each fund manager from the Disclose Register provided by the Companies Office. As these documents are in PDF format, we convert them to text files. We manually check the documents for accuracy, as figures and tables do not convert well. We also check for spelling, including differences between American and English spelling. We considered the body of the document to end at the application form as the structure of the application forms would make them extremely problematic to analyse. Our resulting database contains all the words in each individual document, the number of times they occur, the number of syllables in the word and whether it is a finance term.

4. Results

4.1 Investment Statement vs. PDS

Investment statements were initially introduced to act as a plain English version of the information contained in the prospectus, and to act as the primary disclosure document for investors. However, while the goal initially was to create a plain English document investors could read, they became more complicated and longer over time. As a result, the FMA in June 2012 issued a guidance note entitled "Effective Disclosure" which put emphasis on improving disclosure in the investment statements. As investment statements were meant to be the disclosure document provided to investors, we initially compare investment statements to the product disclosure statements. However, as old copies of investment statements are not publicly available we were only able to collect investment statements from 18 of the 21 fund managers who operated both before and after the change to PDS's (with the assistance of the KiwiSaver Industry Working Group[‡]). In Table 1 we compare the investment statement readability measures with the PDS results. We also calculate the difference between the two averages and the statistical significance of the difference using a matched pair *t*-test.

The results are interesting and offer a mixed view of the benefit of the PDS. We observe a significant reduction in the size of the documents as a result of the introduction of the PDS. PDS's are on average less than a quarter of the length of investment statement based on words, and 1/6th the length based on sentences. Of note, we observe a large difference in the PDSs, between 3400 and 6500 words. Given the limited word count and mandatory text, it is notable that one fund manager managed to use just over half the word count. This may be due to relying more heavily on Other Material Information documents. Additionally, more complex fund providers, which run a number of funds covering multiple risk levels, are able to avoid duplicating tables by placing some of the PDS information into the regular fund updates, provided these are also given to investors alongside the PDS. These factors may account for the differences in length.

However, the language in the PDS is significantly more complex! The percentage of complex words is 5.3% higher in the PDS, which combined with an insignificant difference in the average sentence length, results in a 2.6 increase in the Fog Index. The average Fog index of 9.7 for investment statements suggests that people only need an early high school education to understand them, compared with the 12.4 for the PDS, which relates to an education level

[‡] Thanks go to Daniel Callaghan and Sarah Beauchamp.

of the final year in high school. Currently, only 1 in 2 students complete high school with Level 3 NCEA, suggesting the PDS is beyond the understanding of half of all secondary students.

Table 1: Investment Statement vs PDS Results

	Investment Statement			Product Disclosure Statements			
	Average	Minimum	Maximum	Average	Minimum	Maximum	Difference in Averages
Number Words	22720.72	10750	71434	5226.78	3469	6474	-17493.94***
Number Sentences	2045.83	545	3679	335.06	238	432	-1710.78***
Words Per Sentence	14.53	5.64	45.23	15.75	11.74	17.85	1.22
% Complex	9.83%	0.05%	14.74%	15.14%	13.80%	17.70%	5.31%***
Fog Index	9.74	6.99	18.37	12.35	10.50	13.91	2.61***
% Unique Finance Words	2.14%	0.23%	3.29%	1.04%	0.74%	1.26%	-1.10%***
% Doc Finance Words	8.01%	0.18%	13.72%	12.52%	10.60%	14.79%	4.51%***
% Dict	10.49%	1.26%	15.07%	7.62%	5.54%	9.23%	-2.87%***

Note: We examine the investment statement and product disclosure statements of 18 KiwiSaver providers where we could obtain both documents. *Number of Words* is defined as the total number of words in the document after excluding abbreviations, names and addresses. *Number of Sentences* is defined as the number of non-heading sentences in the document. *Words per Sentence* is defined as number of words in the document divided by the number of sentences. *% Complex* is defined as the number of words contained three or more syllables divided by the total number of words in the document. The number of syllables was sourced from the Loughlin-McDonald 2011 master dictionary. *Fog Index* is calculated as 0.4*(*Words per Sentence* + *%Complex**100). *% Unique Finance Words* is the number of unique words from the Campbell Harvey hypertext finance dictionary contained within the document as a percentage of the total number of words in the finance dictionary. The finance dictionary was amended to include terms related to NZ. *% Doc Finance Words* is defined as the sum of the number of times each word contained in the finance dictionary occurs divided by the total number of words in the document. *% Dict* is defined as the total number of unique words contained in the document as a percentage of the number of words in the master dictionary. Significance of the difference in averages was calculated using a matched pairs *t*-test. * denotes significance at 10%, ** denotes significance at 5%, *** denotes significance at 1%.

While the readability of the average PDS is lower than the average investment statement, the level of vocabulary required is much less. We see the percentage of unique words in the PDS is under half that of the investment statement. One caveat on the Fog index findings is an issue regarding how a sentence is determined. This is a known weakness of the Fog index and makes the Fog easiest to apply when dealing with traditionally formatted text documents, i.e. with lots of paragraphs. The PDS, and to a lesser degree the investment statements, include a lot of information in bullet-point lists which can result in longer sentence lengths, but not necessarily in less readable text. We have done our best to treat bullet-point lists consistently but they are a limitation to our findings.

We also observe that the level of finance knowledge required to understand the PDS is lower. The percentage of unique finance terms in the PDS halves. However, the percentage of finance terms in the PDS is higher, 12.5% compared with 8%. In essence, the investment statement uses a wider range of finance terms but overall uses finance terms less frequently. An interesting point to note is that most of the investment statements also contain a glossary of finance terms, something that has been left out of the PDS[§]. This may actually improve an investor's ability to access the information within the investment statement, as plain English explanations are provided within the document and do not require the reader to go further to find the meaning of terms. A glossary may be worth considering in future revisions to the PDS, although we have no empirical evidence on the value of the glossaries at this stage.

One way to interpret the mixed results regarding readability between the investment statement and the PDS is that fund providers are struggling to convey all the required information within the strict word limits mandated for the PDS. Some consequences of this may be greater use of complex language, where a longer and more complicated word can replace several simple words, resulting in less readability. Similarly, it may also explain the greater frequency of finance terms, where finance terms can be shorter to use. This raises two questions:

1. Are the word limits for the PDS appropriate (especially given the significant difference in the number of offerings between fund providers)?
2. What is the best size of a PDS to maximise the number of investors engaging with the document?

[§] While the regulations on the PDS do not prohibit the inclusion of a glossary of terms, it does count towards the overall word count. As a result, we did not observe a glossary in any of the PDSs that we studied.

4.2 Prospectuses vs. PDS

Table 2 presents the results of the final prospectus prior to the change and the first PDS following the change, averaged over the 21 fund managers. The documents are considerably shorter. On average, KiwiSaver prospectuses were nearly 30,000 words and close to 3,000 sentences compared with just 5,200 words and 328 sentences for the PDS. Interestingly, there is quite a large range. The shortest prospectus was just over 16,000 words and the largest is over 62,000 words, close to four times longer than the shortest.

Table 2: Prospectuses vs. PDS Results

	Prospectuses			Product Disclosure Statements			
	Average	Minimum	Maximum	Average	Minimum	Maximum	Difference in Averages
Number Words	29208.81	16176	62447	5166	3469	6474	-24043***
Number Sentences	2976.86	1536	6208	327.95	238	432	-2649***
Words Per Sentence	9.77	8.13	10.70	15.92	11.74	18.91	6.16***
% Complex	19.28%	17.57%	21.07%	15.29%	13.80%	17.70%	-4.00%***
Fog Index	11.62	10.52	12.62	12.48	10.50	14.08	0.86***
% Unique Finance Words	2.61%	2.02%	3.70%	1.04%	0.74%	1.26%	-1.57%***
% Doc Finance Words	12.05%	9.82%	14.53%	12.49%	10.47%	14.79%	0.44%
% Dict	17.95%	14.77%	22.45%	7.63%	5.54%	9.23%	-10.32%***

Note: We examine the prospectus and product disclosure statements of 21 KiwiSaver providers who had both documents publically available. *Number of Words* is defined as the total number of words in the document after excluding abbreviations, names and addresses. *Number of Sentences* is defined as the number of non-heading sentences in the document. *Words per Sentence* is defined as number of words in the document divided by the number of sentences. *% Complex* is defined as the number of words contained three or more syllables divided by the total number of words in the document. The number of syllables was sourced from the Loughlin-McDonald 2011 master dictionary. *Fog Index* is calculated as 0.4*(*Words per Sentence* + *%Complex**100). *% Unique Finance Words* is the number of unique words from the Campbell Harvey hypertext finance dictionary contained within the document as a percentage of the total number of words in the finance dictionary. The finance dictionary was amended to include terms related to NZ. *% Doc Finance Words* is defined as the sum of the number of times each word contained in the finance dictionary occurs divided by the total number of words in the document. *% Dict* is defined as the total number of unique words contained in the document as a percentage of the number of words in the master dictionary. Significance of the difference in averages was calculated using a matched pairs *t*-test. * denotes significance at 10%, ** denotes significance at 5%, *** denotes significance at 1%.

We see mixed evidence of improvement in the complexity of the language used. On one hand, the number of unique words more than halves while the percentage of complex words in the PDS is 4% less, going from 19% to 15%. Additionally, the minimum values for the number of unique words and percentage of complex words for the average prospectus are higher than the maximum for the average PDS. This suggests that an effort has been made to simplify the language used within the PDS text. However, the sentences have become longer in all cases, moving from an average of just under 10 words per sentence to nearly 16. As a result of the significant increase in words per sentence, we see an increase in the Fog Index from 11.62 to 12.48, an increase of 0.86. A possible interpretation is that readers require nearly a full year of additional education, ideally between final year at high school and the first year of university, to understand a PDS.

We also see some evidence that the PDSs in general require investors to understand fewer finance terms. The percentage of finance terms in the prospectus and PDS are similar, as shown by the insignificant difference in the percentages. However, in terms of the percentage of the finance dictionary, there has been a 10% reduction, representing just under 140 words. This suggests that investors require considerably less awareness of finance terms and concepts than was previously the case. However, they do still require an understanding of over 100 terms. This is a considerable improvement in readability for investors.

4.3 Key Information Summary

The Financial Markets Conduct Act 2013 and the guidance from the Financial Markets Authority clearly outline information required within the PDS, and also some of the structure. One item of note is the so-called Key Information Summary (KIS) section, which is presented at the very start of the document, before even the contents page. This is a short section, serving as almost an executive summary for the offering, discussing the nature of the investment, the logistics of removing your money, and details about different types of funds the manager offers, including the risk level, asset allocation and basic information about the fees. This summary covers much of the information a person needs to make a decision, albeit in considerably less detail than is contained in the rest of the document.

When we compare the KIS with the rest of the document we observe that the KIS is relatively short, has higher readability, uses a smaller vocabulary and fewer unique finance words. The implication of this is that the KIS is generally easier to read as a result of having shorter sentences, and requiring a smaller vocabulary and less understanding of finance. An

interesting question though is whether investors have access to enough information, in enough detail to make a decision based just on the KIS?

Table 3: Components of the Product Disclosure Statement

	PDS - Key Information Summary			PDS - Rest of Text			
	Average	Minimum	Maximum	Average	Minimum	Maximum	Difference in Averages
Number Words	709.52	395	1200	4408.33	2699	5670	-3698.81***
Number Sentences	49.29	25	89	273.33	183	373	-224.05***
Words Per Sentence	14.71	11.31	17.95	16.29	11.83	19.47	-1.58***
% Complex	15.08%	12.17%	19.83%	15.22%	13.83%	17.65%	-0.14%
Fog Index	11.92	10.26	13.70	12.61	10.43	14.31	-0.69**
% Unique Finance Words	0.28%	0.21%	0.39%	1.00%	0.69%	1.22%	-0.71%***
% Doc Finance Words	14.83%	10.95%	17.58%	12.06%	10.25%	14.18%	2.77%***
% Dict	2.56%	1.55%	3.47%	7.37%	5.17%	9.16%	-4.82%***

Note: For each of the 21 PDS documents we separate the documents into the Key Information Summary and the rest of the document. *Number of Words* is defined as the total number of words in the document after excluding abbreviations, names and addresses. *Number of Sentences* is defined as the number of non-heading sentences in the document. *Words per Sentence* is defined as number of words in the document divided by the number of sentences. *% Complex* is defined as the number of words contained three or more syllables divided by the total number of words in the document. The number of syllables was sourced from the Loughlin-McDonald 2011 master dictionary. *Fog Index* is calculated as 0.4*(*Words per Sentence* + *%Complex**100). *% Unique Finance Words* is the number of unique words from the Campbell Harvey hypertext finance dictionary contained within the document as a percentage of the total number of words in the finance dictionary. The finance dictionary was amended to include terms related to NZ. *% Doc Finance Words* is defined as the sum of the number of times each word contained in the finance dictionary occurs divided by the total number of words in the document. *% Dict* is defined as the total number of unique words contained in the document as a percentage of the number of words in the master dictionary. Significance of the difference in averages was calculated using a matched pairs *t*-test. * denotes significance at 10%, ** denotes significance at 5%, *** denotes significance at 1%.

4.4 Mandatory Text

Additionally, a portion of the PDS represents mandated text. The mandated text is prescribed within the regulations, having been drafted by legislators, and is required to be used

verbatim. As such, this text is actually identical between the different providers. Additionally, and of some interest, given the goal of the PDS is to simplify the language, it would be expected that the mandatory text represents this goal. As such, we test the readability of the mandatory text. The results are as shown below.

The language contained within the mandatory text does appear to be more effective in explaining the necessary information in a simpler fashion. The mandated text, on average, makes up about 20% of the total text. We observe that the sentences are shorter, and there are fewer larger words, resulting in a reduction of the Fog Index of 1.84. This is a large reduction in the Fog Index, and represents nearly two years less education required to understand the text. We also see that the mandated text requires a smaller vocabulary, and a considerable reduction in the finance knowledge needed to understand the material.

There are some limitations with the comparison of mandatory text to the remaining text. There is a word limit for the total size of the document, with the mandated text taking up nearly $1/6^{th}$ of that word limit, it could be that the writers of the PDS have had to use more complicated language to cover the necessary information within the word limit. Additionally, the regulatory information is in general less technical and more focused on operational details. These factors could have allowed the legislators to draft simpler language than is possible for the providers under the current regulations.

Table 4: Comparison of the Mandatory Text vs All Text within PDS Documents

	Number Words	*Number Sentences*	*Words Per Sentence*	*% Complex*	*Fog Index*	*% Unique*	*Finance Words % Doc*	*Finance Words % Dict*
Mandatory Text	997	77	12.95	13.64%	10.64	0.38%	11.84%	2.88%
All Text	5166	327.95	15.92	15.29%	12.48	1.04%	12.49%	7.63%
Difference			2.97	1.65%	1.84	0.66%	0.65%	4.75%

Note: Using Schedule 4 of Financial Markets Conduct Regulations 2014, we identify the mandatory text that is required to be in each PDS. *Number of Words* is defined as the total number of words in the document after excluding abbreviations, names and addresses. *Number of Sentences* is defined as the number of non-heading sentences in the document. *Words per Sentence* is defined as number of words in the document divided by the number of sentences. *% Complex* is defined as the number of words contained three or more syllables divided by the total number of words in the document. The number of syllables was sourced from the Loughlin-McDonald 2011 master dictionary. *Fog Index* is calculated as 0.4*(*Words per Sentence* + *%Complex**100). *% Unique Finance Words* is the number of unique words from the Campbell Harvey hypertext finance dictionary contained within the document as a percentage of the total number of words in the finance dictionary. The finance dictionary was amended to include terms related to NZ. *% Doc Finance Words* is defined as the sum of the number of times each word contained in the finance dictionary occurs divided by the total number of words in the document. *%*

Dict is defined as the total number of unique words contained in the document as a percentage of the number of words in the master dictionary.

4.5 Finance Terminology

As noted, there is a significant reduction in the number of finance terms used in the PDS documents. In Appendix B we provide a list of 52 terms that are used in at least 15 of the 21 PDS documents. Overall, we found around 181 unique finance terms used across all the PDS documents, so nearly 1 in 3 terms is widely used. Additionally, we subjectively categorise the terms into what we perceived as difficult for an average person to understand within the finance context. It is important to note that we do this within the finance context, for instance the term trust, which has a non-finance meaning, is easy to understand as a non-finance word but would be more difficult for an average person to fully understand as finance jargon. Additionally, while people are familiar with the concept of a trust, as many people have heard of family trusts etc., we view it less likely they would fully understand the term. In this way, we distinguish familiarity with understanding, albeit subjectively[**].

The 52 terms are split into 24 terms we deem hard to understand, 7 that are moderately difficult to understand and 21 easy terms. Easy terms included words such as account, loan and KiwiSaver, while difficult terms included PIE, PIR, risk and volatility. One consequence of the common terms is that investors and individuals are likely to come across them frequently and therefore may well have taken the effort to familiarise themselves with them (perhaps optimistic). Alternatively, given these terms cover many of the key concepts an investor would need to know, this perhaps represents a list that could be considered minimum knowledge required to understand a PDS fully. It might also be wise to attempt to limit the amount of jargon outside this common list that is used, especially in light of the removal of glossaries from the PDS documents.

4. Conclusion

Overall we find that the PDS documents are a marked improvement over the prospectuses that fund managers were required to provide previously. There is a significant reduction in the complexity of the language used and the amount of finance jargon contained with the PDS. However, we do observe an increase in the length of the sentences which can make documents more difficult to read. One observation, however, is that the PDS has

[**] As the rating has been done subjectively we would welcome feedback on these ratings.

encouraged fund managers to use more bullet pointed lists and tables rather than more traditional paragraphs. This may be responsible for the increased sentence length, and may in fact improve an investor's ability to understand the information contained. It is also worth noting that while PDS documents are significantly shorter and appear to be easier to understand, it is still not clear if a typical KiwiSaver investor would be able to understand the information they contain.

While the PDS does appear to have made improvements in some areas, an open question is whether the changes will be enough to encourage investors to rely more heavily on the PDS when making KiwiSaver decisions. We intend to explore this question in a follow-up study where we will examine the general public's ability to understand the information within PDS documents and seek guidance on the strengths and weaknesses of the PDS from the perspective of KiwiSaver investors.

5. References

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Appendix A: KiwiSaver Fund Managers Included in the Samples

Fund Manager	Prospectus	Investment Statement	Product Disclosure Statement
Amanah	YES	NO	YES
AMP	YES	YES	YES
ANZ	YES	YES	YES
ANZ Default	YES	YES	YES
Aon	YES	YES	YES
ASB	YES	YES	YES
BCF	YES	NO	YES
BNZ	YES	YES	YES
Fisher Funds	YES	YES	YES
Generate	YES	YES	YES
Kiwi Wealth	YES	YES	YES
Koinonia	YES	YES	YES
Lifestages	YES	YES	YES
Medical Assurance Society	YES	YES	YES
Mercer	YES	NO	YES
Milford	YES	YES	YES
NZ Funds	YES	YES	YES
OneAnswer	YES	YES	YES
SuperEasy	YES	YES	YES
SuperLife	YES	YES	YES
Westpac	YES	YES	YES

Appendix B: Common Finance Terms Used in PDS Documents

Word	# PDS	Difficulty
account	21	Easy
asset (s)	21	Moderate
basis	15	Hard
capital	15	Hard
cash	21	Easy
company	16	Easy
contribution	21	Hard
credit	19	Moderate
currency	20	Easy
custodian	20	Hard
default	21	Hard
disclosure	21	Hard
fee	21	Moderate
growth	21	Hard
guarantee	21	Hard
index	17	Hard
interest	21	Easy
investment (s)	21	Easy
investor	21	Easy
kiwisaver	21	Easy
loan	15	Easy
long	21	Hard
loss	21	Easy
low	21	Easy
management	21	Easy
manager	21	Easy
market	21	Moderate
mean	21	Hard
money	21	Easy
net	18	Moderate
note	21	Hard
offer	18	Hard
option	21	Hard
payment	19	Easy
pie	21	Hard
pir (s)	21	Hard
portfolio	21	Hard
quarterly	19	Easy
refund	21	Easy
resolution	20	Moderate
return	21	Easy
risk	21	Hard
salary	17	Easy

sipo	21	Hard
superannuation	20	Moderate
term	21	Hard
total	21	Easy
transfer	21	Easy
trust	21	Hard
underlying	17	Hard
unit	15	Hard
volatility	21	Hard