COMPETITION ECONOMISTS GROUP

# Debt staggering of Australian businesses

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# Table of Contents

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# List of Figures

# List of Tables

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# 1 Executive Summary

1. This report surveys three measures that quantify the extent of debt staggering carried out by Australian firms.

### 1.1.1 Measure 1: Range statistic

2. The range is defined as the difference between the largest and smallest values in the sample. When applied to debt staggering, calculating the range involves determining the number of years between the debts with the longest and shortest time to maturity.

3. The main benefit of the range as a measure of debt staggering is its simplicity, which makes it a useful starting point as a measure of spread.

### 1.1.2 Measure 2: Weighted Mean Absolute Deviation (WMAD)

4. Mean absolute deviation (MAD) is a commonly used statistical measure of the amount of spread in a sample. MAD is based on the concept of absolute deviations, whereby an observation's absolute deviation from the mean refers to its absolute distance from the mean of the entire sample.

5. If the sample contains observations that are far from the mean, it would indicate that the sample data is fairly spread out. The converse is true for samples with observations near the mean, which indicates that the sample has low spread. An intuitive measure of spread would thus be to obtain the mean of the absolute deviations (MAD) for all observations in the sample.

6. For example, a firm that had evenly spaced debt maturity from 0 to 10 years (or n to n+10 years) would have a MAD of 2.5 years. By contrast, a firm that had evenly spaced debt maturity from 0 to 5 years (or n to n+5 years) would have a MAD of 1.25 years

7. MAD can be further modified by placing higher weight on debts with larger amounts outstanding. Instead of obtaining the mean of the absolute deviations for all observations in the sample, the absolute deviations are weighted according to the amount of debt outstanding, which results in the weighted mean absolute deviation (WMAD) measure. With this modification, larger debts will have more influence on the measure and vice versa.

8. The formal definitions of MAD and WMAD are shown below:

$$MAD = \frac{\sum_{i=1}^{n} |x_i - \bar{x}|}{n}, \quad WMAD = \frac{\sum_{i=1}^{n} w_i |x_i - \bar{x}_w|}{\sum_{i=1}^{n} w_i},$$

### 1.1.3 Measure 3: Sum of Squared Percentage Debt (SSD)

9. An approach similar to the Herfindahl–Hirschman Index (HHI) can also be used to measure debt staggering. As described in Section 97, HHI measures the concentration of an industry based on the sum of squared market share percentages of its firms. When there are many small firms in the industry with low market shares, HHI returns a small value approaching 1, which suggests that the industry is highly competitive. If the industry is a monopoly, HHI returns a value of 10,000.

10. Similarly, the relative individual sizes of a firm's debts can provide information on the extent of debt staggering utilised by the firm. A firm that splits its total debt amount to several small debts has a more staggered debt structure than one that only has a few large debts. Taking the sum of squared percentages of individual debts relative to the firm's total amount of debt outstanding thus provides a measure of how much staggering the firm has used.

11. The formula for sum of squared percentage debt (SSD) is shown below:

$$SSD = \sum_{i=1}^{n} \left( \frac{Amount\ outstanding\ for\ debt_i}{Total\ debt\ outstanding\ for\ the\ firm} \times 100\% \right)$$

## 1.2 Empirical evidence of debt staggering

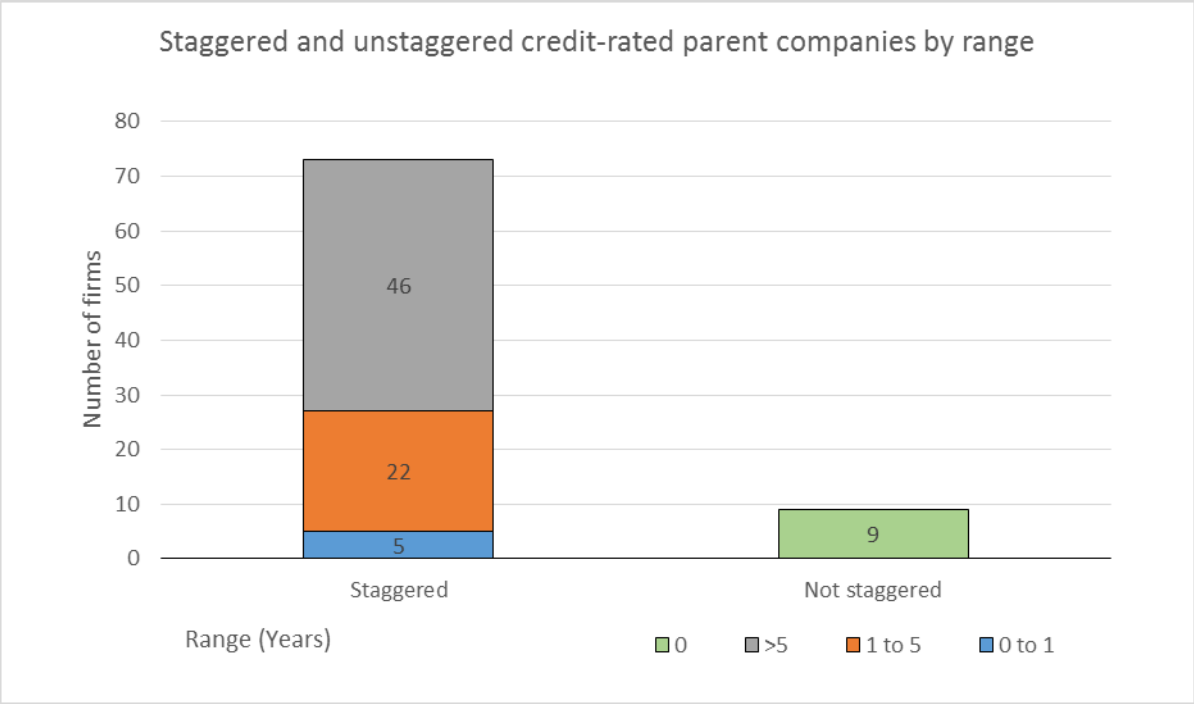
### 1.2.1 Range statistic

12. Of the 82 parent companies in our sample that have issued at least one credit-rated debt, 9 do not stagger their debts, while the remaining 73 do. This comparison can be seen in Figure 1.

13. Figure 105 shows a histogram of the range statistics for the 73 parent companies in our subsample that do stagger their debt. As seen in Figure 2, only 37% of the companies with credit ratings have a range of 5 years or less. In contrast 70% of the companies in the full sample have a range of 5 years or less.[1]

[1] See Figure 99.

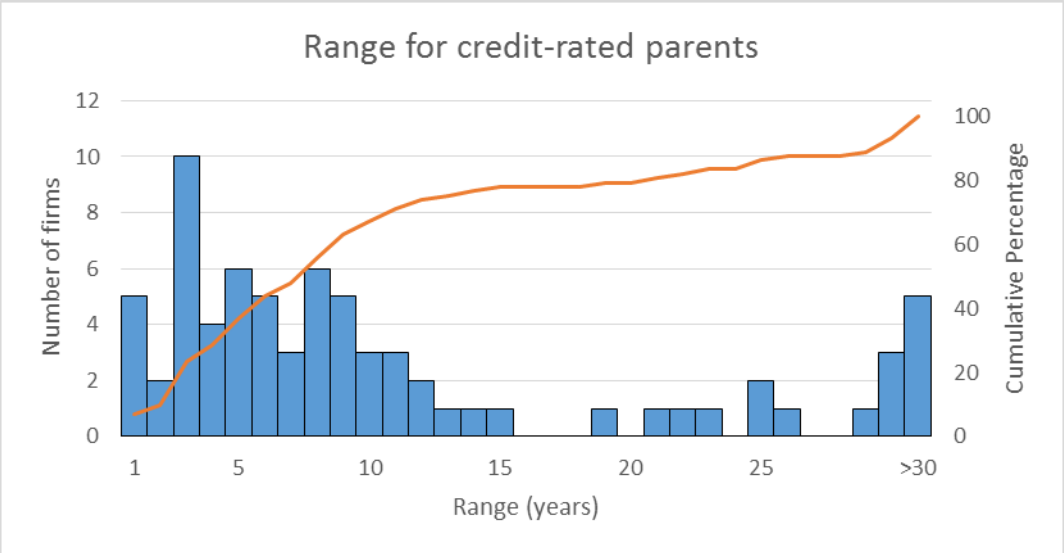
**Figure 1: Staggered and unstaggered parent companies with credit ratings, measured using the range statistic**




14. It is important to note that a primary reason for staggering debt is to avoid a situation where a large amount of debt is falling due in the immediate future (e.g., in the next 12 months). A firm might have a zero range but still have no debt falling due for 5 years is its only debt outstanding matures in 5 years. Such a firm may not have staggered debt but it does have the opportunity to raise new debt prior to the existing debt coming due. In this sense, it has the 'option to stagger' its debt.

15. Of the 9 firms that have only one debt issuance four of these have sub investment grade credit ratings. Of the 5 remaining firms with investment grade credit ratings the average remaining maturity of their single debt issuance is 6.9 years (and the shortest is 3 years). These firms clearly have an 'option to stagger' prior to maturity in order to reduce refinance risk.

**Figure 2: Distribution of the range statistic for parent companies with credit ratings and staggered debt**




### 1.2.2 Weighted mean absolute deviation

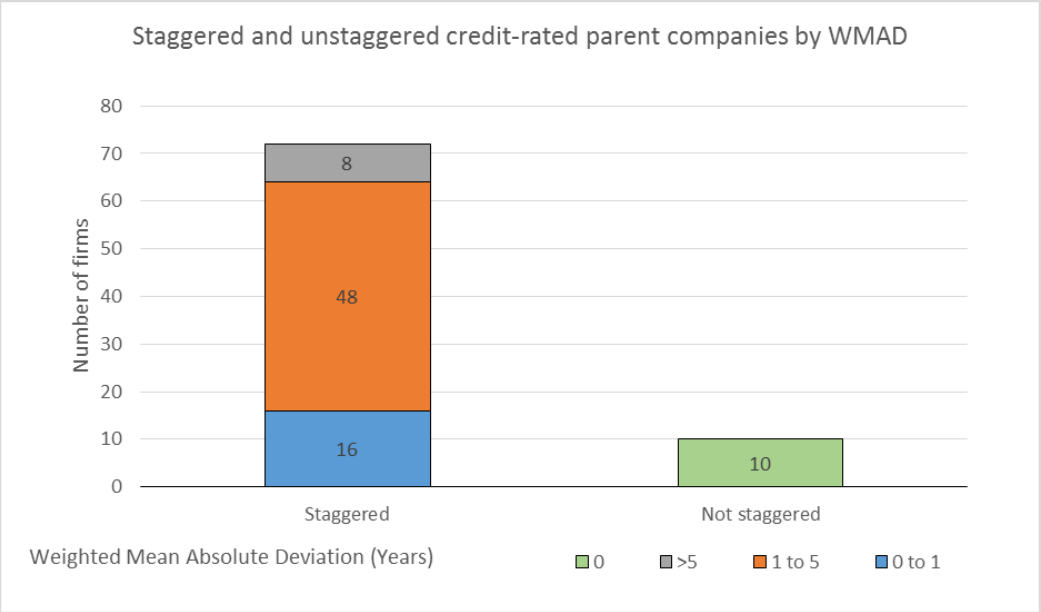
16. Of the 82 parent companies with credit ratings, 10 are identified by WMAD as not having staggered their debt while the remaining 72 are identified as having done so. This comparison is shown below in Figure 3.[2]

17. Figure 4 shows a histogram of the WMAD for the 62 parent companies in our subsample that stagger their debt. As seen in Figure 4, only 40% of companies in the sample of firms that have credit ratings have a WMAD of 1.5 years or less. In contrast, the percentage of companies in the full sample (including firms without credit ratings) with WMAD of 1.5 years or less in the full sample is much higher at 70%.[3]

[2] WMAD (and SSD) identify one additional company, Boral Ltd, as having unstaggered debt. This arises because Boral Ltd has two debts – a bond with A$ 157.78 m outstanding, and a revolver loan of amount A$ 500 m, but $0 outstanding. The range statistic takes the revolver loan into account, but the WMAD and SSD both assign no weight to it, which leads these two measures to conclude that no debt staggering occurred in this case.

[3] See Figure 101.

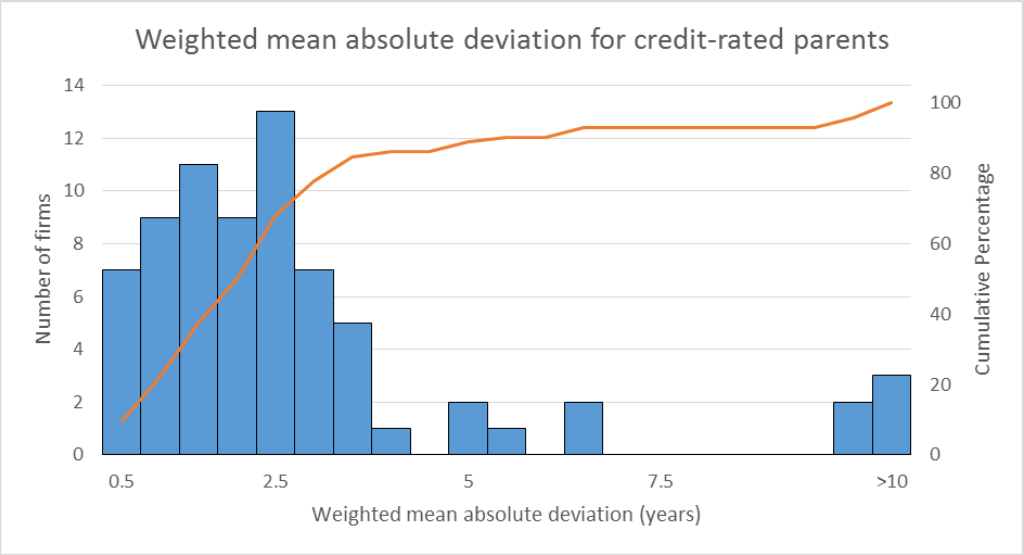
**Figure 3: Staggered and unstaggered parent companies with credit ratings, measured using the Weighted Mean Absolute Deviation statistic**




18. Once more it is important to note that, of the 9 firms – excluding Boral Ltd's unique case as pointed out in Footnote 2 above – that have only one debt issuance (i.e., have a zero WMAD and therefore do 'not stagger' their debt according to this definition), four of these have sub investment grade credit ratings and the average remaining maturity of the single debt issuance for the other 5 firms is 6.9 years.

19. 56 out of the 82 firms with credit ratings have WMAD score of greater than 1.0 – consistent with spreading debt over a maturity period of more than 4 years. Moreover, the firms that have WMADs of less than 1.0 tend to not have any debt falling due in the immediate future. For these firms, the mean and median periods for the shortest maturity debt are 3.1 and 2.3 years respectively.

**Figure 4: Distribution of the Weighted Mean Absolute Deviation statistic for parent companies with credit ratings and staggered debt**




### 1.2.3 Sum of squared percentage debt

20. Within the subsample of 82 parent companies with credit ratings, SSD identifies 10 parent companies as not having staggered their debt, and 72 parent companies as having done so. This comparison can be seen in Figure 5.

21. Of the 72 parent companies in the subsample identified as having staggered debt, 31 had high debt staggering (SSD below 2000), 27 had medium debt staggering (SSD between 2000 and 4000), and 14 had low debt staggering (SSD above 4000). This is shown in Figure 6.[4]

22. SSD also identifies the subsample of parent companies with credit ratings as having more staggered debts than the full sample. In particular, the subsample with credit ratings have a higher proportion of companies with staggered debts. Of these, the proportion of companies with high and medium debt staggering in the subsample are both higher than their counterparts in the full sample.[5]

[4] See Section 5.2 and Section 11.1.3 for the definitions we used to classify high, medium, and low levels of debt staggering.

[5] See Figure 103.

**Figure 5: Staggered and unstaggered parent companies with credit ratings, measured using the Sum of Squared Percentage Deviation statistic**

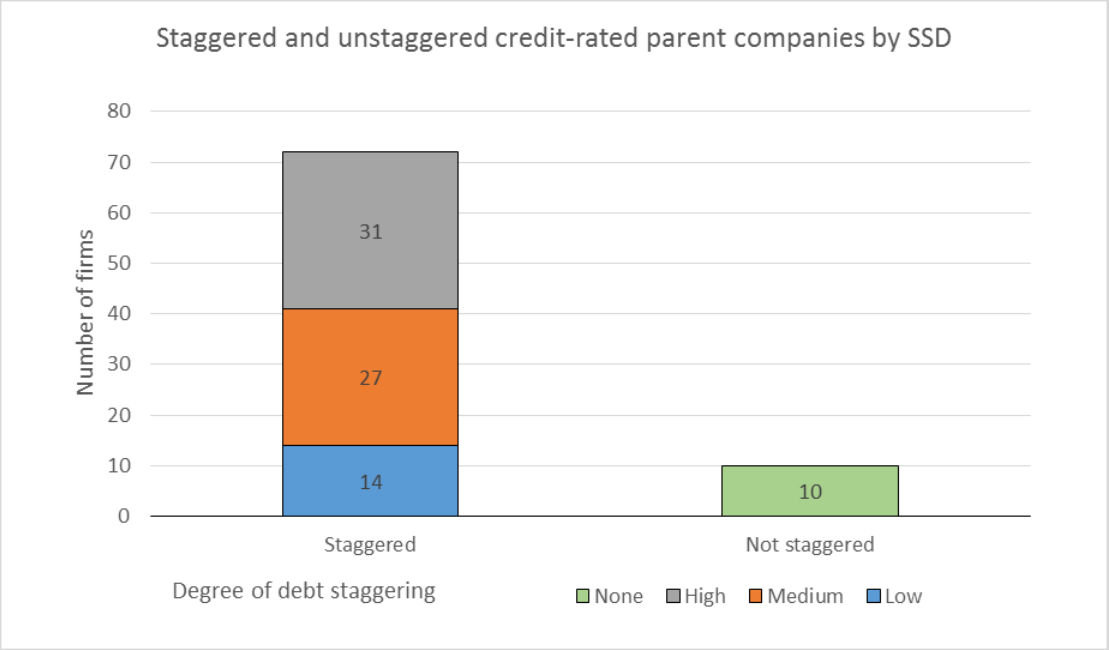
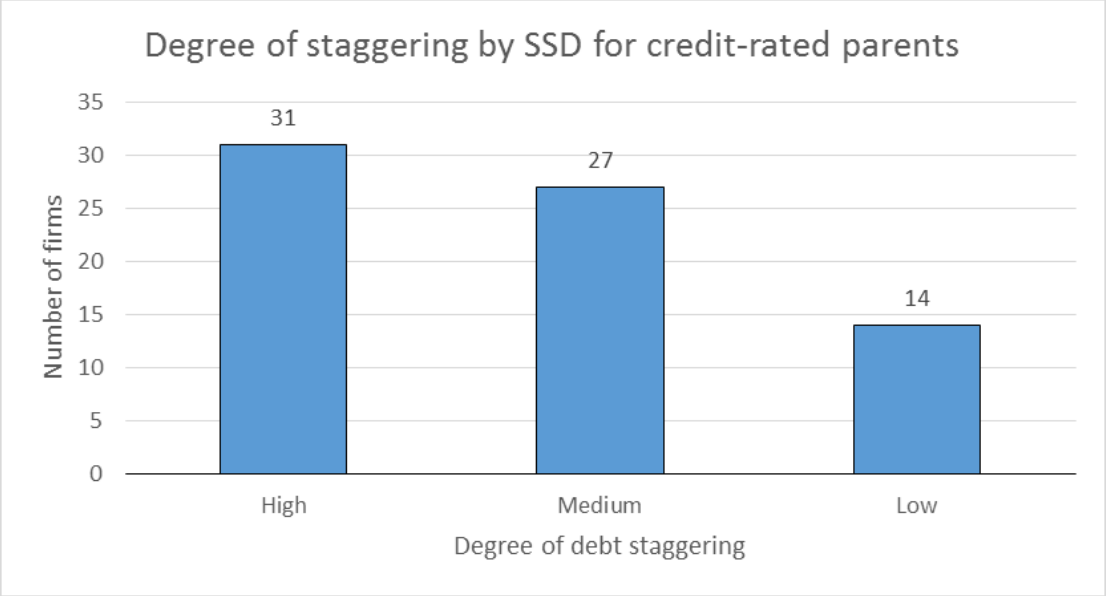



**Figure 6: Degree of debt staggering by parent companies with credit ratings, as measured by the Sum of Squared Percentage Debt statistic**



## 1.3 Conclusion

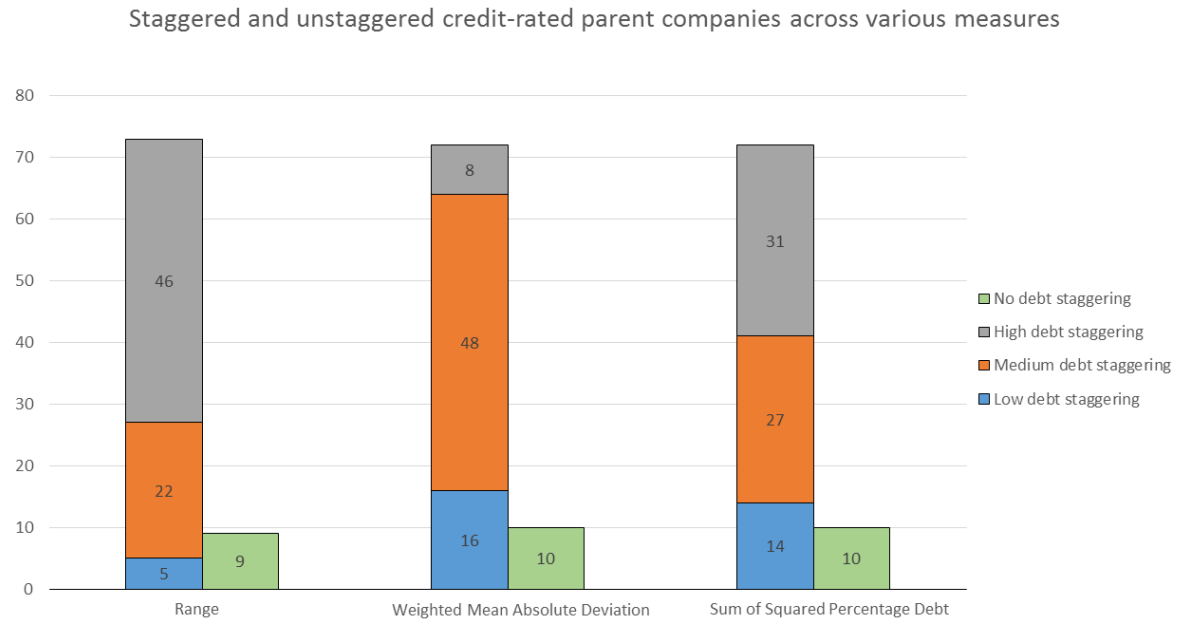
23. This survey makes clear that it is the standard practice of Australian firms with credit ratings to stagger their debt issuance.

24. Only 9 out of the 82 firms with credit ratings have as single debt issuance (i.e., no staggering of maturity). Four of these have sub investment grade credit ratings. Of the 5 remaining firms with investment grade credit ratings the average remaining maturity of their single debt issuance is 6.9 years (and the shortest is 3 years).

25. 72 out of the 82 firms with credit ratings practice debt staggering, as identified by a WMAD score of greater than 0. 56 out of these 72 firms have WMAD score of greater than 1.0 – consistent with spreading debt over a maturity period of more than 4 years. Moreover, the firms that have WMADs of less than 1.0 tend to not have any debt falling due in the immediate future. For these firms, the mean and median periods for the shortest maturity debt are 3.1 and 2.3 years respectively.

26. The distribution of companies with high, medium, low, and no debt staggering as assessed by each of the three measures is shown in Figure 7.[6]

**Figure 7: Staggered and unstaggered credit-rated parent companies as assessed by the three measures**




[6] As with Figure 1 and Figure 3, high, medium, and low debt staggering for the range and weighted mean absolute deviation refer to values of >5, 1-5, and <1 year respectively.

# 2 Introduction

27. My name is Thomas Nicholas Hird and I am a founding director of CEG Asia Pacific (**CEG**) and head of its Melbourne office. I have a Ph.D. in Economics from Monash University and am an Honorary Fellow of its economics faculty. I have more than 20 years of experience in the economic analysis of markets and in the provision of expert advice in regulatory, litigation and policy contexts. I have provided expert testimony before courts and in numerous regulatory forums.

28. We have been invited by DBP to provide an expert empirical assessment of how firms in the economy at large finance their debt, with a focus on whether or not they stagger their debt. The focus is not on firms in the regulated energy sector, for which several reports are already available, but rather for firms outside this sector.

29. DBP is also interested in assessing the debt financing structures for different types of firms, such as those:

- In different sectors of the economy;
- With different fixed cost levels (that is, firms with large and small asset bases), and;
- In industries with differing levels of competitiveness (for example, industries with more or less competitors or higher or lower Herfindahl-Hirschman Indices).

30. The specific issue we have been asked to address is set out below.

> *We require an expert empirical assessment of how firms in the economy at large finance their debt, with a focus in particular on whether or not they stagger their debt. The focus is not on firms in the regulated energy sector, for which several reports are already available, but rather for firms outside this sector.*

## 2.1 Structure of this report

31. We address the above issues in the remainder of this report, which is structured as follows:

- **Section 3** provides an overview of the methodology used to select the sample of bonds and loans from Bloomberg's database, and provides a brief description of the data processing issues that were encountered with the sample.
- **Section 4** contains descriptive statistics on the debts included in our sample. In particular, the section considers the distribution of the amount and type of debt outstanding, year of debt issuance, year of debt maturity, and considers the debt staggering carried out by two parent companies in the sample.

- **Section 5** presents the descriptive statistics for debts issued by each of the 12 industry sectors represented in our sample, and classifies them into high, medium, and low competitiveness according to the Herfindahl-Hirschman Index (HHI).
- **Sections 6 to 7** describe the approach used to classify the parent companies within our sample according to their fixed cost levels and debt-to-equity ratios respectively. Specifically, the parent companies were divided into two groups according to whether they were above or below the median for each variable.
- **Section 8** describes the measure used to identify the credit ratings of the parent companies in the sample, and shows the distribution of debts across each credit rating.
- **Sections 9** presents the empirical evidence regarding the term of debt at the date of issue for different subsamples. The distribution of the term of debt, as well as the weighted and simple averages, are shown for firms in different industry sectors, with high or low fixed cost levels and debt-to-equity ratios, and for different credit ratings.
- **Section 10** presents the empirical evidence of the year of debt issuance and year of debt maturity for the same list of subsamples studied in **Section 9**.
- **Section 11** defines three measures used to quantify the extent of debt staggering by parent companies – range, weighted mean absolute deviation (WMAD), and sum of squared percentage debt (SSD)
- **Appendix A** shows the distributions of the year of debt issuance and year of debt maturity for the 82 parent companies in the sample that had issued at least one credit-rated debt. The weighted and simple average debt term and time to maturity of the debts issued by those parent companies are also shown.

32. I acknowledge that I have read, understood and complied with the Federal Court of Australia's *Practice Note CM 7, Expert Witnesses in Proceedings in the Federal Court of Australia*. . No matters of significance that I regard as relevant have to our knowledge been withheld.

Thomas Nicholas Hird

23 December 2014

# 3 Sample selection and data processing

## 3.1 Sample selection

33. The sample was obtained by searching Bloomberg's database for active corporate bonds and loans, and consolidating all duplicate bonds. Since this study focuses on how businesses in Australia structure their debt, we therefore limited the search to debts that categorised Australia as the associated country of risk. This mirrors the approach that the Economic Regulation Authority in Western Australia used to identify Australian bonds.[7]

34. Bloomberg considers four factors when determining an issuer's country of risk. These factors, in order of importance, are as follows:

    - Management location (usually defined by the country of domicile);
    - Country of primary listing;
    - Country of revenue; and
    - Reporting currency of the issuer.

35. We also investigated constructing the sample according to the debt issuer's country of domicile, but found that the country of risk approach was most appropriate for this study because the former method left out debts that were issued by foreign subsidiaries of Australian firms. Such debts are clearly relevant to this study because they are likely to have an impact on the respective parent company's risk profile and would therefore influence their debt-structuring and debt-staggering decisions. As such, we concluded that the country of risk approach produced the most suitable sample for this study.

36. The search was conducted on 20 October 2014. Out of the 304,969 active bonds and loans listed on Bloomberg on that date, 4697 listed Australia as the country of risk, and were thus included in our sample. These consisted of 3171 bonds and 1526 loans issued by 747 issuing companies. In turn, these issuers were traced to 619 ultimate parent companies.

## 3.2 Initial data processing

37. The following data for the debts in our sample required some initial data processing before analysis could be carried out:

    - Issue date and maturity;

[7] Economic Regulation Authority, 'Draft Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System', 14 October 2014, p. 206.

- Amount outstanding;
- Industry classification;
- Industry competitiveness;
- Fixed cost levels;
- Debt-to-equity ratio; and
- Credit rating.

### 3.2.1 Issue date and maturity

38. The maturity of each debt is used to determine its time to maturity in years as at 20 October 2014. The time to maturity is in turn used to calculate the weighted average time to maturity of various subsamples in this study, with the amount of debt outstanding being used as weights.

39. In addition, the sample contains 25 perpetual bonds, which do not have an explicit maturity date. These bonds are not included in our subsequent analysis since the respective issuers have the option of not repaying the principal amounts on these bonds.

### 3.2.2 Amount outstanding

40. We used Bloomberg's data on the amount of debt outstanding whenever it was available. If there was no information available on the amount of debt outstanding, we employed a conservative approach and assumed that the entire debt remained outstanding.

41. This is particularly significant with revolver loans, which involve loan agreements whereby the borrower can repay and redraw varying loan amounts up to an agreed maximum, which results in sparse data on the actual amount of debt remaining. Where relevant, the charts displayed in subsequent sections will distinguish between the amount of debt outstanding and the amount that remains available in a revolver loan.

42. We also converted all foreign-denominated debts to their Australian-dollar equivalents using the end-of-day exchange rate on the issue date of the debt. If the issue date fell on a weekend, we used the end-of-day exchange rate on the Friday of that week. While this approach produces a fairly accurate currency conversion for most debts, it should be noted that the conversion will be less precise when applied to revolver loans and callable debts since the relevant currency exchange rate in these cases may differ from the exchange rate on the issue date.

### 3.2.3 Industry classification

43. Each debt in the sample was classified according to the Bloomberg Industry Classification System (BICS). The BICS sets out three levels of classifications: industry sector, industry group, and industry subgroup.

44. The three levels of BICS classifications are available on the debt, the issuer, and the parent company. The industry classification of the issuer is generally most relevant for our analysis since it most closely reflects the underlying corporate context of the debt for comparison across industries.

45. For example, the bond issued by Ausdrill Ltd on 9 Nov 2012 with maturity on 1 Nov 2019 is classified under the finance industrial sector, since the offering memorandum states that the proceeds of the offering were to be used for repaying a previous loan. The issuer itself, however, is in the basic materials industry sector, and the bond should thus be considered in that context when making comparisons to debts issued by other businesses in the same industry.

46. The issuers in the sample fall into 12 industry sectors, 65 industry groups, and 189 industry subgroups. These are set out in Section 5.

### 3.2.4 Industry competitiveness

47. The formula for the Herfindahl-Hirschman Index (HHI), a commonly used measure for determining the competitiveness of industry sectors, requires data on the market shares of all firms in the sector of interest.

48. Since Bloomberg does not keep track of the domestic market shares of firms within Australian industry sectors, we applied an alternative approach to determining domestic market share based on the proportion of an individual issuer's sales revenue relative to the total sales revenue of all issuers within our sample that also belong to the same industry sector. Our approach is described in Section 5.

49. Out of the 12 industry sectors in our sample, there was insufficient revenue data on Bloomberg for three of them (funds, government, and diversified). Of the remaining nine sectors, two were classified as sectors with high competitiveness, while four and three sectors were classified as having medium and low competitiveness respectively.

### 3.2.5 Fixed cost levels

50. In considering the debt financing structures of firms with different fixed cost levels, it is necessary to obtain historical data on fixed cost levels in Australian dollars as at the issue date of the debt as opposed to current values. This is because the fixed cost levels of many of the firms in our sample have grown substantially between the issue date and the current time period. It would thus be inaccurate to classify a firm

as having high fixed costs if its fixed costs were substantially lower as at the issue date of the debt.

51. Bloomberg stores data on the reported net fixed assets (property, plant, and equipment) of debt issuers and parent companies, defined as the value of gross fixed assets less accumulated depreciation.

52. In turn, fixed assets are defined as:

> *"Those assets of a permanent nature required for the normal conduct of a business, and which will not normally be converted into cash during the ensuring [sic] fiscal period."*

53. Since companies do not frequently report the values of their net fixed assets, we obtained the historical values of net fixed assets as at 31 December on the year of debt issue. This approach yielded the most data on net fixed assets from Bloomberg, although no data was available for historical values in 2005, 2006, and 2011.

54. Our analysis focuses on the fixed cost levels of the parent company and not the issuer since the debt financing structure of the former provides a better reflection of the extent of debt staggering being carried out. For example, a parent company with several subsidiaries that each issued one debt maturing in different years has clearly staggered its debt – a decision that would not be apparent if the analysis focused on the debt financing structure of the individual issuers.

55. One problem with the above approach is that analysing the debt financing structure of parent companies occasionally leads to nonsensical results with state-owned subsidiaries because Bloomberg sometimes lists the whole country as the ultimate parent of the issuer. In such cases, we traced the corporate hierarchy of each issuer to identify the parent level at which the decision-making on debt financing was likely to be made. Our findings on this issue are further elaborated on in Section 6.

### 3.2.6 Debt-to-equity ratio

56. Bloomberg provides data on two debt-to-equity ratios: total-debt-to-common-equity and total-debt-to-total-equity. The key financial data in these ratios are defined as follows:

- Total debt: Sum of short-term and long-term borrowings
- Total equity: Sum of common equity, minority interest, and preferred equity
- Total common equity: Sum of share capital, share premium, and retained earnings

57. The total-debt-to-total-equity ratio is more suitable for our analysis since it more accurately reflects the extent of gearing by the borrower, which could influence their decision-making regarding debt staggering.

58. As with our approach to fixed cost levels, our analysis focuses on the debt-to-equity ratio of the parent company unless the ultimate parent company identified by Bloomberg is clearly inappropriate. We also used historical debt-to-equity ratio data as at the issue date, which most closely reflects the conditions facing the parent company at the time of issue. This approach led to the same issue whereby Bloomberg does not have historical data for 2005, 2006, and 2011.

### 3.2.7 Credit rating

59. Bloomberg tracks debt ratings from three credit rating agencies: Standard & Poor's (S&P), Moody's, and Fitch. We selected Standard & Poor's ratings for our analysis since they are commonly used in practice, having been referred to by the Reserve Bank of Australia and the Economic Regulation Authority in Western Australia.[8,9]

60. Of the various credit ratings provided by S&P, the Long Term Local Currency Issuer Credit Rating was selected for use in this study because it yielded the most number of credit ratings for our sample and is also a more suitable consideration for the structuring of long term debt. This rating is defined as the rating assigned to the "long term obligations of the issuer if repaid in the local currency of the issuer".

61. Out of the 4697 debts in our sample, 2724 received credit ratings, which ranged from AA+ to B-. The credit rating breakdown of the debts in the sample are set out in Section 8.

### 3.2.8 Summary of data to be used

62. Table 1 summarises the initial data processing applied to the data obtained from Bloomberg.

[8] Reserve Bank of Australia, 'New Measures of Australian Corporate Credit Spreads', *Bulletin*, December quarter 2013, p. 25.

[9] Economic Regulation Authority, 'Draft Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System', 14 October 2014, p. 206.

**Table 1: Summary of data obtained from Bloomberg**

| | Data | Reason |
|---|---|---|
| **Industry competitiveness** | HHI of issuer's industry sector | More closely reflects the industry associated with the debt |
| **Fixed cost levels** | Parent company's historical net fixed assets if reasonable | Debt staggering reflects the risk management approach of the parent company |
| **Debt-to-equity ratio** | Parent company's total debt to total equity ratio if reasonable | Debt staggering reflects the risk management approach of the parent company |
| **Credit rating** | S&P long term local currency issuer credit rating | Matches the long-term considerations related to debt staggering and yields the most ratings in the sample data |

### 3.2.9 Weighted average and simple average

63. The main statistics used for comparing the debt term and time to maturity across subsamples are the weighted average and simple average of the variable of interest. The weighted average is weighted according to the amount of debt outstanding, which means that larger debts will have more influence on it.

64. The difference between the weighted average and simple average provides some information on the distribution of the variable of interest. For instance, in the case of debt term at issuance, a weighted average that exceeds the simple average generally suggests that the subsample contains long-term debts with larger outstanding amounts and short-term debts with smaller outstanding amounts.

# 4 Sample descriptive statistics

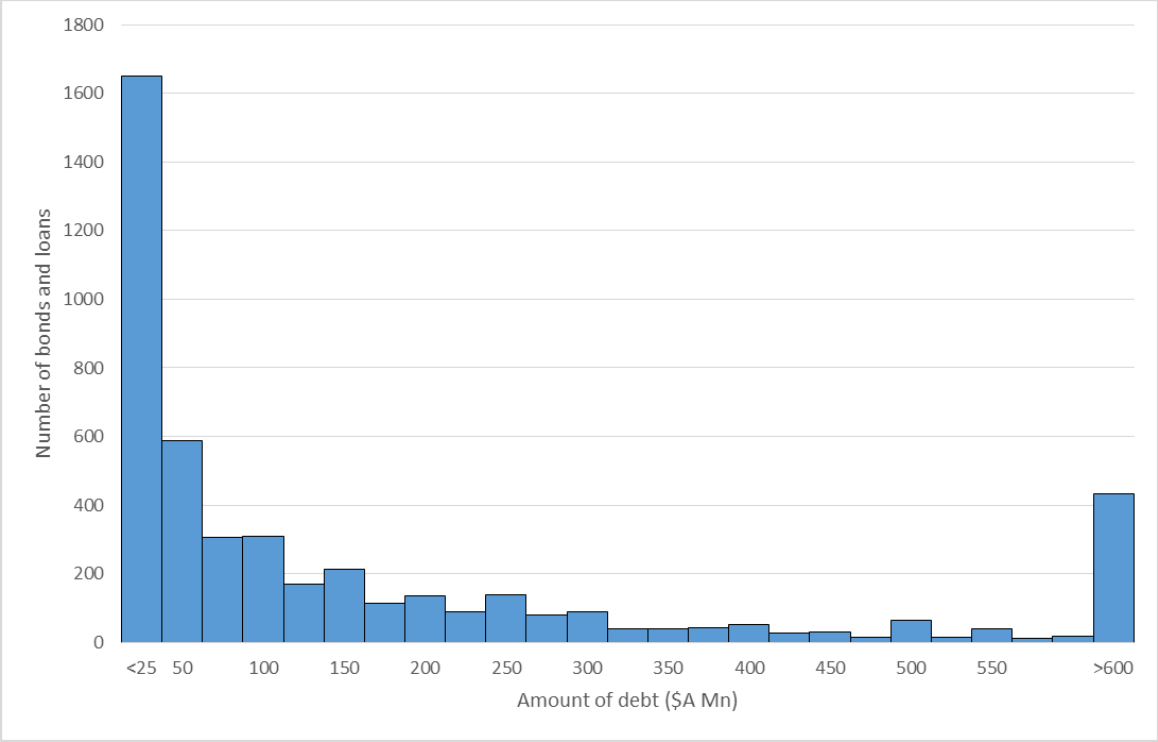
65. This section contains descriptive statistics for our full sample. More detailed analysis of various subsamples can be found in the subsequent sections.

## 4.1 Amount of debt outstanding

66. The total amount of debt outstanding across all 4697 debts is A$ 988,491 million. The mean amount outstanding per debt is A$ 210 million, while the median amount is A$ 57 million and the mode is A$ 10 million. Excluding perpetual bonds, the minimum loan is A$ 0.15 million and the maximum loan is A$ 5284 million.

67. Figure 8 shows a histogram of the number of debts against outstanding debt amounts at A$ 25 million increments. The histogram shows that the distribution of outstanding debt amounts is positively skewed with decreasing frequency of outstanding debt from the peak at the category of debt with less than A$ 25 million outstanding. An interesting observation is that the debt frequencies appear to be alternating across the categories, with the ones corresponding to multiples of A$ 50 million usually being more frequent than their adjacent categories.

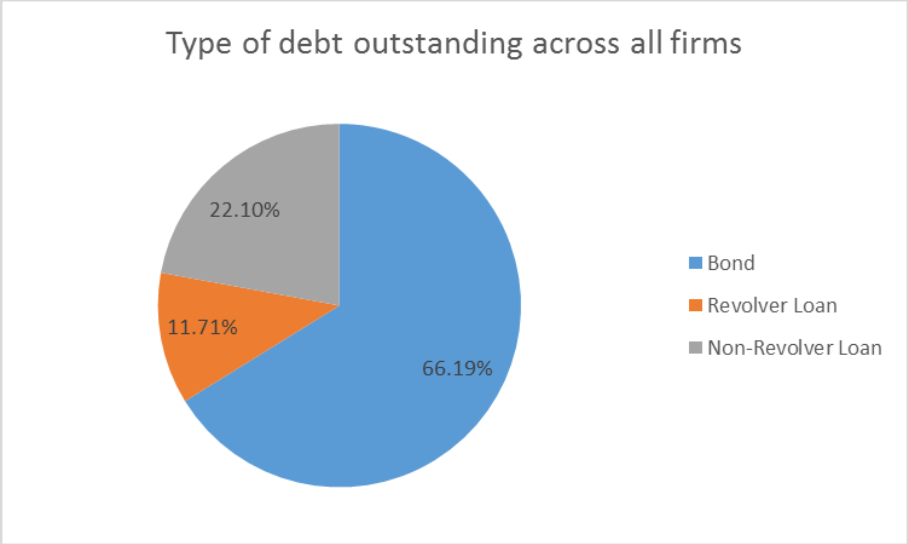
**Figure 8: Histogram of number of debts against amounts outstanding**



## 4.2 Type of debt outstanding

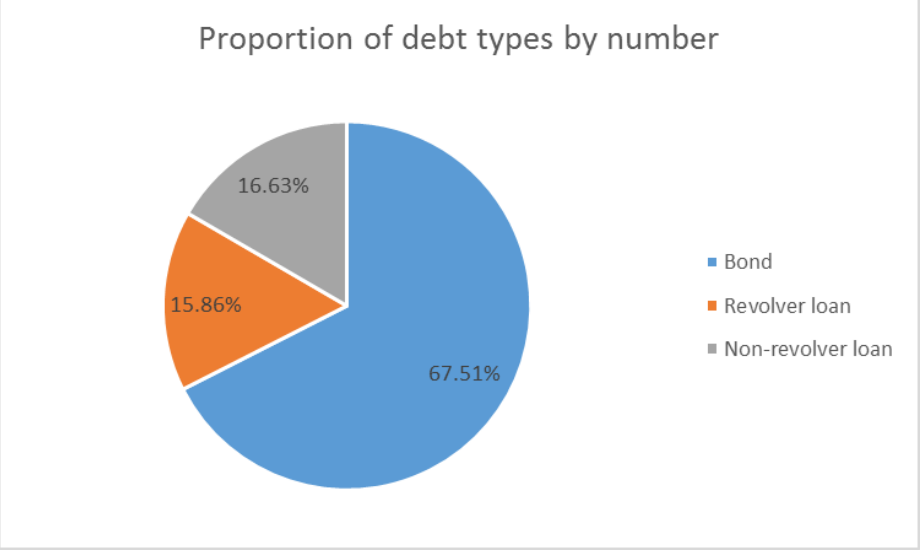
68. About 66% of the amount of debt outstanding in our sample is in the form of bonds, while the remaining 34% are in the form of bank loans. Of these, 12% of the total amount of debt outstanding is in the form of revolver loans and 22% is in the form of non-revolver loans. This split is illustrated in Figure 9.

**Figure 9: Type of debt outstanding across all firms in the sample**




69. In terms of the number of debts issued, 68% of the debts in our sample are in the form of bonds, 16% are revolver loans, and 17% are non-revolver loans. Figure 10 shows these proportions of the number of debts outstanding for each type.

**Figure 10: Proportion of each debt type by number**



70. The numerical values behind Figure 9 and Figure 10 are set out in Table 2, as well as the total amount of debt outstanding for each of the three types.

**Table 2: Amount and number of each debt type**

| | Bond | Revolver Loan | Non-revolver Loan | Total |
|---|---|---|---|---|
| Amount of debt (AUD millions) | 654,078.5 | 116,015.8 | 218,396.6 | 988,490.9 |
| Percentage | 66.19% | 11.71% | 22.10% | 100.00% |
| Number of debts | 3171 | 745 | 781 | 4697 |
| Percentage | 67.51% | 15.86% | 16.63% | 100.00% |

**Values in A$ Millions*

## 4.3 Year of debt issuance

71. Majority of the outstanding debt in the sample was issued in recent years, with the percentage of debt issued generally increasing from 2008 onwards. Outstanding debt issued in the last three calendar years make up 67% of all debt outstanding in our sample (21%, 23%, and 23% in 2012, 2013, and 2014 respectively).

72. The fact that the amount of debt outstanding has increased for debts issued in more recent calendar years is expected, since most of the short-term debts issued in earlier years would have been cleared, and would thus not appear in our search for active bonds and loans, leading to the observed reduction in outstanding debt for those years.

73. The year of debt issuance for each of the three types of outstanding debt is shown in Figure 11, along with the percentages of outstanding debt. The amount of debt outstanding against each year of issuance is shown in Table 3.

**Figure 11: Year of debt issuance across all firms**

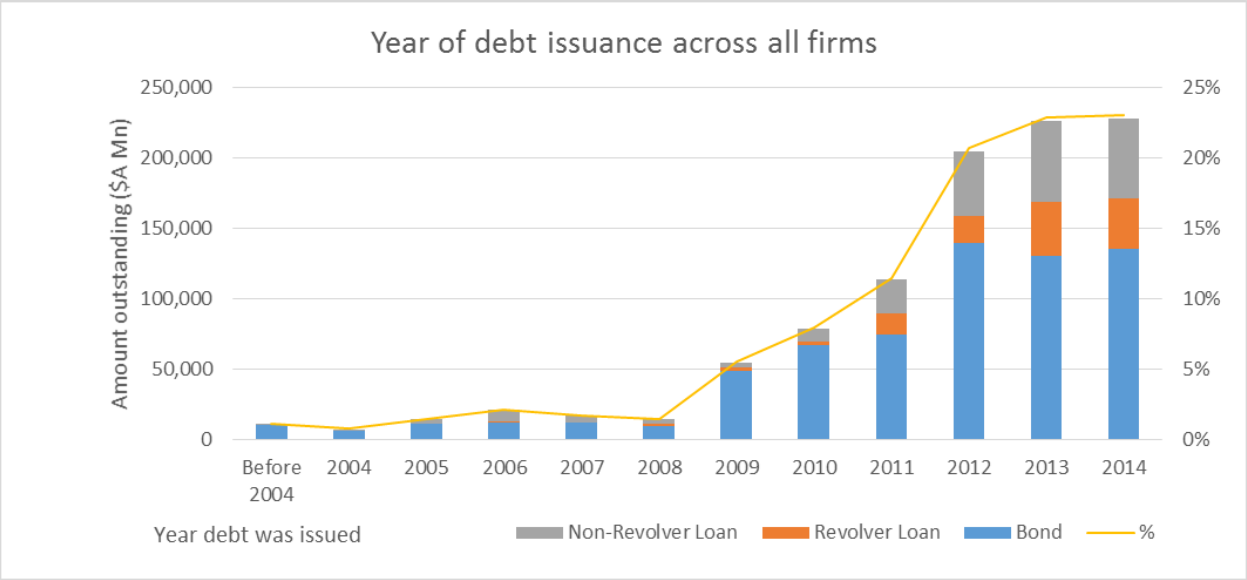



**Table 3: Year of debt issuance for all debts in the sample**

| Issue Year | Bond | Revolver Loan | Non-Revolver Loan | Total Loan | Amount Outstanding | % |
|---|---|---|---|---|---|---|
| **Before 2004** | 9,934.3 | 7.1 | 565.9 | 573.0 | 10,507.3 | 1.1% |
| **2004** | 6,291.8 | 5.6 | 783.0 | 788.5 | 7,080.4 | 0.7% |
| **2005** | 10,730.1 | 0.0 | 3,471.4 | 3,471.4 | 14,201.5 | 1.4% |
| **2006** | 12,084.5 | 247.4 | 8,416.2 | 8,663.7 | 20,748.2 | 2.1% |
| **2007** | 11,351.7 | 451.0 | 4,608.9 | 5,059.9 | 16,411.5 | 1.7% |
| **2008** | 9,465.9 | 1,096.8 | 3,449.0 | 4,545.8 | 14,011.7 | 1.4% |
| **2009** | 48,088.9 | 2,823.8 | 3,759.5 | 6,583.3 | 54,672.2 | 5.5% |
| **2010** | 66,987.2 | 2,664.1 | 9,127.7 | 11,791.7 | 78,779.0 | 8.0% |
| **2011** | 74,459.6 | 14,756.9 | 24,259.9 | 39,016.8 | 113,476.5 | 11.5% |
| **2012** | 139,266.0 | 19,223.8 | 46,190.5 | 65,414.3 | 204,680.3 | 20.7% |
| **2013** | 130,438.3 | 38,341.7 | 57,172.0 | 95,513.7 | 225,952.1 | 22.9% |
| **2014** | 134,980.0 | 36,397.7 | 56,592.5 | 92,990.2 | 227,970.3 | 23.1% |
| **Total** | **654,078.5** | **116,015.8** | **218,396.6** | **334,412.4** | **988,490.9** | **100.0%** |

**Values in A$ Millions*

## 4.4 Debt term

74. Most of the debts in our sample are in the form of short-term debts. 63% of the amount of outstanding debt in our sample was issued with a term of 6 years or less,

while 94% of the outstanding debt in our sample was issued with a term of 16 years or less.

75. This is illustrated in Figure 12, which shows the amount of debt outstanding for various debt terms in years, along with their corresponding percentages. The figure shows that the distribution of debt terms is positively skewed, and that the proportion of debt in the form of bonds greatly increases for debt terms of 10 years or more. However, an exception occurs at the 15-16 year category, which has A$ 27,800 million of debt outstanding in the form of non-revolver loans. Of these, A$ 17,820 million is attributed to Ichthys LNG Pty Ltd, which issued all of their 14 bonds in December 2012 and January 2013, with maturities in December 2028.

76. Table 4 shows the amount of outstanding debt for various debt terms, as well as their corresponding percentages and cumulative percentages.

**Figure 12: Debt term at issuance across all firms**

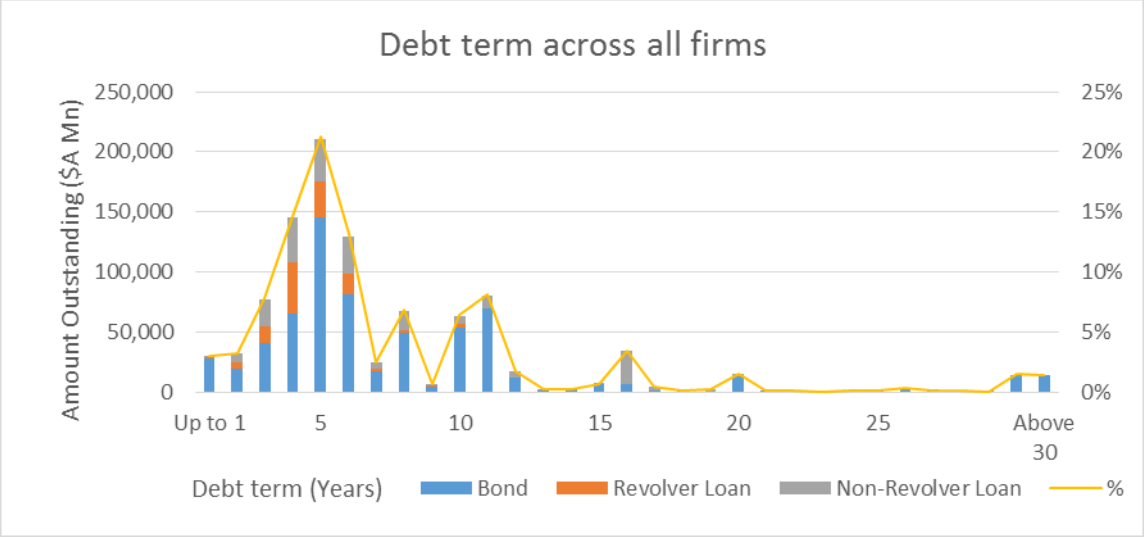



**Table 4: Debt term at issuance for the whole sample**

| Debt Term (Yrs) | Bond | Revolver Loan | Non-Revolver Loan | Total Loan | Amount Outstanding | % | Cumulative Percentage |
|---|---|---|---|---|---|---|---|
| Up to 1 | 28,217.6 | 997.0 | 738.8 | 1,735.8 | 29,953.5 | 3.0% | 3.0% |
| 2 | 19,502.1 | 4,615.8 | 7,861.4 | 12,477.1 | 31,979.3 | 3.2% | 6.3% |
| 3 | 40,997.9 | 13,274.7 | 22,994.3 | 36,269.0 | 77,266.9 | 7.8% | 14.1% |
| 4 | 65,223.2 | 42,854.8 | 37,190.5 | 80,045.3 | 145,268.4 | 14.7% | 28.8% |
| 5 | 145,760.5 | 29,502.9 | 35,086.1 | 64,589.0 | 210,349.5 | 21.3% | 50.1% |
| 6 | 81,275.2 | 17,548.1 | 30,912.0 | 48,460.1 | 129,735.3 | 13.1% | 63.2% |
| 7 | 17,594.1 | 1,676.5 | 5,532.8 | 7,209.3 | 24,803.4 | 2.5% | 65.7% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8 | 49,517.9 | 1,571.3 | 16,579.7 | 18,151.0 | 67,668.9 | 6.8% | 72.5% |
| 9 | 4,127.2 | 1,209.3 | 1,301.5 | 2,510.8 | 6,638.0 | 0.7% | 73.2% |
| 10 | 53,616.3 | 2,551.9 | 7,356.7 | 9,908.6 | 63,524.9 | 6.4% | 79.6% |
| 11 | 69,549.8 | 20.0 | 11,000.6 | 11,020.6 | 80,570.4 | 8.2% | 87.8% |
| 12 | 11,605.2 | 167.1 | 5,031.2 | 5,198.3 | 16,803.5 | 1.7% | 89.5% |
| 13 | 1,550.2 | 0.0 | 564.4 | 564.4 | 2,114.6 | 0.2% | 89.7% |
| 14 | 2,423.0 | 5.6 | 0.0 | 5.6 | 2,428.6 | 0.2% | 89.9% |
| 15 | 5,968.5 | 0.0 | 206.0 | 206.0 | 6,174.5 | 0.6% | 90.6% |
| 16 | 6,523.0 | 21.0 | 27,800.0 | 27,821.0 | 34,344.0 | 3.5% | 94.0% |
| 17 | 868.8 | 0.0 | 2,984.1 | 2,984.1 | 3,852.9 | 0.4% | 94.4% |
| 18 | 158.0 | 0.0 | 716.1 | 716.1 | 874.1 | 0.1% | 94.5% |
| 19 | 514.0 | 0.0 | 1,484.8 | 1,484.8 | 1,998.8 | 0.2% | 94.7% |
| 20 | 12,384.9 | 0.0 | 2,255.0 | 2,255.0 | 14,639.9 | 1.5% | 96.2% |
| 21 | 1,452.5 | 0.0 | 0.0 | 0.0 | 1,452.5 | 0.1% | 96.4% |
| 22 | 493.8 | 0.0 | 176.2 | 176.2 | 670.0 | 0.1% | 96.4% |
| 23 | 132.6 | 0.0 | 300.9 | 300.9 | 433.5 | 0.0% | 96.5% |
| 24 | 417.9 | 0.0 | 214.0 | 214.0 | 631.9 | 0.1% | 96.5% |
| 25 | 1,444.0 | 0.0 | 0.0 | 0.0 | 1,444.0 | 0.1% | 96.7% |
| 26 | 2,787.7 | 0.0 | 0.0 | 0.0 | 2,787.7 | 0.3% | 97.0% |
| 27 | 635.2 | 0.0 | 109.4 | 109.4 | 744.6 | 0.1% | 97.0% |
| 28 | 1,018.8 | 0.0 | 0.0 | 0.0 | 1,018.8 | 0.1% | 97.1% |
| 29 | 335.4 | 0.0 | 0.0 | 0.0 | 335.4 | 0.0% | 97.2% |
| 30 | 14,420.4 | 0.0 | 0.0 | 0.0 | 14,420.4 | 1.5% | 98.6% |
| Above 30 | 13,562.9 | 0.0 | 0.0 | 0.0 | 13,562.9 | 1.4% | 100.0% |
| **Total** | **654,078.5** | **116,015.8** | **218,396.6** | **334,412.4** | **988,490.9** | **100.0%** | |

**Numbers in AUD millions*

77. The simple average debt term of all the debts in our sample is 8.7 years. When weighted according to the amount of debt outstanding, the weighted average debt term in our sample is 7.3 years.

78. The weighted average and simple average debt terms for each of the three types of debt are shown in Table 5. The table shows that the weighted average and simple average debt terms are considerably higher for bonds. This is to be expected because, as shown in Figure 12, bonds make up a substantially higher proportion of long-term debt as compared to short-term debt. On the other hand, the weighted average and simple average debt terms for revolver loans are the lowest of the three types because, as shown in Table 4, no revolver loans have a debt term exceeding 16 years.

**Table 5: Average debt term at issuance for different debt types**

| | Bond | Revolver Loan | Non-revolver Loan | Overall |
|---|---|---|---|---|
| Weighted average debt term (Years) | 7.91 | 4.15 | 7.08 | 7.28 |
| Simple average debt term (Years) | 10.62 | 3.98 | 5.58 | 8.69 |

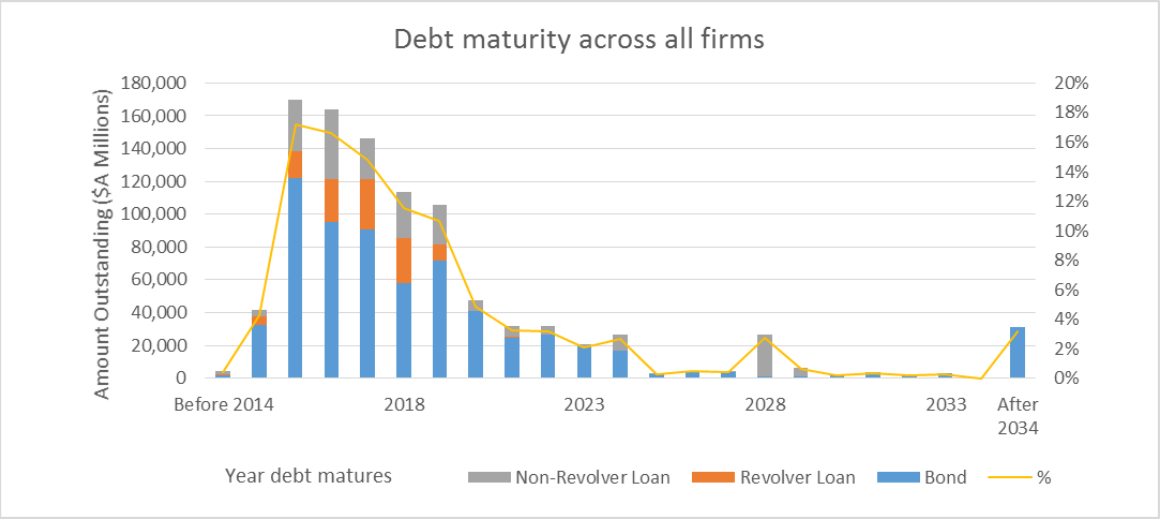
## 4.5 Debt maturity

79. As identified in Section 4.4, 63% of the outstanding debts in our sample were issued with a debt term of 6 years or less. This observation also affects the observed debt maturities in our sample, with 75% of all outstanding debt maturing in 2019 or earlier, while 91% of all outstanding debt matures in 2024 or earlier.

80. Figure 13 shows the amount and percentage of debt maturing in each calendar year for all outstanding debt in our sample. The figure shows that the distribution of debt maturity is positively skewed with the mode at 2015. Similar to our observations in Section 4.4 regarding debt terms, it can be seen that the proportion of outstanding debt in the form of bonds increases considerably for maturity years 2020 and onwards with an exception at 2028. For the latter, a disproportionate amount is in the form of non-revolver loans and can be attributed to the same 14 bonds issued by Ichthys LNG Pty Ltd with maturities in December 2028.

81. Table 6 shows the numerical values for outstanding debt maturing in each year, as well as their corresponding percentages and cumulative percentages. The table shows that a small amount of debt has maturity dates listed before 2014, which refer to overdue debts that continue to remain active past their maturity dates.

**Figure 13: Year of debt maturity across all firms**



## Table 6: Year of debt maturity across all firms

| Maturity Year | Bond | Revolver Loan | Non-Revolver Loan | Total Loan | Amount Outstanding | % | Cumulative Percentage |
|---|---|---|---|---|---|---|---|
| Before 2014 | 1,943.8 | 320.6 | 1,976.7 | 2,297.3 | 4,241.1 | 0.4% | 0.4% |
| 2014 | 32,272.0 | 5,073.2 | 4,390.1 | 9,463.4 | 41,735.4 | 4.2% | 4.7% |
| 2015 | 122,136.3 | 15,977.5 | 31,494.3 | 47,471.8 | 169,608.1 | 17.2% | 21.8% |
| 2016 | 95,227.4 | 25,873.9 | 42,920.0 | 68,793.9 | 164,021.3 | 16.6% | 38.4% |
| 2017 | 90,854.9 | 30,591.8 | 25,014.9 | 55,606.7 | 146,461.5 | 14.8% | 53.2% |
| 2018 | 58,230.2 | 27,396.2 | 28,162.6 | 55,558.9 | 113,789.1 | 11.5% | 64.7% |
| 2019 | 71,441.1 | 10,058.2 | 24,159.2 | 34,217.4 | 105,658.4 | 10.7% | 75.4% |
| 2020 | 40,927.1 | 299.9 | 6,398.9 | 6,698.8 | 47,625.9 | 4.8% | 80.2% |
| 2021 | 24,754.4 | 403.5 | 6,593.7 | 6,997.2 | 31,751.7 | 3.2% | 83.4% |
| 2022 | 26,668.6 | 21.0 | 4,778.6 | 4,799.6 | 31,468.2 | 3.2% | 86.6% |
| 2023 | 19,363.1 | 0.0 | 994.8 | 994.8 | 20,357.9 | 2.1% | 88.7% |
| 2024 | 16,948.4 | 0.0 | 9,423.5 | 9,423.5 | 26,371.9 | 2.7% | 91.4% |
| 2025 | 2,391.8 | 0.0 | 222.5 | 222.5 | 2,614.3 | 0.3% | 91.6% |
| 2026 | 3,951.1 | 0.0 | 435.4 | 435.4 | 4,386.5 | 0.4% | 92.1% |
| 2027 | 3,723.3 | 0.0 | 214.0 | 214.0 | 3,937.3 | 0.4% | 92.5% |
| 2028 | 1,331.0 | 0.0 | 25,449.6 | 25,449.6 | 26,780.6 | 2.7% | 95.2% |
| 2029 | 988.6 | 0.0 | 5,097.7 | 5,097.7 | 6,086.4 | 0.6% | 95.8% |
| 2030 | 2,024.1 | 0.0 | 173.3 | 173.3 | 2,197.4 | 0.2% | 96.0% |
| 2031 | 3,079.2 | 0.0 | 396.8 | 396.8 | 3,476.1 | 0.4% | 96.4% |
| 2032 | 1,864.4 | 0.0 | 100.0 | 100.0 | 1,964.4 | 0.2% | 96.6% |
| 2033 | 2,728.3 | 0.0 | 0.0 | 0.0 | 2,728.3 | 0.3% | 96.8% |
| 2034 | 48.1 | 0.0 | 0.0 | 0.0 | 48.1 | 0.0% | 96.8% |
| After 2034 | 31,181.0 | 0.0 | 0.0 | 0.0 | 31,181.0 | 3.2% | 100.0% |
| **Total** | **654,078.5** | **116,015.8** | **218,396.6** | **334,412.4** | **988,490.9** | **100.0%** | |

**Numbers in AUD millions*

## Table 7: Average time to maturity for different debt types

| | Bond | Revolver Loan | Non-revolver Loan | Overall |
|---|---|---|---|---|
| Weighted average time to maturity | 5.04 | 2.55 | 4.81 | 4.69 |
| Simple average time to maturity | 6.61 | 2.17 | 3.16 | 5.38 |

82. Figure 14 shows the distribution of the weighted average debt maturities for the 619 parent companies in our sample, while Figure 15 shows their corresponding simple average debt maturities. Both figures also display the cumulative percentages for the variable of interest.

83. Both charts show positively-skewed distributions with modes at the 2-3 year category. In both charts, it can be seen that a small number of firms have average maturities below zero due to overdue debts. Approximately 85% of firms have a weighted average debt maturity up to 5 years, with a similar figure applying to the simple average debt maturity.

**Figure 14: Weighted average debt maturity for all parent companies**

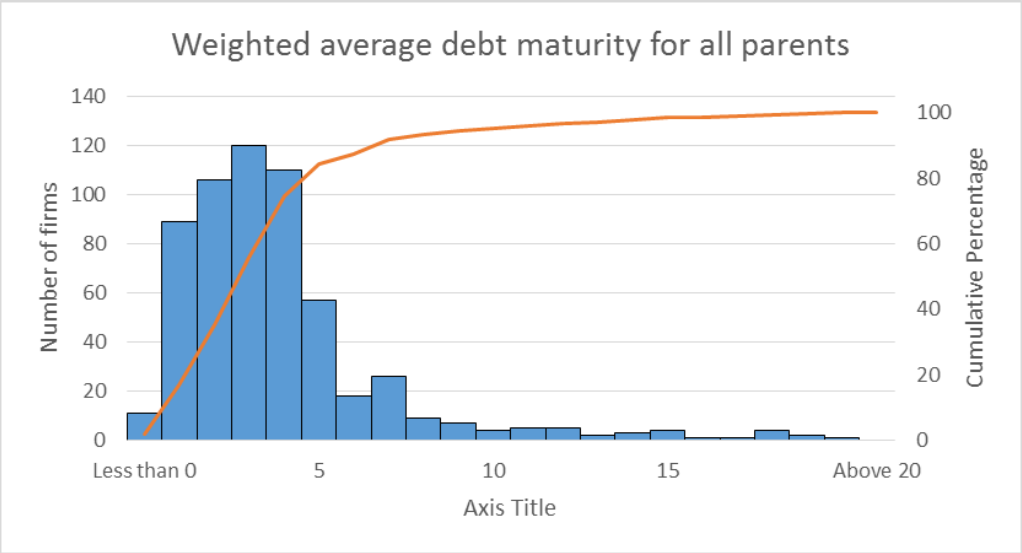
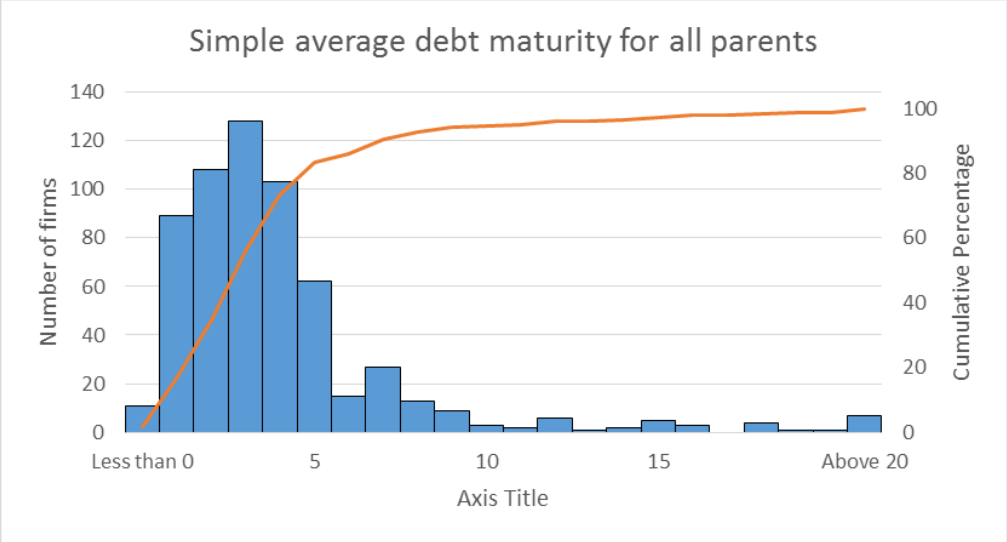



**Figure 15: Simple average debt maturity for all parent companies**



## 4.6 Debt staggering

84. Debt staggering refers to the structuring of debt by a firm, such that its various debts have different maturity dates, as opposed to having all of the debts being due at the same time.

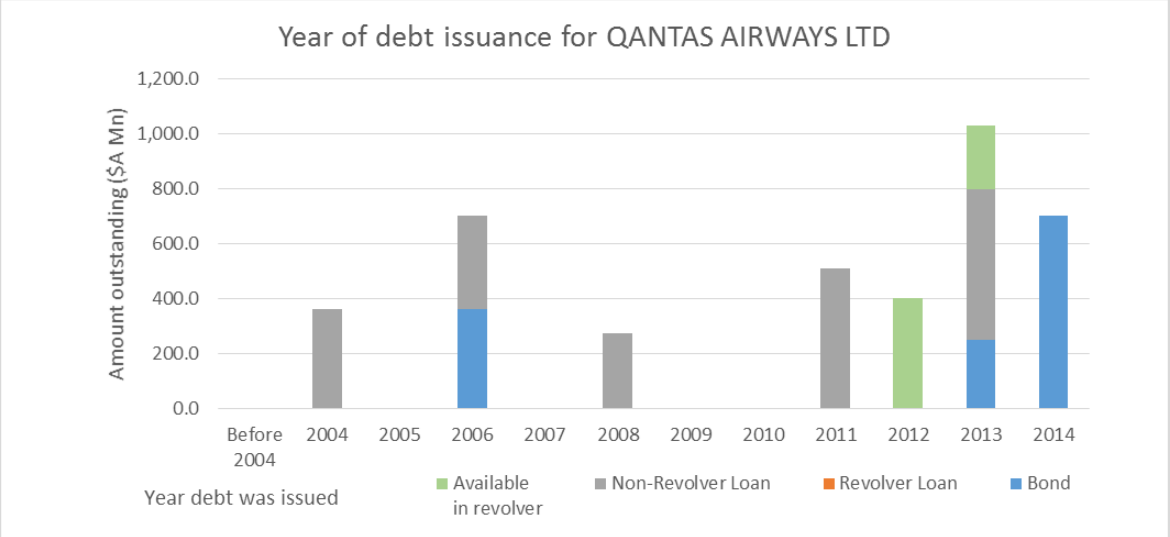
85. This subsection shows the years of debt issuance and years of debt maturity for two example firms: Qantas Airways Ltd and Sun Group Finance Pty Ltd. The charts for the former show that the year of debt issuance and year of debt maturity are both staggered. The charts for the latter show that all five of the firm's debts were issued in 2014, but the firm nevertheless elected to stagger its debts by having two of its debts due in 2016, another two due in 2017, and one due in 2020. Both firms staggered their debts even when the types of debt were taken into account, since each debt type was due in different years. The corresponding data for the full list of all 82 parent companies in our sample that issued at least one debt with a Long Term Local Currency Issuer Credit Rating can be found in the Appendix.

86. Section 11 contains further analysis on how debt staggering can be quantified and introduces three statistical measures that can be used to compare debt staggering across parent companies.

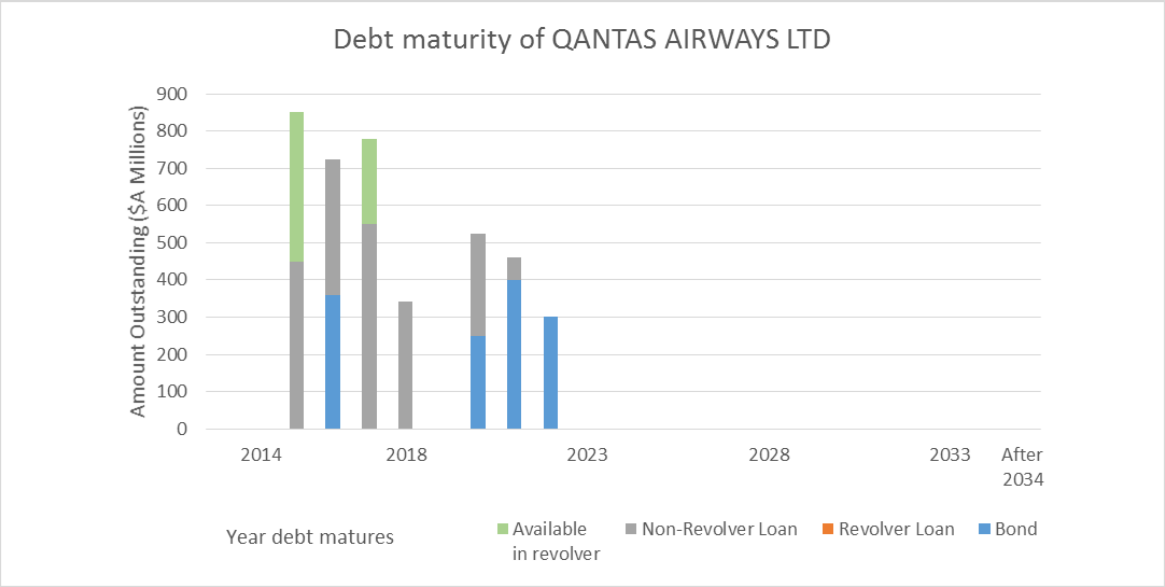
### 4.6.1 Qantas Airways Ltd

87. Figure 16 shows the year of debt issuance for debts issued by Qantas Airways Ltd, while Figure 17 shows the year of debt maturity for those debts. The weighted average and simple average debt term and time to maturity for said debts are listed in Table 8. The list of debts issued by Qantas Airways Ltd, as well as the outstanding amounts and years to maturity, are listed in Table 9.

**Figure 16: Year of debt issuance for Qantas Airways Ltd**



## Figure 17: Debt maturity of QANTAS AIRWAYS LTD




## Table 8: Average debt term and time to maturity for Qantas Airways Ltd

| | Bond | Revolver Loan | Non-revolver Loan | Overall |
|---|---|---|---|---|
| Number of debt | 4 | 2 | 6 | 12 |
| Amount outstanding | 1,310.29 | 0.00 | 2,040.40 | 3,350.68 |
| Weighted average debt term | 8.06 | N/A | 8.02 | 8.04 |
| Simple average debt term | 8.01 | 3.51 | 27.02 | 7.76 |
| Weighted average time to maturity | 5.22 | N/A | 2.65 | 3.66 |
| Simple average time to maturity | 5.31 | 1.72 | 10.32 | 3.77 |

## Table 9: List of debts issued by Qantas Airways Ltd

| Index | Parent company | Type | Outstanding Amount | Time to maturity |
|---|---|---|---|---|
| 1 | QANTAS AIRWAYS LTD | Bond | 400.00 | 6.64 |
| 2 | QANTAS AIRWAYS LTD | Bond | 250.00 | 5.52 |
| 3 | QANTAS AIRWAYS LTD | Bond | 300.00 | 7.58 |
| 4 | QANTAS AIRWAYS LTD | Bond | 360.29 | 1.49 |
| 5 | QANTAS AIRWAYS LTD | Non-revolver loan | 362.95 | 1.66 |
| 6 | QANTAS AIRWAYS LTD | Non-revolver loan | 550.00 | 2.48 |
| 7 | QANTAS AIRWAYS LTD | Revolver loan | 0.00* | 0.96 |
| 8 | QANTAS AIRWAYS LTD | Revolver loan | 0.00* | 2.48 |
| 9 | QANTAS AIRWAYS LTD | Non-revolver loan | 61.57 | 6.56 |

| | | | | |
|---|---|---|---|---|
| 10 | QANTAS AIRWAYS LTD | Non-revolver loan | 274.88 | 6.00 |
| 11 | QANTAS AIRWAYS LTD | Non-revolver loan | 341.00 | 3.43 |
| 12 | QANTAS AIRWAYS LTD | Non-revolver loan | 450.00 | 0.49 |

**There is A$400 million and A$230 million available in revolver loans 7 and 8 respectively*

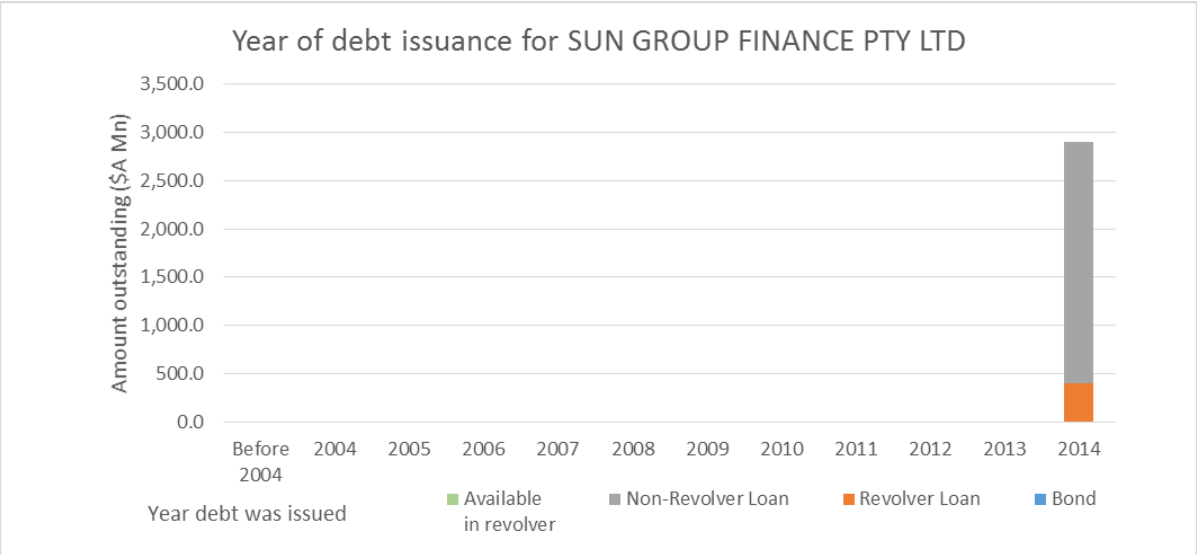
### 4.6.2 Sun Group Finance Pty Ltd

88. Figure 18 shows the year of debt issuance for debts issued by Sun Group Finance Pty Ltd, while Figure 19 shows the year of debt maturity for those debts. The weighted average and simple average debt term and time to maturity for said debts are listed in Table 11. The list of debts issued by Sun Group Finance Pty Ltd, as well as the outstanding amounts and years to maturity, are listed in Table 10.

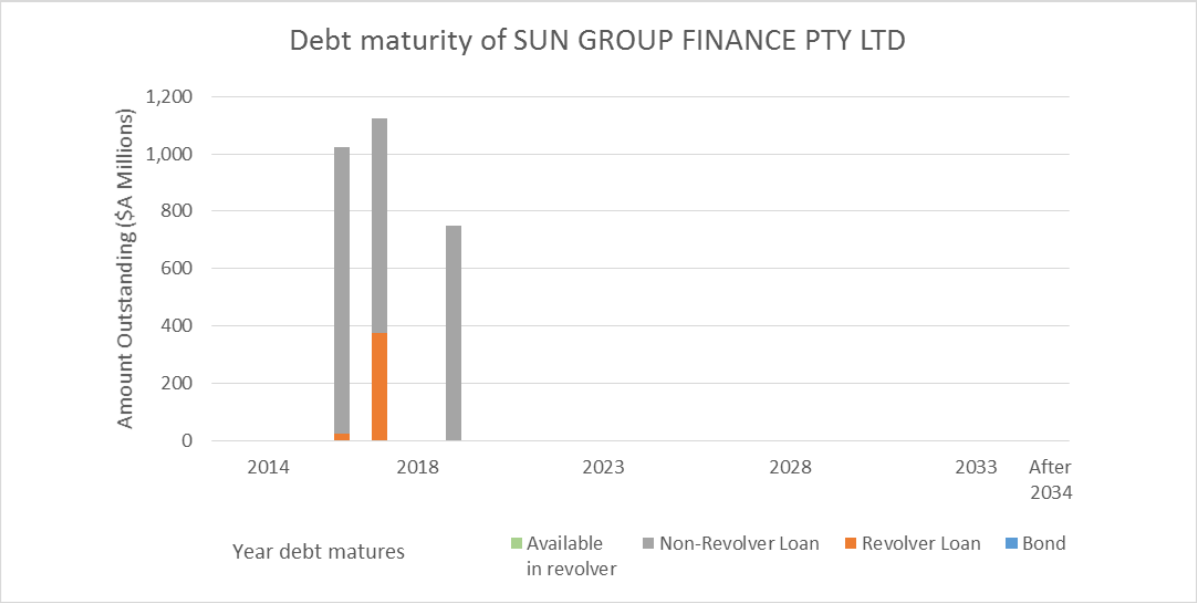
**Table 10: Average debt term and time to maturity for Sun Group Finance Pty Ltd**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 2 | 3 | 5 |
| Amount Outstanding ($A Mn) | 0.00 | 400.00 | 2,500.00 | 2,900.00 |
| Weighted average debt term | N/A | 2.90 | 3.16 | 3.13 |
| Simple average debt term | N/A | 2.47 | 4.95 | 2.97 |
| Weighted average time to maturity | N/A | 2.64 | 2.90 | 2.86 |
| Simple average time to maturity | N/A | 2.20 | 4.55 | 2.70 |

**Figure 18: Year of debt issuance for Sun Group Finance Pty Ltd**



## Figure 19: Debt maturity of Sun Group Finance Pty Ltd




## Table 11: Average debt term and time to maturity for Sun Group Finance Pty Ltd

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 2 | 3 | 5 |
| Amount Outstanding ($A Mn) | 0.00 | 400.00 | 2,500.00 | 2,900.00 |
| Weighted average debt term | N/A | 2.90 | 3.16 | 3.13 |
| Simple average debt term | N/A | 2.47 | 4.95 | 2.97 |
| Weighted average time to maturity | N/A | 2.64 | 2.90 | 2.86 |
| Simple average time to maturity | N/A | 2.20 | 4.55 | 2.70 |

## Table 12: List of debts issued by Sun Group Finance Pty Ltd

| Index | Parent company | Type | Outstanding Amount | Time to maturity |
|---|---|---|---|---|
| 1 | SUN GROUP FINANCE PTY LTD | Non-revolver loan | 750.00 | 2.70 |
| 2 | SUN GROUP FINANCE PTY LTD | Non-revolver loan | 750.00 | 4.70 |
| 3 | SUN GROUP FINANCE PTY LTD | Revolver loan | 375.00 | 2.70 |
| 4 | SUN GROUP FINANCE PTY LTD | Non-revolver loan | 1,000.00 | 1.70 |
| 5 | SUN GROUP FINANCE PTY LTD | Revolver loan | 25.00 | 1.70 |

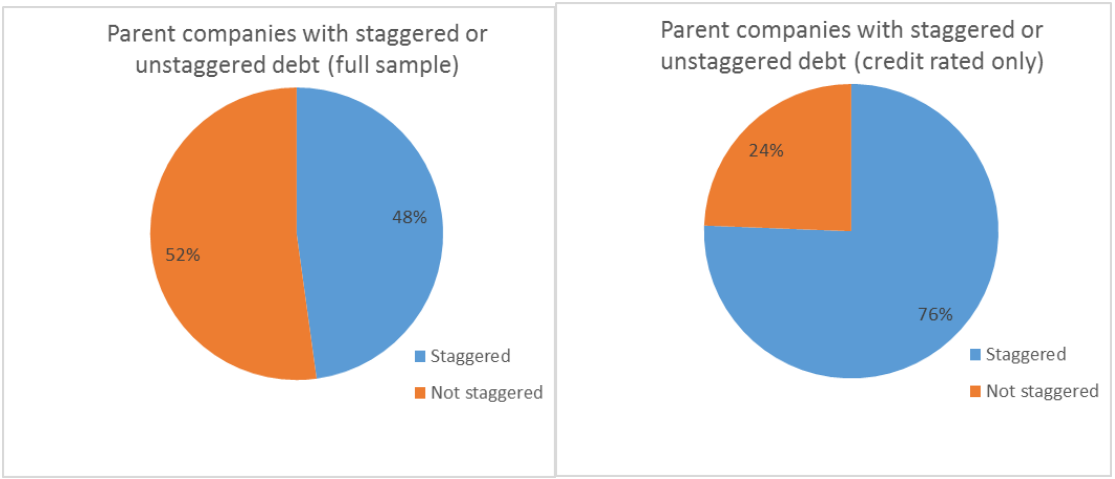
### 4.6.3 Debt staggering by parent companies

89. Of the 619 parent companies in our sample, 323 (52%) had all of their debts due at the same time, while 296 (48%) used some form of debt staggering. Among the 82 parent companies in our sample that issued at least one debt with a credit rating, however, only 20 (24%) had all of their debts due at the same time, while the remaining 62 (76%) had their debts staggered to varying extents. This is illustrated in Figure 20 below. This suggests that debt staggering is an important element of a debt management strategy for businesses seeking to raise debt of a kind that requires a credit rating (generally public debt raising).

90. It is also important to note that a primary reason for staggering debt is to avoid a situation where a large amount of debt is falling due in the immediate future (e.g., in the next 12 months) which creates refinance risk. In this context, a firm might have zero debt staggering but still have no debt falling due for 5 years if its only debt outstanding matures beyond 5 years. Such a firm may not have staggered debt but it does have the opportunity to raise new debt prior to the existing debt coming due. In this sense, it has the 'option to stagger' its debt.

91. Of the 9 firms with credit ratings and that have only one debt issuance (i.e., do 'not stagger' their debt), four of these have sub investment grade credit ratings and the average remaining maturity of the single debt issuance for the other 5 firms is 6.9 years (giving those businesses the opportunity to issue more debt well in advance of their existing debt falling due). A detailed description of the statistics that we used to measure debt staggering can be found in Section 11.

**Figure 20: Parent companies with staggered or unstaggered debts**



# 5 Industry sectors and competitiveness

## 5.1 Industry classification

92. The issuers in the sample fall into 12 industry sectors, 65 industry groups, and 189 industry subgroups. Our analysis is restricted to the sectorial level since most of the industry groups and industry subgroups contain very few issuer companies, such that analyses at these levels are unlikely to yield useful information above studying the firms individually.

### 5.1.1 Amount of debt outstanding

93. The financial sector has the largest amount of debt outstanding at A$ 596,832 million, not including amounts still available in revolver loans. This represents 60% of the total amount of debt outstanding in our sample. In comparison, the sector with the second largest amount of debt outstanding, basic materials, only has A$ 76,655.3 million outstanding, which represents 8% of all outstanding debt. The other four sectors with at least 5% share of total outstanding debt are consumer non-cyclical, industrial, energy, and utilities.

94. The allocation of outstanding debt and relative percentages across industry sectors are shown in Figure 21 and Figure 22 respectively.

**Figure 21: Amount of debt outstanding by industry sector**

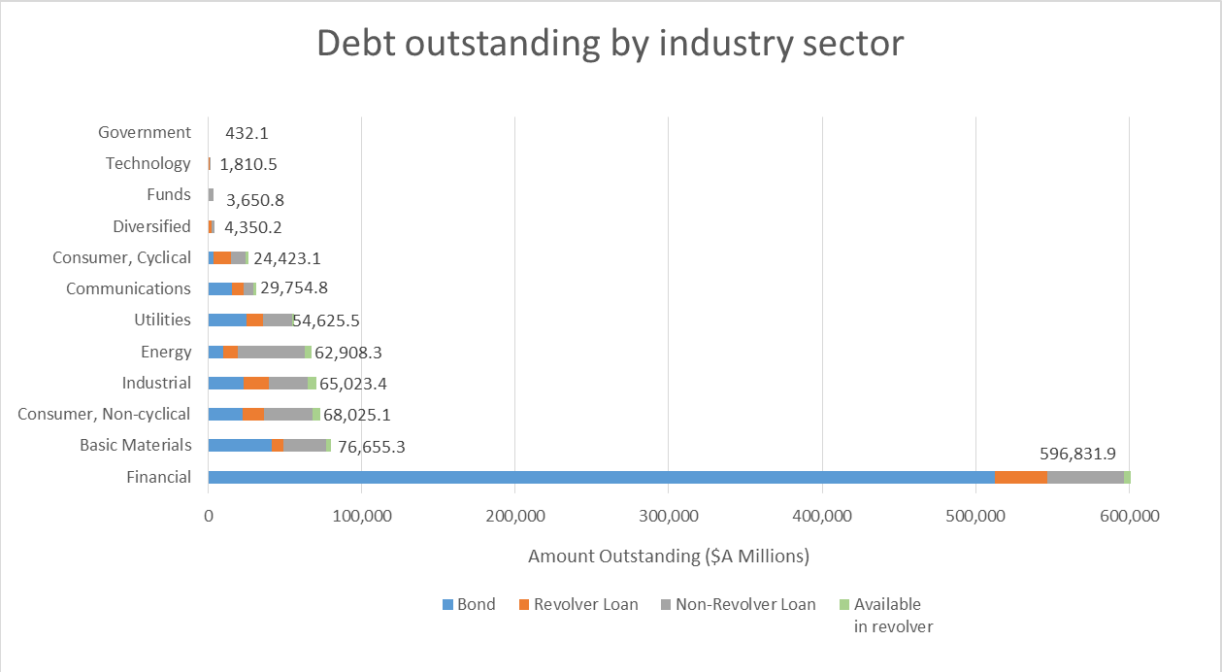
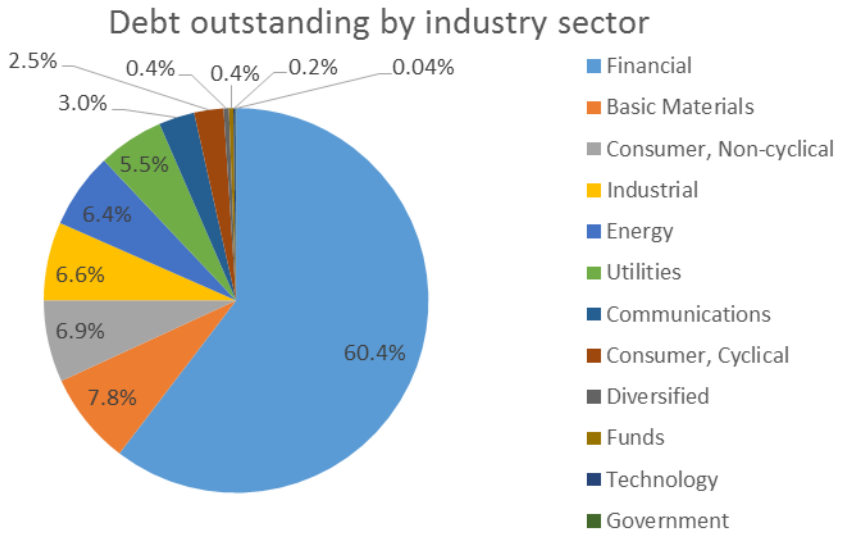


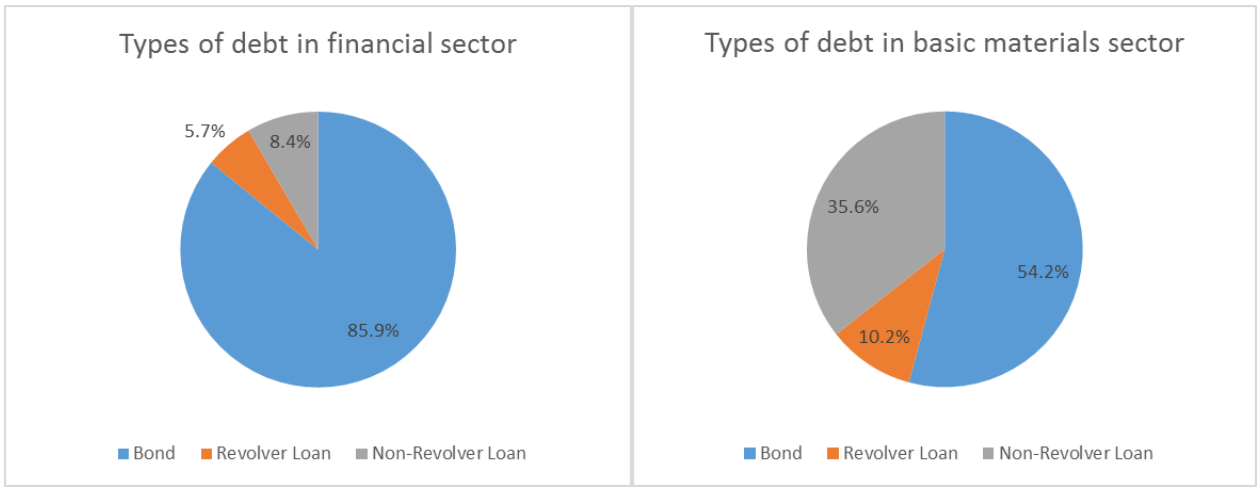
**Figure 22: Proportion of debt outstanding by industry sector**



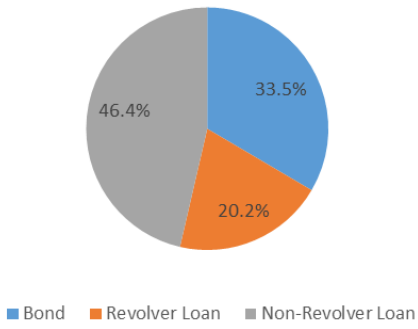

### 5.1.2 Type of debt outstanding

95. The next set of figures contain pie charts that break down the three types of debt in each of the twelve industry sectors. It can be seen that bonds form the largest type of debt in the financial, basic materials, utilities, and communications sector. Revolver loans form the largest type of debt in the consumer cyclical, diversified, and technology sectors. Non-revolver loans are largest in consumer non-cyclical, industrial, energy, funds, and government sectors.

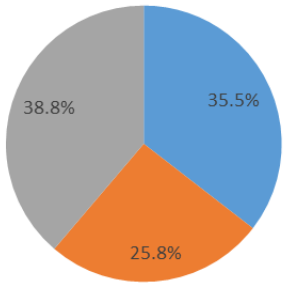
96. The amount of debt outstanding for each of the three types of debt in each industry sector, along with the corresponding percentages, are listed in Table 13.



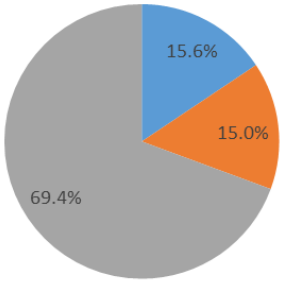
Types of debt in consumer, non-cyclical sector



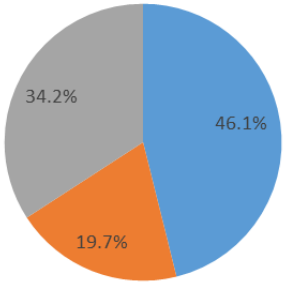

Types of debt in industrial sector



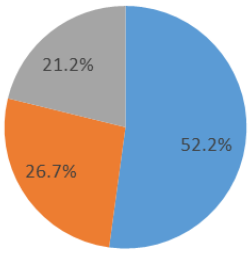

Types of debt in energy sector



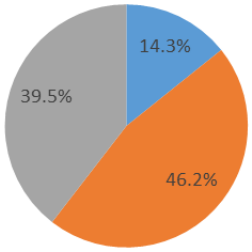

Types of debt in utilities sector

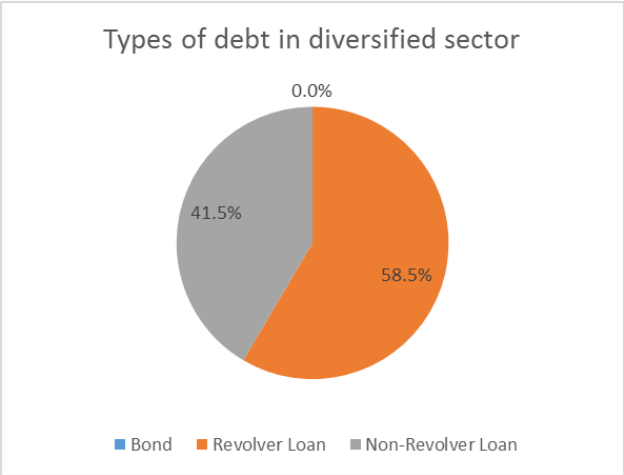


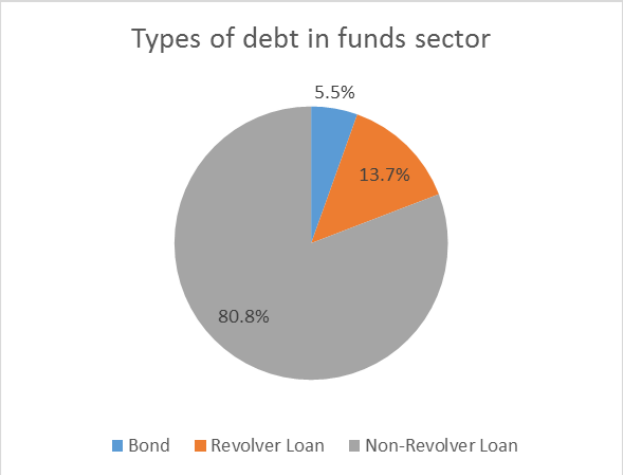

Types of debt in communications sector

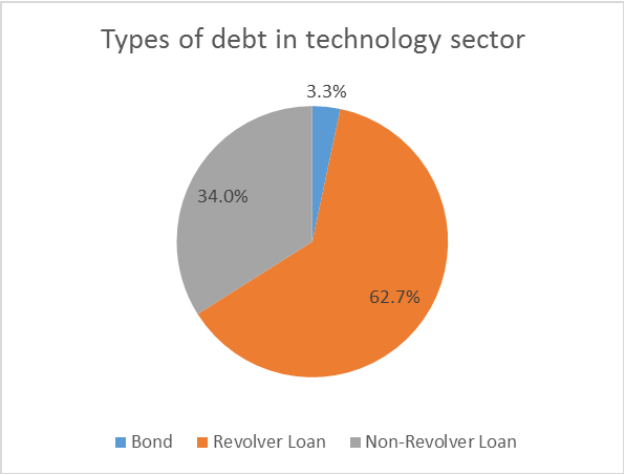



Types of debt in consumer, cyclical sector




Types of debt in diversified sector
0.0%
41.5%
58.5%
Bond
Revolver Loan
Non-Revolver Loan


Types of debt in funds sector
5.5%
13.7%
80.8%
Bond
Revolver Loan
Non-Revolver Loan


Types of debt in technology sector
3.3%
34.0%
62.7%
Bond
Revolver Loan
Non-Revolver Loan

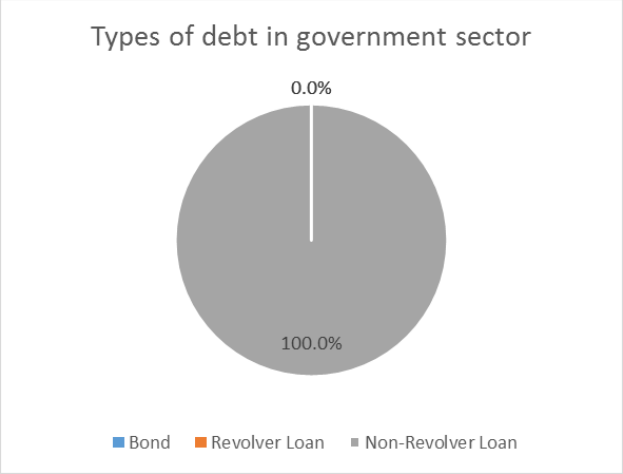

Types of debt in government sector
0.0%
100.0%
Bond
Revolver Loan
Non-Revolver Loan

**Table 13: Term of debt at issuance by industry sector**

| Debt Term (Yrs) | Bond | Revolver Loan | Non-Revolver Loan | Total Loan | Amount Outstanding | % |
|---|---|---|---|---|---|---|
| Basic Materials | 41,537.7 | 7,843.8 | 27,273.8 | 35,117.6 | 29,953.5 | 3.0% |
| Communications | 15,522.9 | 7,929.8 | 6,302.1 | 14,231.9 | 31,979.3 | 3.2% |
| Consumer, Cyclical | 3,481.6 | 11,287.7 | 9,653.8 | 20,941.5 | 77,266.9 | 7.8% |
| Consumer, Non-cyclical | 22,761.3 | 13,717.4 | 31,546.3 | 45,263.8 | 145,268.4 | 14.7% |
| Diversified | 0.0 | 2,544.5 | 1,805.6 | 4,350.2 | 210,349.5 | 21.3% |
| Energy | 9,823.5 | 9,443.8 | 43,641.1 | 53,084.8 | 129,735.3 | 13.1% |
| Financial | 512,435.6 | 34,076.7 | 50,319.6 | 84,396.3 | 24,803.4 | 2.5% |
| Funds | 200.0 | 500.0 | 2,950.8 | 3,450.8 | 67,668.9 | 6.8% |
| Government | 0.0 | 0.0 | 432.1 | 432.1 | 6,638.0 | 0.7% |
| Industrial | 23,065.3 | 16,760.4 | 25,197.8 | 41,958.2 | 63,524.9 | 6.4% |
| Technology | 60.0 | 1,135.5 | 615.0 | 1,750.5 | 80,570.4 | 8.2% |
| Utilities | 25,190.7 | 10,776.2 | 18,658.5 | 29,434.7 | 16,803.5 | 1.7% |
| **Total** | **654,078.5** | **116,015.8** | **218,396.6** | **334,412.4** | **988,490.9** | **100.0%** |

97. It should not be assumed that bank debt is always short term, or even shorter term than bonds. For example, the Energy sector has a high proportion of non-revolver loans but an average term of debt issuance of 13 years.

## 5.2 Industry competitiveness and the Herfindahl-Hirschman Index (HHI)

98. A competitive market is one that contains a large number of small firms with low market power selling undifferentiated products. In a competitive market, it is difficult for individual firms to raise their prices since buyers can easily switch their purchases from one firm to any of the other competitors.

99. Industries that feature a few firms with individually-high market shares tend to be less competitive because it is relatively more difficult for buyers to shift their purchases to other competitors, thus allowing these firms to influence market prices. The market shares of the firms in an industry can thus serve as an indicator of how competitive that industry is.

100. HHI assesses the competitiveness of an industry by measuring the sum of squared market shares (in percentages) of the firms in that industry. It ranges from a value of 1 to 10000, with a lower HHI representing a more competitive market. When there is only one firm in the industry, its squared market share is $100^2 = 10000$. When there are infinitely many small firms in the industry, their squared market shares will sum to the lowest value of 1.

101. Bloomberg does not keep track of the market shares of firms in Australian industries. As such, we derived estimates of the HHI for the industry sectors in our sample using an in-sample approach as follows:

    i. Obtain the sales revenue of all firms in the sample.

    ii. Sum the sales revenues of all firms in the same industry sector to obtain the total market size of each sector.

    iii. Divide the sales revenue of each firm by the amount obtained in Step ii, which yields the market share of the firm.

    iv. Take the sum of squared market shares of firms in the same industry sector calculated in Step iii, which results in the estimated HHI.

102. The problem with the above approach is that it fails to capture the market shares of firms outside the sample, which usually results in an overestimation of HHI. As such, the industry sectors are likely to be more competitive than we estimate them to be. In addition, these HHI estimates should not be applied to other studies since they are highly sample-dependent.

103. The formula used for calculating HHI is shown in Equation 1:

**Equation 1**

$$HHI = \sum_{i=1}^{n} \left( \frac{Sales\ revenue\ of\ firm\ i}{Total\ sales\ revenue\ of\ all\ firms\ in\ sector} \times 100\% \right)$$

104. Bloomberg supplies revenue data based on the issuing firm's total operating revenue less adjustments to gross sales. These adjustments consist of returns, discounts, allowances, excise taxes, insurance charges, sales taxes, and value added taxes. The total revenue for each industry sector is shown in Figure 23, with the proportions of revenue in each sector being illustrated in Figure 24.

**Figure 23: Total revenue by industry sector**

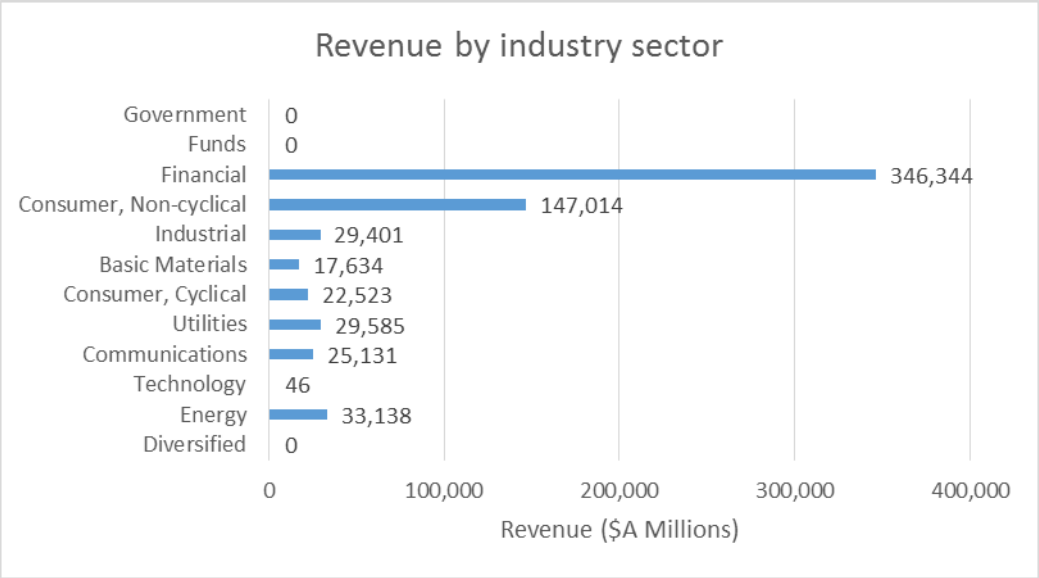
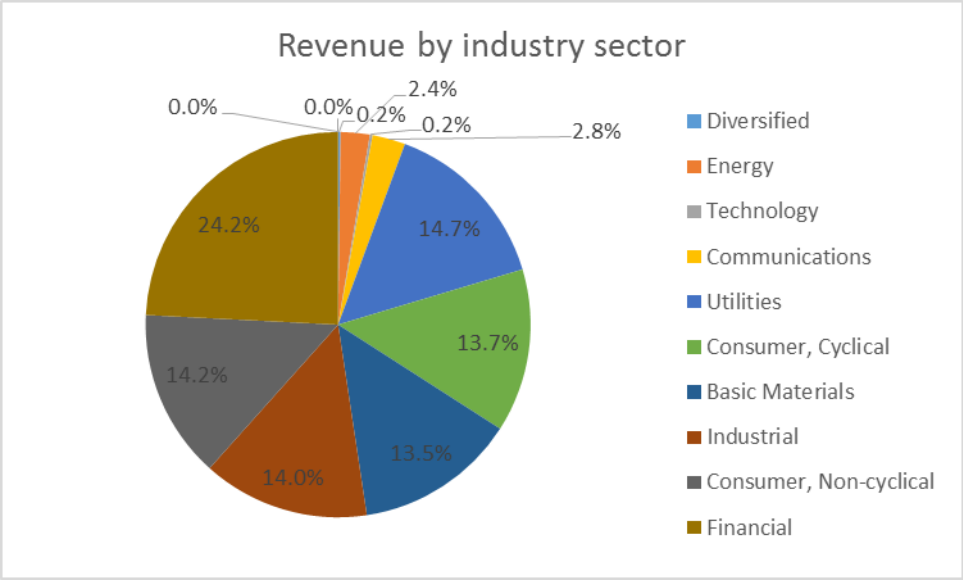
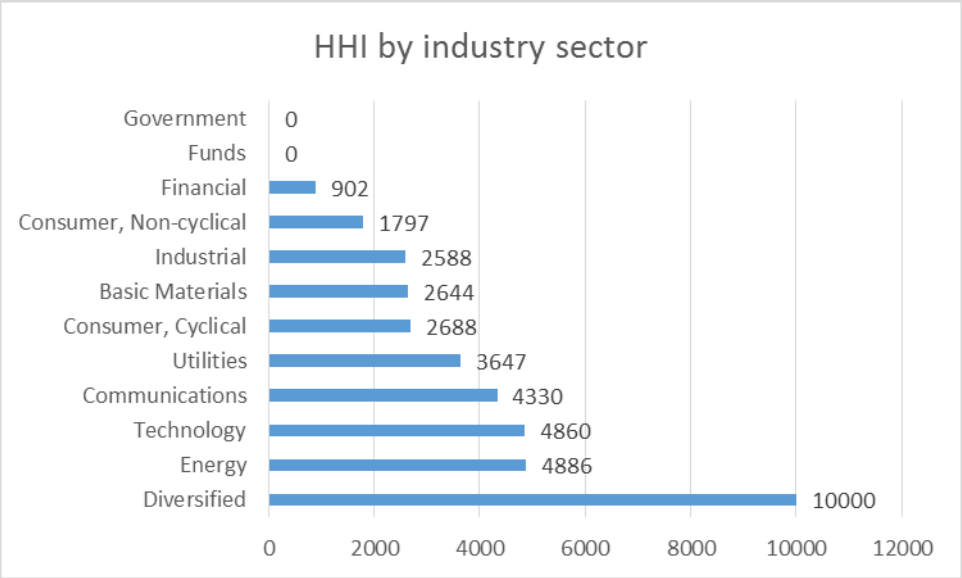



**Figure 24: Proportion of revenue by industry sector**




105. Figure 25 shows the estimated HHI for all twelve industry sectors, while Table 14 shows the total revenue, number of firms, and HHI for the sectors. We classified each sector into high, medium, and low in terms of competitiveness based on their HHI estimates. Sectors with HHI below 2000 were classified as high competitiveness, while sectors with HHI between 2000 and 4000 were classified as medium competitiveness, and sectors with HHI above 4000 were classified as low competitiveness.

## Figure 25: HHI by industry sector




## Table 14: HHI and industry competitiveness

| Industry sector | Total Revenue (A$ Mn) | Number of Firms | HHI | Competition |
|---|---|---|---|---|
| Funds | 0 | 0 | 0 | -/- |
| Government | 0 | 0 | 0 | -/- |
| Financial | 357,005 | 61 | 902 | High |
| Consumer, Non-cyclical | 208,920 | 44 | 1,797 | High |
| Industrial | 206,650 | 43 | 2,588 | Medium |
| Basic Materials | 199,534 | 43 | 2,644 | Medium |
| Consumer, Cyclical | 202,163 | 29 | 2,688 | Medium |
| Utilities | 217,172 | 15 | 3,647 | Medium |
| Communications | 40,865 | 15 | 4,330 | Low |
| Technology | 3,346 | 4 | 4,860 | Low |
| Energy | 36,030 | 21 | 4,886 | Low |
| Diversified | 3,060 | 1 | 10,000 | -/- |
| **Total** | **1,474,747** | **276** | | |

## 5.3 Conclusions on industry competitiveness

106. As shown in Table 14, the funds, government, and diversified sectors were omitted due to insufficient revenue data. The financial sector and consumer non-cyclical sector were classified as high competition. The industrial, basic materials, consumer cyclical, and utilities sectors were classified as medium competition. The communications, technology, and energy sectors were classified as having low competition.

107. The analysis on term of debt at issuance, year of issuance, and time to maturity for the twelve industry sectors is in Section 9 to Section 10.

# 6 Fixed cost levels

108. As mentioned in Section 3.2.5, we obtained historical data on the net fixed assets of the parent companies in our sample as at 31 December on the issue year of the debt, converted to Australian dollar values. This particular date was chosen because it generally produced the most data on net fixed assets, most likely because a large number of firms in our sample report their net fixed assets at the end of the calendar year.

109. Focusing on the fixed cost levels of parent companies sometimes led to nonsensical results, especially with state-owned issuers, since Bloomberg sometimes listed whole countries as the ultimate parent company of the issuer. When this occurred, we traced the corporate hierarchy of each issuer to identify the parent level at which the decision-making on debt financing was likely to be made.

110. The issuers that had the above problem are listed in Table 15, along with their respective chain of parent companies. The companies that were selected for obtaining fixed cost levels are underlined and highlighted in yellow.

**Table 15: Corporate hierarchy of state-owned issuers**

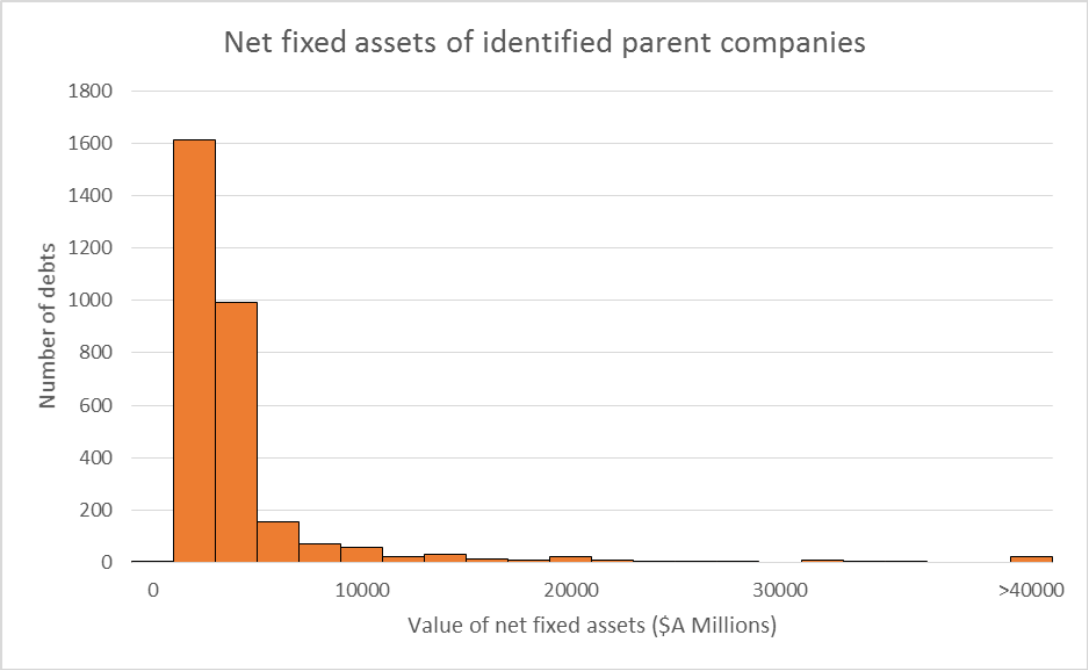
| Issuer | Level 1 parent | Level 2 parent | Level 3 parent | Ultimate parent |
|---|---|---|---|---|
| Broadcast Australia Finance Pty Ltd | Frequency Infrastructure Holdings | Canada Pension Plan | | Government of Canada |
| SGSP Australia Assets Pty Ltd | State Grid International Development | State Grid Corp of China | State-owned Assets Supervision | People's Republic of China |
| Jemena Ltd | SGSP Australia Assets Pty Ltd | State Grid International Development | State Grid Corp of China | People's Republic of China |
| China Minmetals Corp | State-owned Assets Supervision | People's Republic of China Ministry of Finance | | People's Republic of China |
| Musselroe Wind Farm Pte Ltd | Guohua Energy Investment Co Ltd | Shenhua Group Corp Ltd | State-owned Assets Supervision | People's Republic of China |
| Qenos Pty Ltd | China National Bluestar Group | China National Chemical Corp | State-owned Assets Supervision | People's Republic of China |
| MMG Ltd | China Minmetals Corp | State-owned Assets Supervision | People's Republic of China Ministry of Finance | People's Republic of China |
| Sino Iron Pty Ltd | CITIC Pacific Mining Management | CITIC Ltd | CITIC Group Corp | People's Republic of China |
| Baosteel Resources Australia P | Baosteel Resources International Co Ltd | Shanghai Baosteel Group Corp | State-owned Assets Supervision | People's Republic of China |

| | | | | |
|---|---|---|---|---|
| Optus Finance Pty Ltd | Singtel Optus Pty Ltd | Singapore Telecom Australia Inc<br>Temasek Holdings Pte Ltd | Singtel Australia Investment Ltd | Republic of Singapore |
| Olam Orchards Australia Pty Lt | Olam International Ltd | | | Republic of Singapore |
| Australian Rail Track Corp Ltd | | | | Commonwealth of Australia |
| QIC Finance Shopping Center Fund | QIC Retail Pty Ltd | QIC Ltd | | State of Queensland Australia |
| Gullen Range Wind Farm | Beijing Jingneng Clean Energy Co Ltd (Hong Kong) | Beijing Energy Investment Holdings Co Ltd | Beijing State-owned Assets Operation | Municipality of Beijing China |
| Bright Food Group Operations Pty Ltd | Bright Food Group Co Ltd (China) | SASAC of Shanghai Municipality | | Municipality of Shanghai China |
| Tourism Asset Holdings Ltd | Abu Dhabi Investment Authority | | | Emirate of Abu Dhabi United Arab Emirates |
| Nextgen Networks Pty Ltd | | | | Ontario Teachers' Pension Plan |

111. Of the 4697 debts in our sample, 3035 had data on the value of net fixed assets of their identified parent companies, consisting of 2381 bonds, 412 revolver loans, and 242 non-revolver loans.

112. The minimum value of net fixed assets is 0, while the maximum is A$ 115,437 million. The mean is A$ 3,480 million and the median is A$ 1,952 million. The distribution of net fixed assets for the identified parent companies associated with the debts in our sample is shown in Figure 26.

**Figure 26: Histogram of net fixed assets amounts**




113. In order to analyse the debt financing structures of firms with different fixed cost levels, we separated the sample into two subsamples: debts with associated net fixed asset values up to and including the median (A$ 1,952 million), and debts with net fixed asset values above the median.

114. One implication of our approach is that debts issued by the same parent company at different times could in turn be classified under different subsamples if the company's net fixed asset value was below the median at one issue date and above the median at another. This is especially the case for companies that issued debts many years apart and had substantial changes in their asset bases. This is not necessarily a problem, however, since the change in the company's asset base is also likely to influence the company's decision-making process regarding debt financing, which is the precisely the effect that the analysis is attempting to capture.

115. The analysis on term of debt at issuance, year of issuance, and time to maturity for the low and high fixed cost subsamples are shown in Section 9.2 and Section 10.2 respectively.

# 7 Debt-to-equity ratio

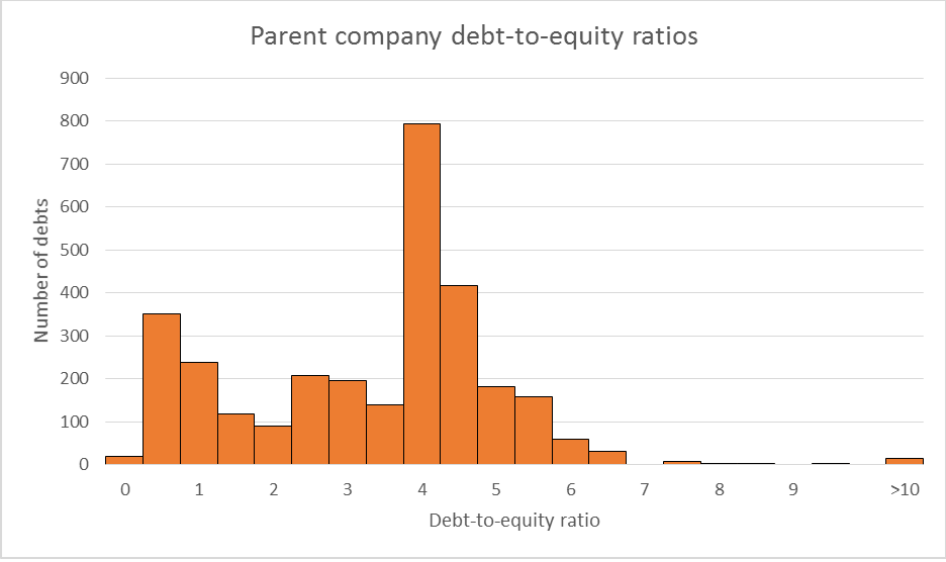
116. Our approach to obtaining data on debt-to-equity ratios is similar to the method used to obtain data on fixed cost levels in Section 6. Specifically, we obtained historical values on the debt-to-equity ratio of parent companies as at 31 December of the year of debt issue. For the state-owned issuers listed in Table 15, we obtained data for the same companies highlighted in yellow.

117. As mentioned in section 3.2.6, we used data from Bloomberg on the total-debt-to-total-equity ratio instead of total-debt-to-common-equity since the former is a more accurate reflection of the extent of gearing by the borrower.

118. Of the 4697 debts in our sample, 3028 had data on the value of net fixed assets of their identified parent companies, consisting of 2373 bonds, 412 revolver loans, and 243 non-revolver loans.

119. The minimum total-debt-to-total-equity ratio in the sample is 0, while the maximum is 3000%. The mean is 310% and the median is 370%. The distribution of the total-debt-to-total-equity ratios for the identified parent companies associated with the debts in our sample is shown in Figure 27.

**Figure 27: Parent company debt-to-equity ratios**




120. Similar to the analytical approach applied to fixed cost levels as set out in Section 6, the sample was separated into two subsamples: debts with associated total-debt-to-total equity ratio up to and including the median (3.68), and debts with total-debt-to-total equity ratio above the median. The analysis on term of debt at issuance, year of issuance, and time to maturity for the two subsamples divided according to debt-to-equity ratio is shown in Section 9.3 and Section 10.3.

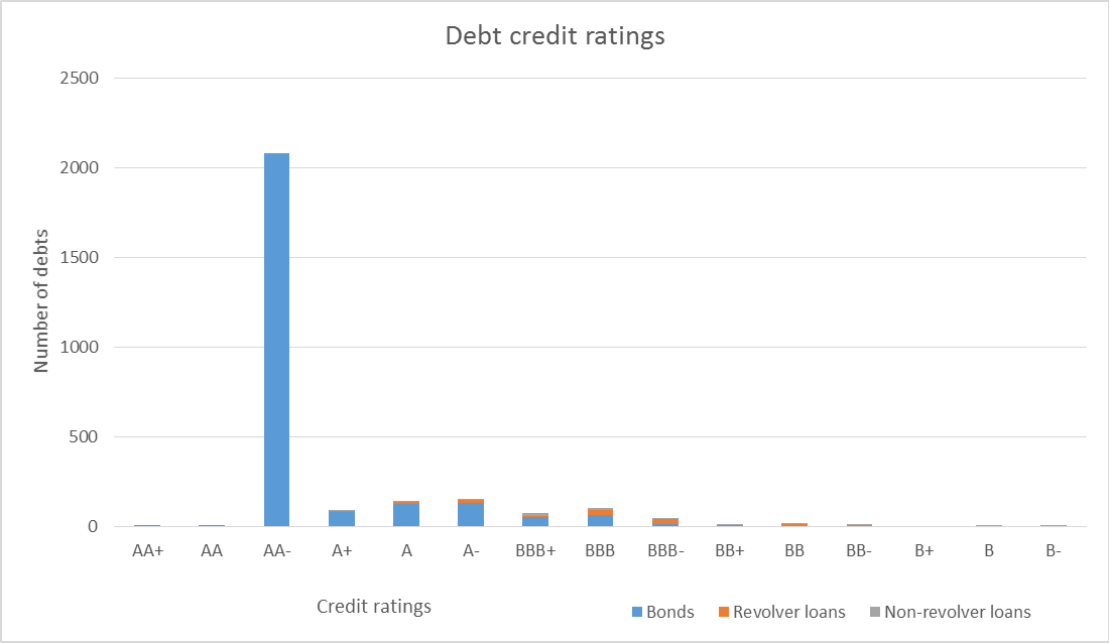
# 8 Credit ratings

121. As set out in Section 3.2.7, we referred to the S&P credit ratings since they are commonly used in practice. Of these, we selected the S&P Long Term Local Currency Issuer Credit Rating because it yielded the most number of ratings for our sample and is most relevant for the structuring of long-term debt.

122. Out of the 4697 debts in our sample, 2724 received credit ratings, comprising of 2548 bonds, 117 revolver loans, and 59 non-revolver loans. The credit ratings range from AA+ to B-, as shown in the upper half of Table 16, which provides the breakdown of the three debt types for each credit rating band. The distribution of the number of debt for each credit rating is shown in Figure 28, and repeated for clarity in Figure 29 with all debts rated AA- excluded. It is observed that the vast majority of higher-rated debt is in the form of bonds, while the proportion of loans increases for the lower credit ratings. This might suggest that firms with better credit standing are more likely to issue bonds than loans.

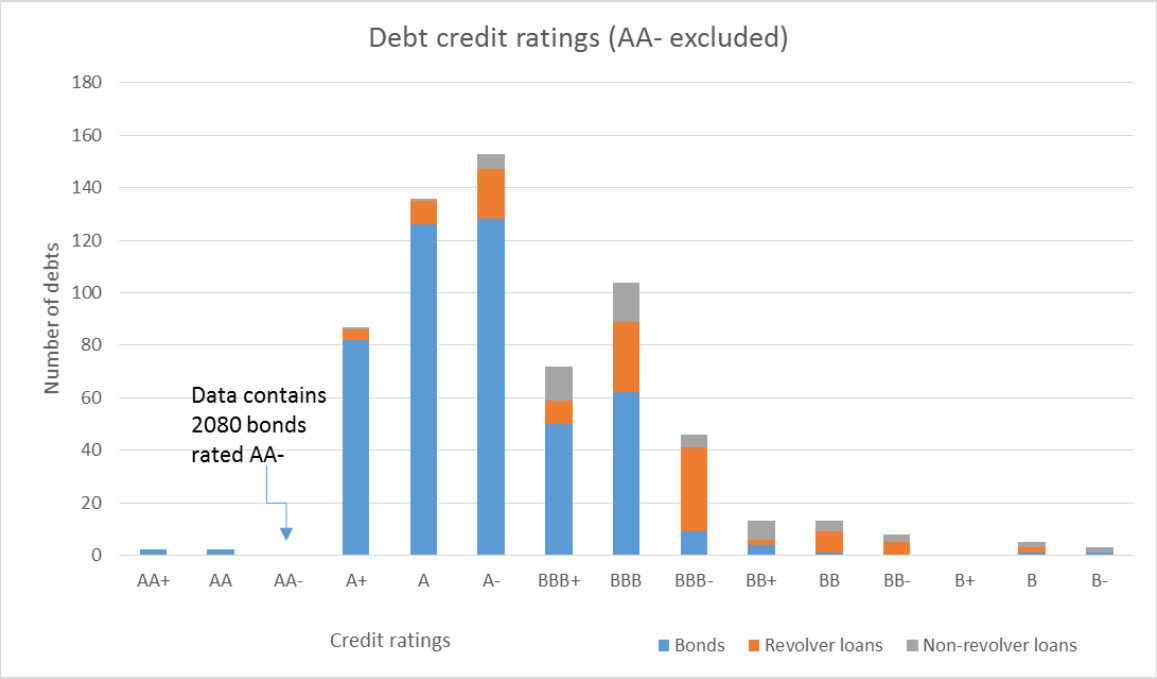
123. Since a number of the credit rating grade only show results for a small number of debts, our analysis is carried out for debts in terms of "broad credit ratings", such that the three grades of each credit letter are consolidated. The number of debts at each consolidated credit letter is shown in the bottom half of Table 16.

**Figure 28: S&P long-term local currency issuer credit ratings**




124. AA- bonds are dominated by issuance from the four major Australian banks. Excluding these bonds, as is done in the next figure, allows one to focus on the distribution of debts across other businesses.

## Figure 29 S&P long-term local currency issuer credit ratings (AA- excluded)




## Table 16: S&P long-term local currency issuer credit ratings

| | AA+ | AA | AA- | A+ | A | A- | BBB+ | BBB | BBB- | BB+ | BB | BB- | B+ | B | B- | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bonds** | 2 | 2 | 2080 | 82 | 126 | 128 | 50 | 62 | 9 | 4 | 1 | 0 | 0 | 1 | 1 | 2548 |
| **Rev loan** | 0 | 0 | 0 | 4 | 9 | 19 | 9 | 27 | 32 | 2 | 8 | 5 | 0 | 2 | 0 | 117 |
| **Non-rev** | 0 | 0 | 0 | 1 | 1 | 6 | 13 | 15 | 5 | 7 | 4 | 3 | 0 | 2 | 2 | 59 |
| **Total** | 2 | 2 | 2080 | 87 | 136 | 153 | 72 | 104 | 46 | 13 | 13 | 8 | 0 | 5 | 3 | 2724 |
| **Bonds** | 2084 | | | 336 | | | 121 | | | 5 | | | 2 | | | 2548 |
| **Rev loan** | 0 | | | 32 | | | 68 | | | 15 | | | 2 | | | 117 |
| **Non-rev** | 0 | | | 8 | | | 33 | | | 14 | | | 4 | | | 59 |
| **Total** | 2084 | | | 376 | | | 222 | | | 34 | | | 8 | | | 2724 |

*Source: Bloomberg, CEG analysis*

125. The analysis on term of debt at issuance, year of issuance, and time to maturity for the broad credit ratings are shown in Section 9.4 and Section 10.4.

# 9 Term of debt at issuance

126. This section presents the empirical evidence regarding the term of debt at the date of issue for different subsamples. Section 9.1 investigates the term of debt at issuance for different industry sectors with different levels of competitiveness.

127. Section 9.2 compares the term of debt at issuance for the subsamples with parent company net fixed assets up to and including the median as compared to the subsample with net fixed assets above the median.

128. Section 9.3 considers the term of debt at issuance for the subsample in which the parent company has a debt-to-equity ratio up to and including the median, as compared to the subsample with a debt-to-equity ratio above the median.

129. Section 9.4 assesses how the term of debt at issuance differs across broad credit ratings.

## 9.1 Term of debt and industry competitiveness

130. Table 14 in Section 97 classified the 12 industry sectors in the sample into high, medium, and low competition categories. The weighted average debt term and simple average debt term for these sectors are shown below in Table 17.

131. Debts issued by firms in the technology sector have the lowest weighted average and simple average debt terms at 4.36 years and 3.78 years respectively. Debts issued by firms in the government sector have the highest weighted average and simple average debt terms at 14.28 years and 9.92 years respectively.

132. The difference between the weighted average and simple average debt terms is largest for the energy sector, at 4.45 years. The fact that the weighted average debt term for that sector is significantly larger than the corresponding simple average debt term suggests that the energy sector is more likely to issue larger long-term debts and smaller short-term debts.

133. In contrast, the financial sector's weighted average debt term of 6.30 years is 3.49 years less than its simple average debt term of 9.79 years, which suggests that the short-term debts issued by the financial sector likely to be for larger amounts, while their long-term debts are likely to be smaller.

134. The debt term at issuance charts and average debt terms for all 12 sectors in the sample are shown in Section 9.1.1 to 9.1.4.

## Table 17: Average debt terms by industry sector

| Industry sector | Weighted average debt term | Simple average debt term | Competitiveness/concentration[10] |
|---|---|---|---|
| Financial | 6.30 | 9.79 | High |
| Consumer, non-cyclical | 6.21 | 6.07 | |
| Industrial | 6.68 | 5.72 | Medium |
| Basic materials | 9.79 | 6.53 | |
| Consumer, cyclical | 6.75 | 4.87 | |
| Utilities | 10.46 | 8.27 | |
| Communications | 7.17 | 7.58 | Low |
| Technology | 4.36 | 3.78 | |
| Energy | 13.01 | 8.56 | |
| Funds | 6.18 | 3.54 | Unclassified |
| Government | 14.28 | 9.92 | |
| Diversified | 5.55 | 4.37 | |

*Source: Bloomberg, CEG analysis*

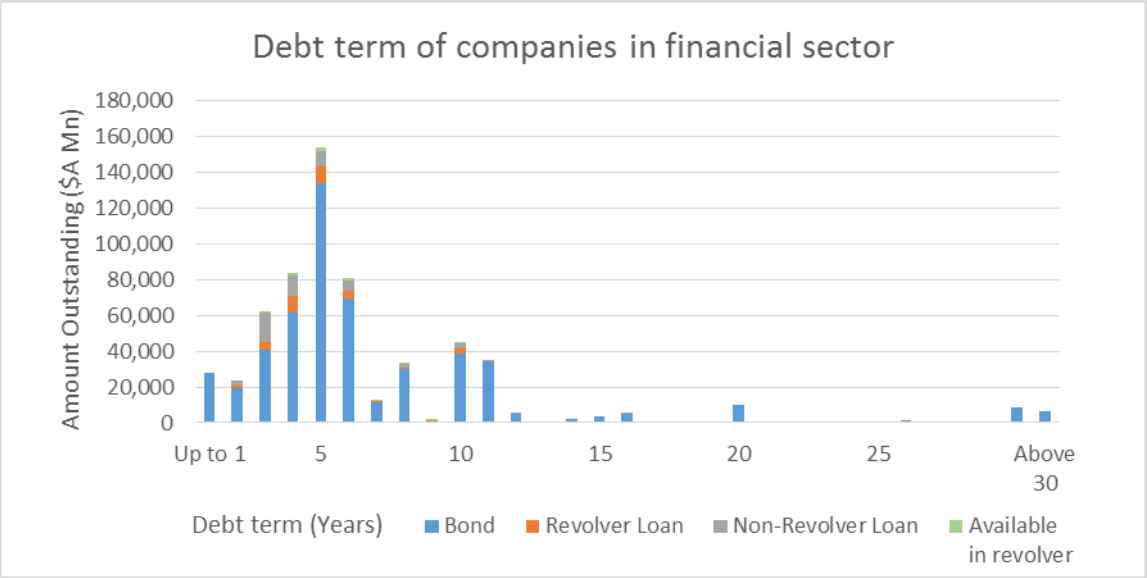
135. There does not appear to be a strong relationship between industry concentration and weighted average debt term. This may reflect the fact that other industry specific influences are more important and/or that our relatively broad measures of industry do not capture differences in the level of concentration across sub markets within those industries.

[10] Classified according to HHI as shown in Table 14.

### 9.1.1 Sectors with high level of competition

#### *9.1.1.1 Financial*

**Figure 30: Debt term at issuance for all debts issued by companies in the financial sector**

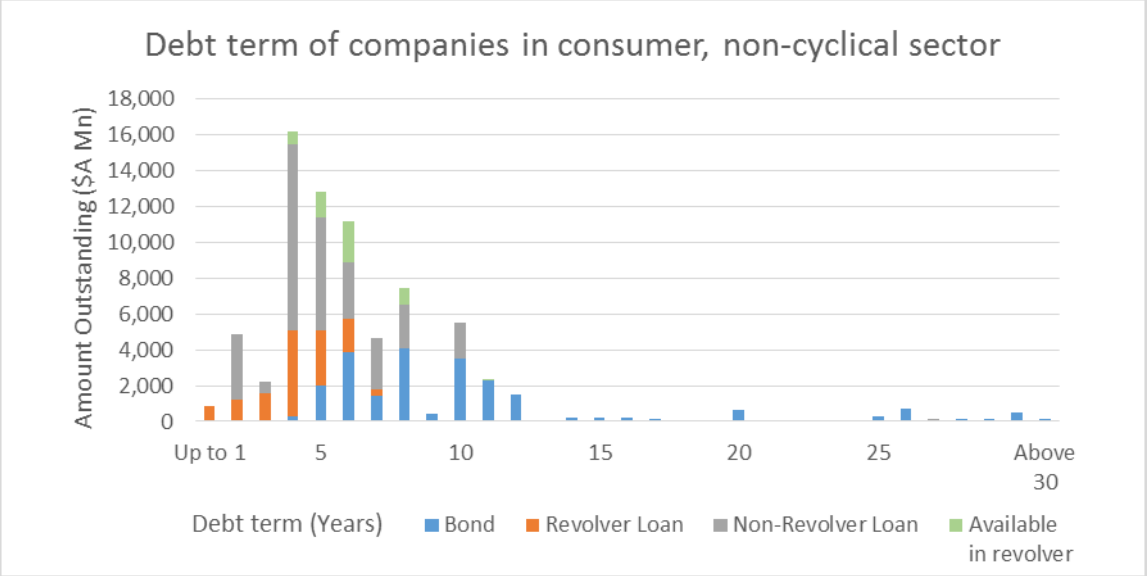


## Table 18: Average debt terms for all debts issued by companies in the financial sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2771 | 179 | 160 | 3110 |
| Amount Outstanding ($A Mn) | 512,435.61 | 34,076.66 | 50,319.63 | 596,831.89 |
| Weighted average debt term | 6.65 | 4.55 | 3.98 | 6.30 |
| Simple average debt term | 10.48 | 4.12 | 3.73 | 9.79 |

#### *9.1.1.2 Consumer, non-cyclical*

## Figure 31: Debt term at issuance for all debts issued by companies in the consumer, non-cyclical sector




## Table 19: Average debt terms for all debts issued by companies in the consumer, non-cyclical sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 86 | 126 | 119 | 331 |
| Amount Outstanding ($A Mn) | 22,761.31 | 13,717.44 | 31,546.31 | 68,025.06 |
| Weighted average debt term | 9.87 | 3.55 | 4.74 | 6.21 |
| Simple average debt term | 11.49 | 3.75 | 4.36 | 6.07 |

### 9.1.2 Sectors with medium level of competition

#### *9.1.2.1 Industrial*

**Figure 32: Debt term at issuance for all debts issued by companies in the industrial sector**

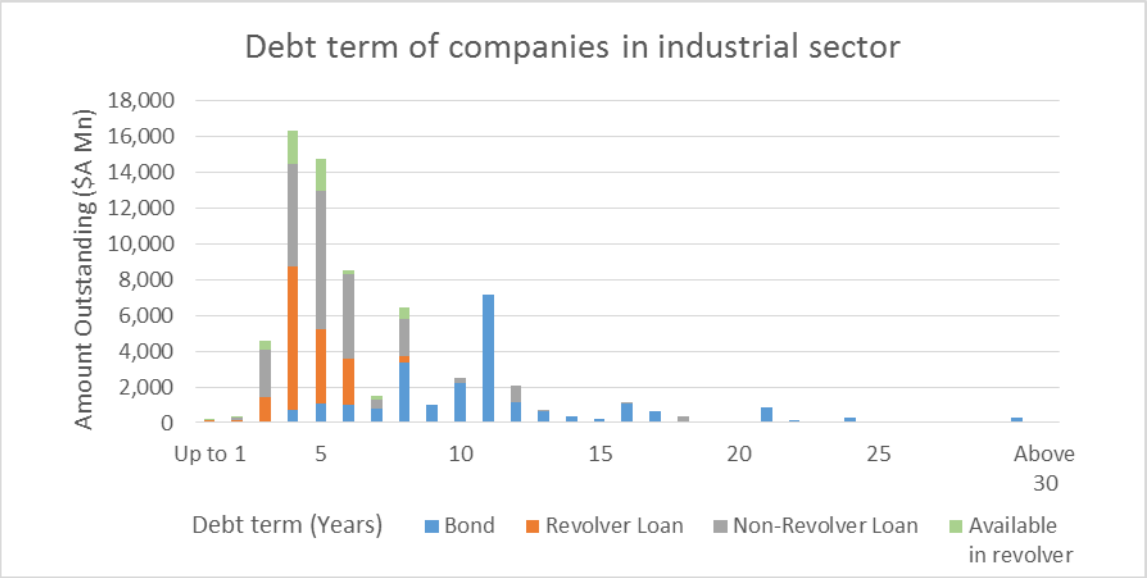



**Table 20: Average debt terms for all debts issued by companies in the industrial sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 77 | 131 | 127 | 335 |
| Amount Outstanding ($A Mn) | 23,065.25 | 16,760.40 | 25,197.76 | 65,023.41 |
| Weighted average debt term | 10.41 | 3.91 | 5.12 | 6.68 |
| Simple average debt term | 10.86 | 3.71 | 4.52 | 5.72 |

#### 9.1.2.2 *Basic Materials*

**Figure 33: Debt term at issuance for all debts issued by companies in the basic materials sector**

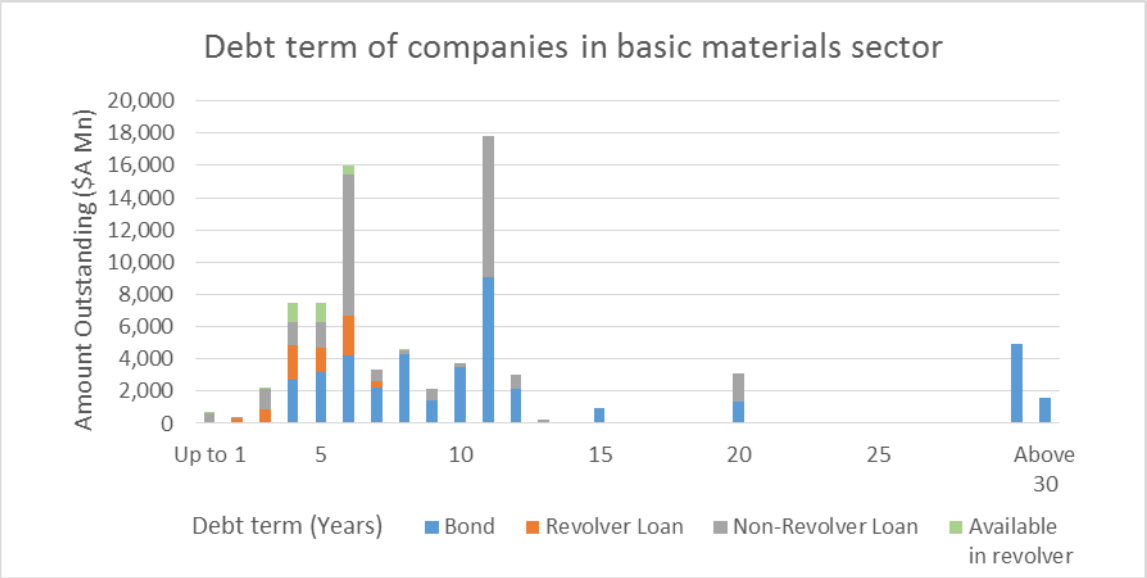



**Table 21: Average debt terms for all debts issued by companies in the basic materials sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 61 | 60 | 88 | 209 |
| Amount Outstanding ($A Mn) | 41,537.67 | 7,843.85 | 27,273.80 | 76,655.31 |
| Weighted average debt term | 11.91 | 4.26 | 8.15 | 9.79 |
| Simple average debt term | 10.60 | 4.02 | 7.95 | 6.53 |

#### 9.1.2.3 *Consumer, Cyclical*

**Figure 34: Debt term at issuance for all debts issued by companies in the consumer, cyclical sector**

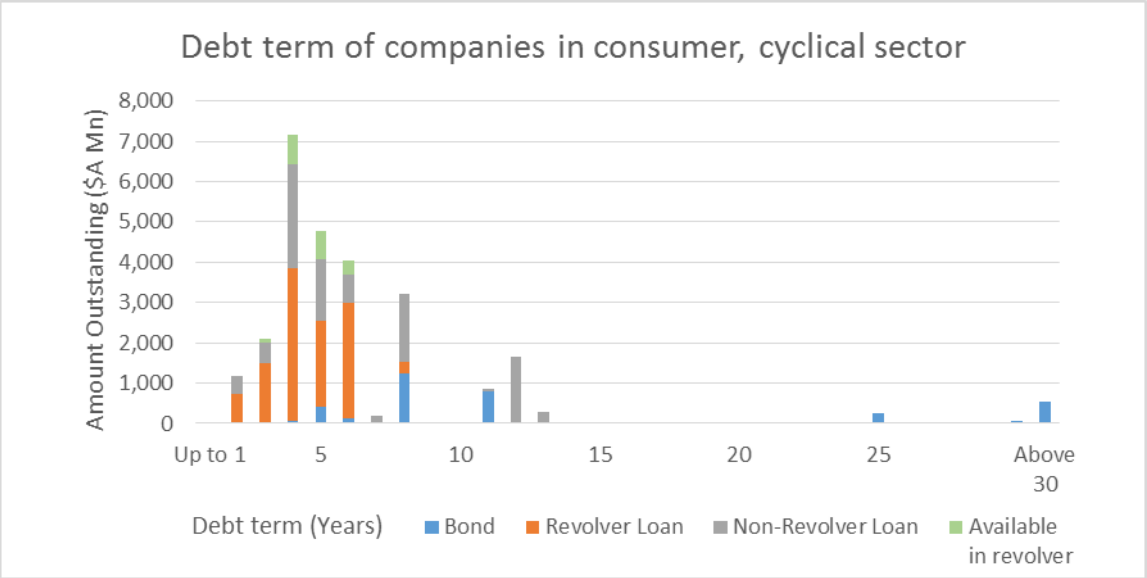



**Table 22: Average debt terms for all debts issued by companies in the consumer, cyclical sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 15 | 98 | 65 | 178 |
| Amount Outstanding ($A Mn) | 3,481.55 | 11,287.71 | 9,653.82 | 24,423.07 |
| Weighted average debt term | 17.22 | 3.95 | 6.24 | 6.75 |
| Simple average debt term | 12.91 | 3.88 | 2.99 | 4.87 |

#### 9.1.2.4 Utilities

**Figure 35: Debt term at issuance for all debts issued by companies in the utilities sector**

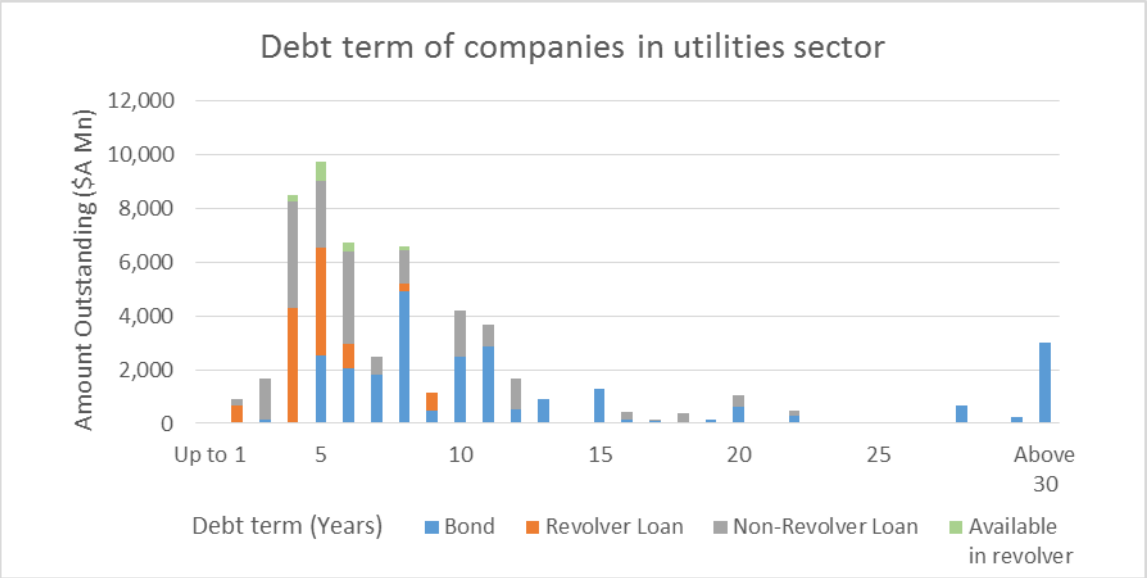



**Table 23: Average debt terms for all debts issued by companies in the utilities sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 76 | 43 | 91 | 210 |
| Amount Outstanding ($A Mn) | 25,190.74 | 10,776.21 | 18,658.52 | 54,625.46 |
| Weighted average debt term | 15.76 | 4.60 | 6.69 | 10.46 |
| Simple average debt term | 12.51 | 4.50 | 13.78 | 8.27 |

### 9.1.3 Sectors with low level of competition

#### *9.1.3.1 Communications*

**Figure 36: Debt term at issuance for all debts issued by companies in the communications sector**

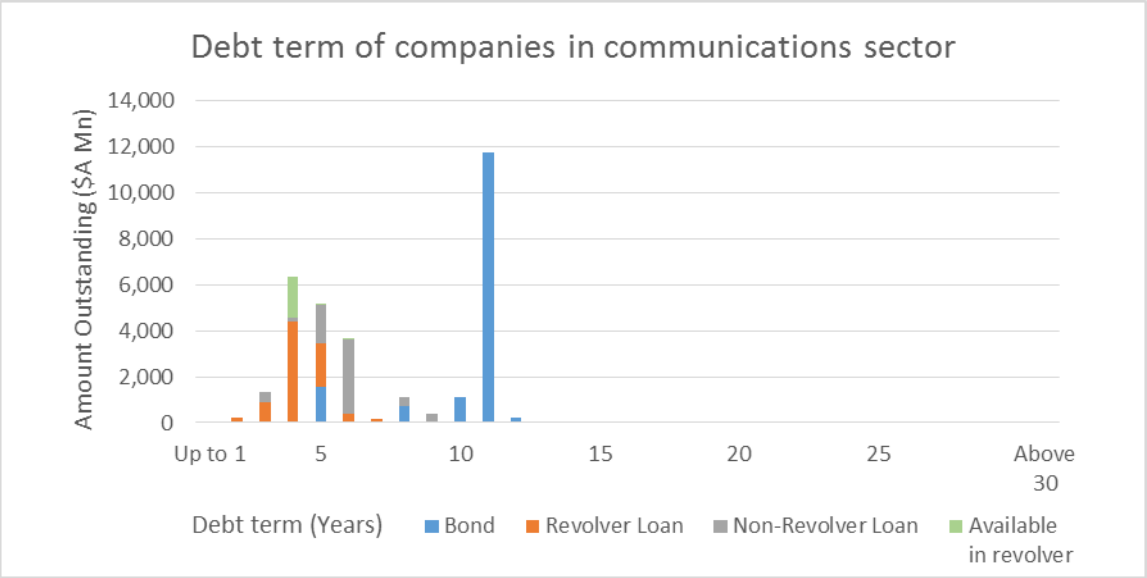



**Table 24: Average debt terms for all debts issued by companies in the communications sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 46 | 44 | 25 | 115 |
| Amount Outstanding ($A Mn) | 15,522.87 | 7,929.83 | 6,302.07 | 29,754.76 |
| Weighted average debt term | 9.72 | 3.82 | 5.09 | 7.17 |
| Simple average debt term | 12.52 | 3.91 | 2.82 | 7.58 |

#### 9.1.3.2 Technology

**Figure 37: Debt term at issuance for all debts issued by companies in the technology sector**

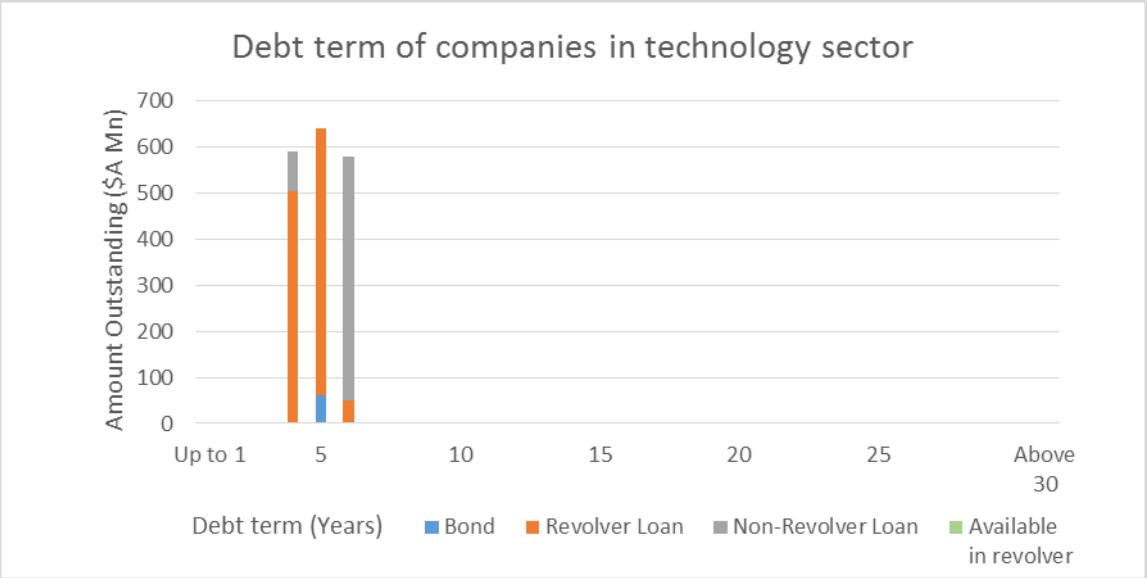
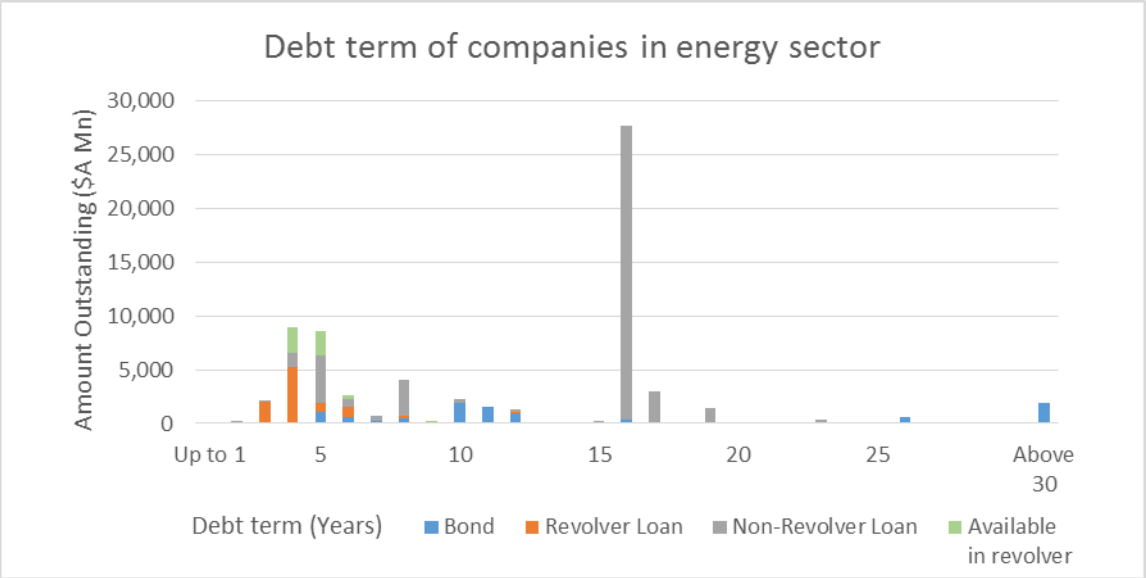



**Table 25: Average debt terms for all debts issued by companies in the technology sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 6 | 6 | 13 |
| Amount Outstanding ($A Mn) | 60.00 | 1,135.46 | 615.00 | 1,810.46 |
| Weighted average debt term | 5.00 | 4.06 | 4.86 | 4.36 |
| Simple average debt term | 5.00 | 3.52 | 3.83 | 3.78 |

#### 9.1.3.3 *Energy*

**Figure 38: Debt term at issuance for all debts issued by companies in the energy sector[11]**




136. There is a large spike (A$ 27.6bn) at 15-16 years. This appears to be a popular maturity of debt issuance and is comprised of 28 debt issuances. This includes large issuance by Ichthys LNG Pty Ltd (parent company Inpex Corp), with a total outstanding amount of A$ 16.6bn. The remaining 11 bn is spread across a number of other firms.

**Table 26: Average debt terms for all debts issued by companies in the energy sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 37 | 43 | 86 | 166 |
| Amount Outstanding ($A Mn) | 9,823.48 | 9,443.77 | 43,641.07 | 62,908.32 |
| Weighted average debt term | 19.88 | 3.91 | 13.43 | 13.01 |
| Simple average debt term | 12.36 | 4.88 | 17.52 | 8.56 |

[11] Part of the large spike (A$ 27,660.73 Mn) at 15-16 years can be attributed to 14 non-revolver loans issued by Ichthys LNG Pty Ltd (parent company Inpex Corp), with a total outstanding amount of A$ 16.6m. Ichthys LNG Pty Ltd did not issue any other debts aside from these. Notwithstanding these, however, the remaining amount of A$ 11,034.41 m remains relatively large compared to other time periods, and may simply be an anomaly.

### 9.1.4 Unclassified sectors

#### *9.1.4.1 Funds*

**Figure 39: Debt term at issuance for all debts issued by companies in the funds sector**

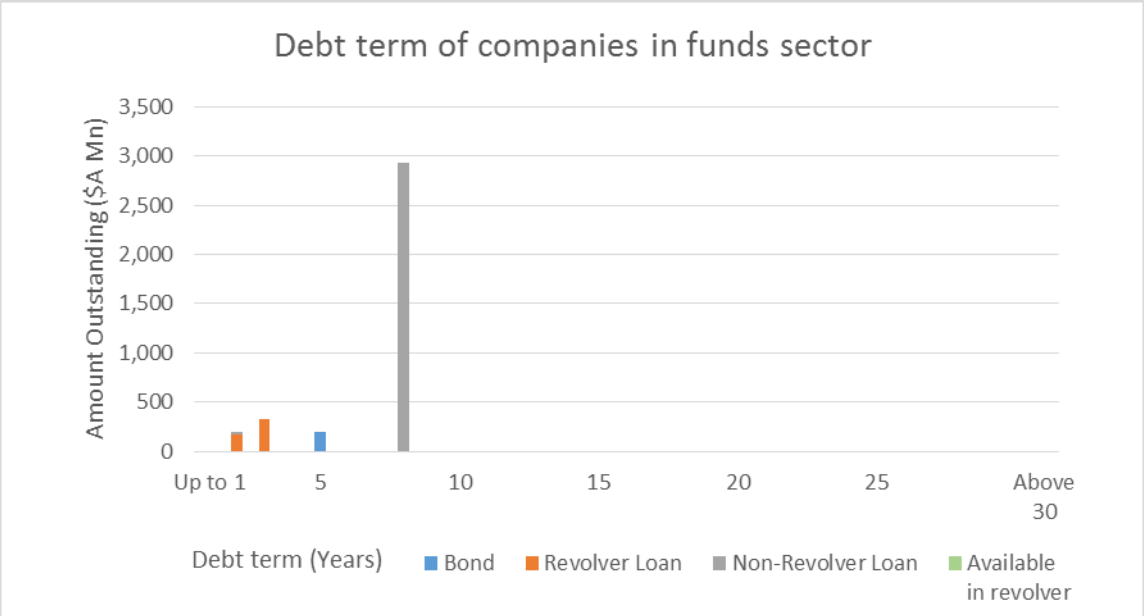



**Table 27: Average debt terms for all debts issued by companies in the funds sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 4 | 3 | 8 |
| Amount Outstanding ($A Mn) | 200.00 | 500.00 | 2,950.85 | 3,650.85 |
| Weighted average debt term | 5.00 | 2.00 | 6.96 | 6.18 |
| Simple average debt term | 5.00 | 2.00 | 3.83 | 3.54 |

#### 9.1.4.2 Government

**Figure 40: Debt term at issuance for all debts issued by companies in the government sector**

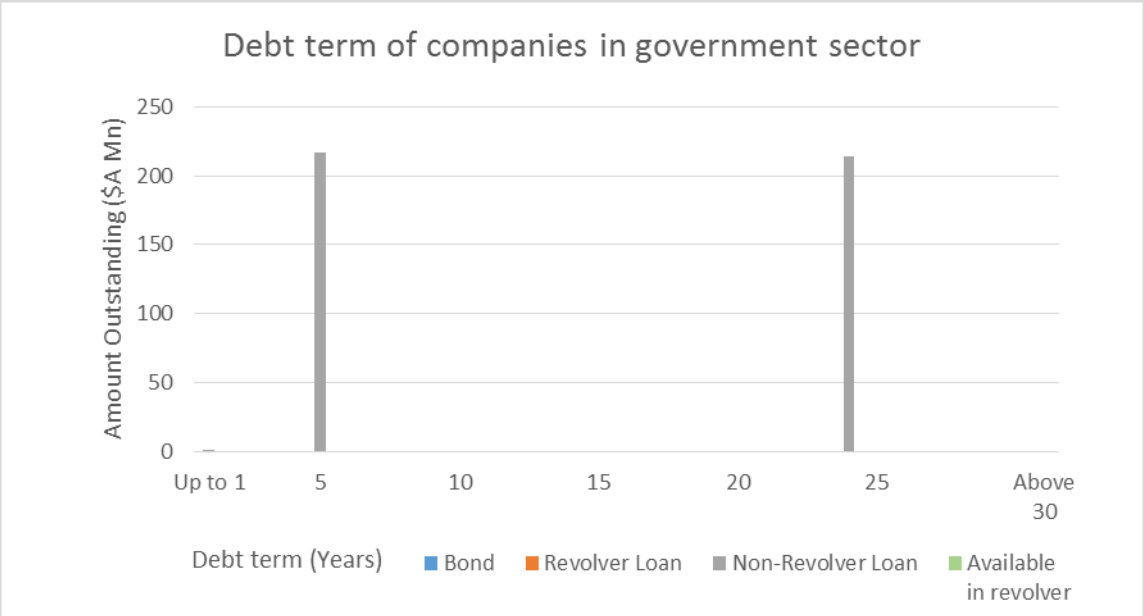



**Table 28: Average debt terms for all debts issued by companies in the government sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 0 | 3 | 3 |
| Amount Outstanding ($A Mn) | 0.00 | 0.00 | 432.09 | 432.09 |
| Weighted average debt term | N/A | N/A | 14.28 | 14.28 |
| Simple average debt term | N/A | N/A | N/A | 9.92 |

#### 9.1.4.3 *Diversified*

**Figure 41: Debt term at issuance for all debts issued by companies in the diversified sector**

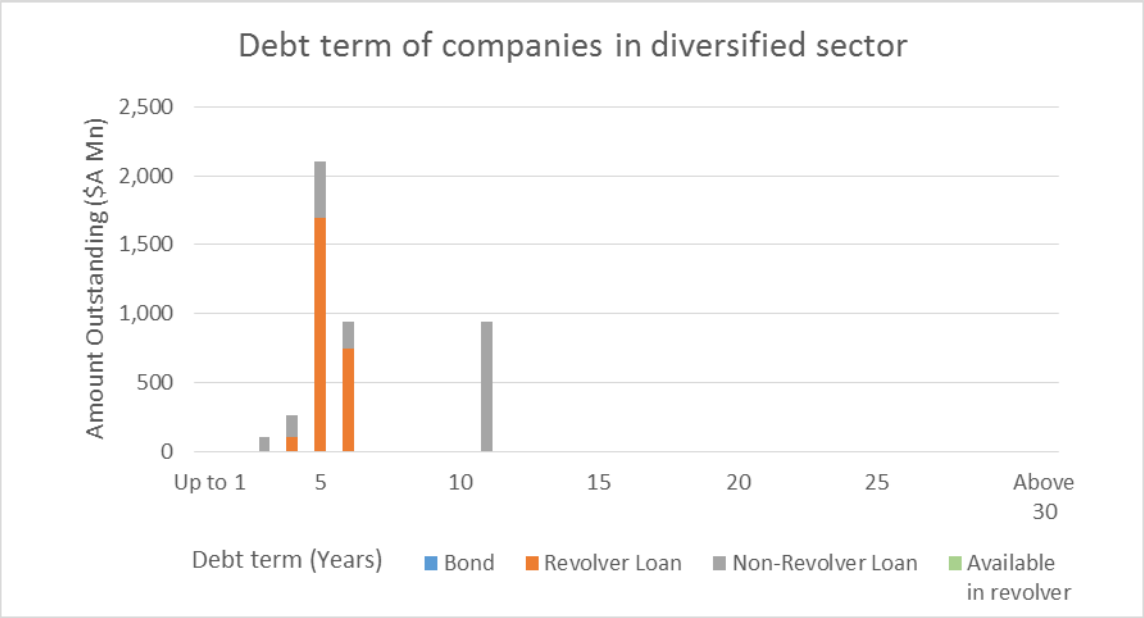



**Table 29: Average debt terms for all debts issued by companies in the diversified sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 11 | 8 | 19 |
| Amount Outstanding ($A Mn) | 0.00 | 2,544.51 | 1,805.65 | 4,350.16 |
| Weighted average debt term | N/A | 4.45 | 7.10 | 5.55 |
| Simple average debt term | N/A | 4.27 | 3.28 | 4.37 |

## 9.2 Term of debt and fixed cost levels

137. The sample is divided into two subsamples according to the amount of net fixed assets held by the parent company: (1) asset levels up to and including the median; and (2) asset levels above the median ($A 1,952 million). The weighted average debt term and simple average debt term for both groups are shown below in Table 30.

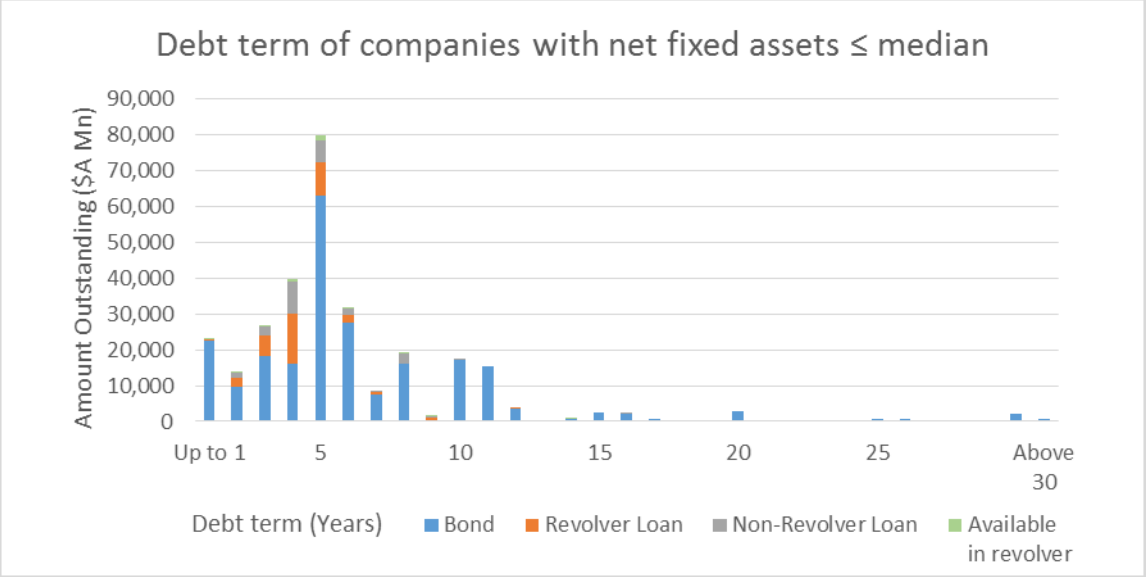
138. The weighted average and simple average debt term for debts where the parent company has net fixed assets up to and including the median are 5.68 years and 7.71 years respectively. The weighted average debt term for the subsample where the parent company has net fixed assets above the median is 7.41 years, while the simple average is 9.43 years. Sections 9.2.1 and 0 show the term of debt charts and average debt terms for both groups.

## Table 30: Average debt terms for different fixed cost levels

| Fixed cost levels | Weighted average debt term | Simple average debt term |
|---|---|---|
| ≤ Median ($A 1,952 Mn) | 5.68 | 7.71 |
| > Median ($A 1,952 Mn) | 7.41 | 9.43 |

### 9.2.1 Fixed cost levels up to and including the median

## Figure 42: Debt term at issuance for debts issued by companies with net fixed assets up to and including the median




## Table 31: Average debt terms at issuance for debt issued by companies with net fixed assets up to and including the median

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1085 | 286 | 148 | 1519 |
| Amount Outstanding ($A Mn) | 232,209.32 | 35,264.86 | 23,552.14 | 291,026.31 |
| Weighted average debt term | 6.12 | 3.80 | 4.22 | 5.68 |
| Simple average debt term | 9.27 | 3.70 | 2.07 | 7.71 |

### 9.2.2 Fixed cost levels above the median

**Figure 43: Debt term at issuance for debts issued by companies with net fixed assets above the median**

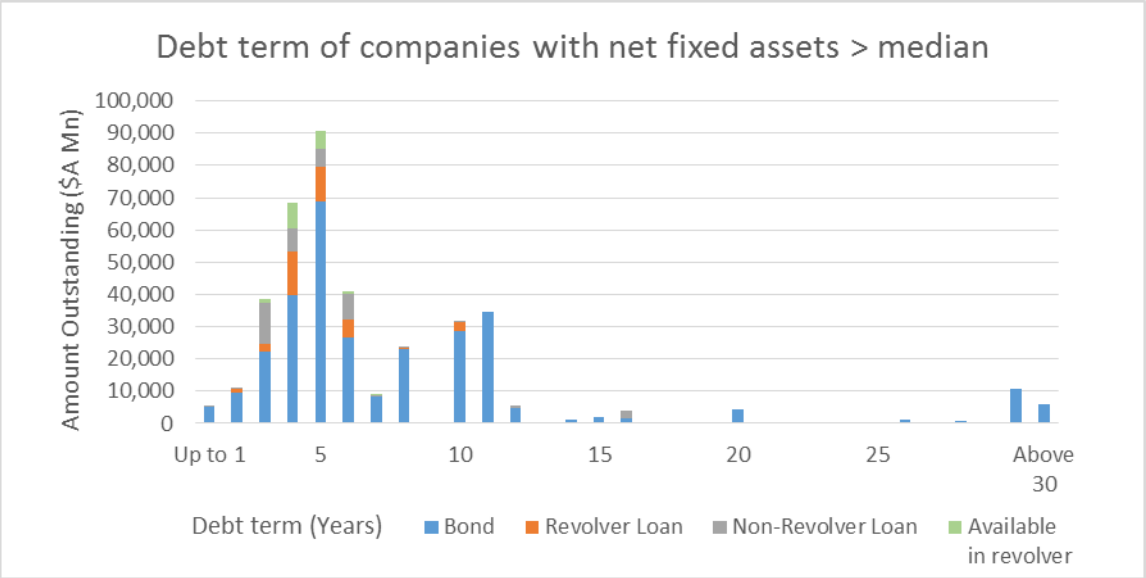



**Table 32: Average debt terms at issuance for debt issued by companies with net fixed assets above the median**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1296 | 126 | 94 | 1516 |
| Amount Outstanding ($A Mn) | 300,046.73 | 36,926.65 | 39,603.97 | 376,577.35 |
| Weighted average debt term | 8.10 | 4.54 | 4.86 | 7.41 |
| Simple average debt term | 10.26 | 4.23 | 3.69 | 9.43 |

## 9.3 Term of debt and debt-to-equity ratios

139. In order to compare debt terms for different debt-to-equity ratios, the sample is subdivided into two, according to whether the parent company's debt-to-equity ratio is up to and including the sample median (368.4%), or whether the debt-to-equity ratio is above the sample median. The weighted average debt term and simple average debt term for both groups are shown below in Table 33.

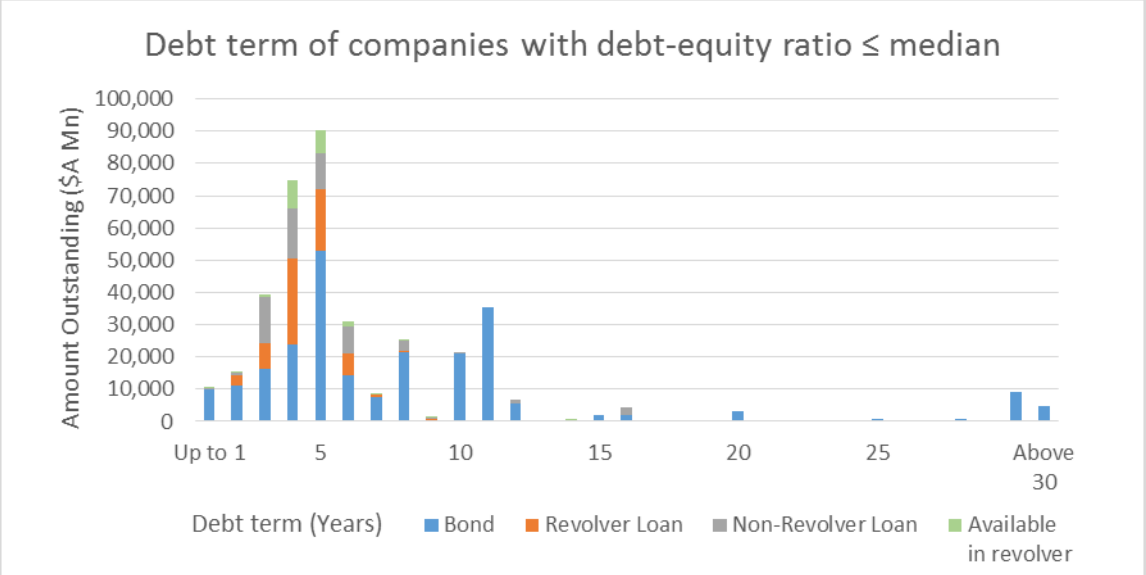
140. The weighted average and simple average debt term for debts issued by parent companies with debt-to-equity ratios up to and including the median is 7.04 years and 7.42 years respectively. The weighted average debt term for the subsample where the parent company has a debt-to-equity ratio above the median is 6.19 years, while the simple average is 9.84 years. Sections 9.3.1 and 0 show the term of debt charts and average debt terms for both groups.

## Table 33: Average debt terms for different debt-to-equity ratios

| Debt-to-equity ratio | Weighted average debt term | Simple average debt term |
|---|---|---|
| ≤ Median (368.4%) | 7.04 | 7.42 |
| > Median (368.4%) | 6.19 | 9.84 |

### 9.3.1 Debt-to-equity ratio up to and including the median

## Figure 44: Debt term at issuance for debts issued by companies with debt-to-equity ratios up to and including the median




## Table 34: Average debt terms at issuance for debt issued by companies with debt-to-equity ratios up to and including the median

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 972 | 396 | 218 | 1586 |
| Amount Outstanding ($A Mn) | 244,549.05 | 66,539.78 | 58,553.83 | 369,642.66 |
| Weighted average debt term | 8.45 | 3.97 | 4.65 | 7.04 |
| Simple average debt term | 9.55 | 3.86 | 2.43 | 7.42 |

### 9.3.2 Debt-to-equity ratio above the median

**Figure 45: Debt term at issuance for debts issued by companies with debt-to-equity ratios above the median**

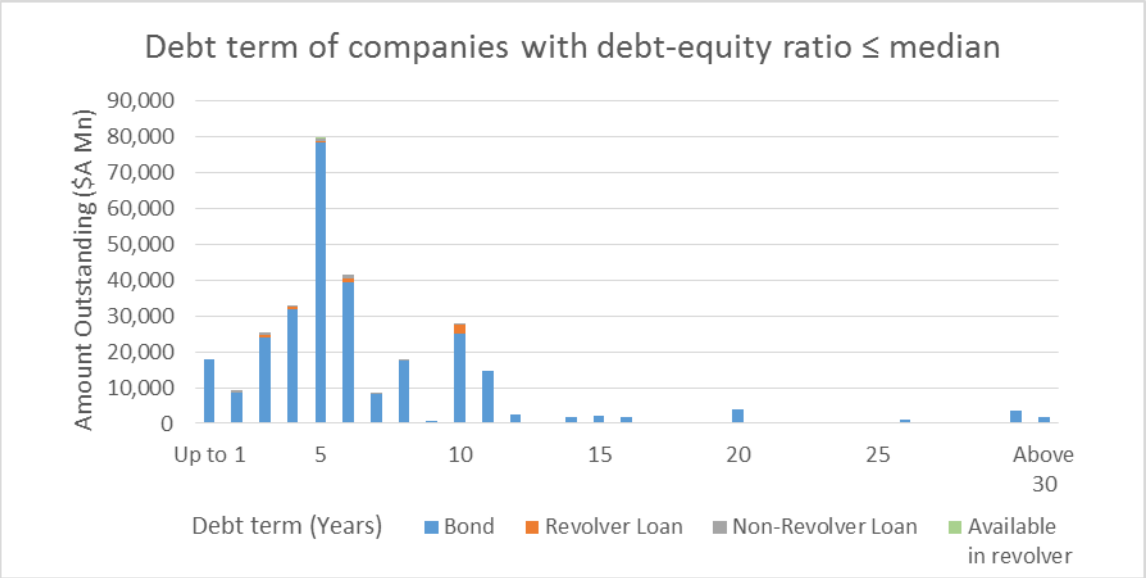



**Table 35: Average debt terms at issuance for debt issued by companies with debt-to-equity ratios above the median**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1401 | 16 | 25 | 1442 |
| Amount Outstanding ($A Mn) | 285,714.81 | 4,871.73 | 4,842.28 | 295,428.82 |
| Weighted average debt term | 6.21 | 6.91 | 4.26 | 6.19 |
| Simple average debt term | 10.01 | 3.92 | 6.12 | 9.84 |

## 9.4 Term of debt and credit ratings

141. We assess the term of debt at issuance across credit ratings by comparing the weighted average and simple average debt terms for each of the "broad" credit ratings from AA to B, as well as for debts with no credit rating. As mentioned in Section 3.2.7, the credit rating measure we applied was the S&P Long Term Local Currency Issuer Credit Rating. The weighted average debt term and simple average debt term for each broad crediting rating are shown below in Table 36.

142. Among the debts with credit ratings, those with broad BBB ratings have the highest weighted average debt term of 7.58 years, while those with broad AA ratings have the highest simple average debt term of 11.06 years. Broad B rated debts have the lowest weighted average and simple average debt terms at 3.96 and 3.99 years respectively. Furthermore, the averages for broad BB and broad B debts appear to

be considerably lower than the higher-rated debts. Sections 9.4.1 to 9.4.6 show the term of debt charts and average debt terms for the various broad credit ratings.

**Table 36: Average debt terms for different broad credit ratings**

| Broad credit rating | Weighted average debt term | Simple average debt term |
|---|---|---|
| AA | 6.75 | 11.06 |
| A | 7.30 | 7.74 |
| BBB | 7.58 | 7.53 |
| BB | 5.80 | 5.21 |
| B | 3.96 | 3.99 |
| No credit rating | 7.73 | 6.57 |

### 9.4.1 Debt term of broad AA rated debt

**Figure 46: Debt term at issuance for debts issued by companies with broad AA credit ratings**

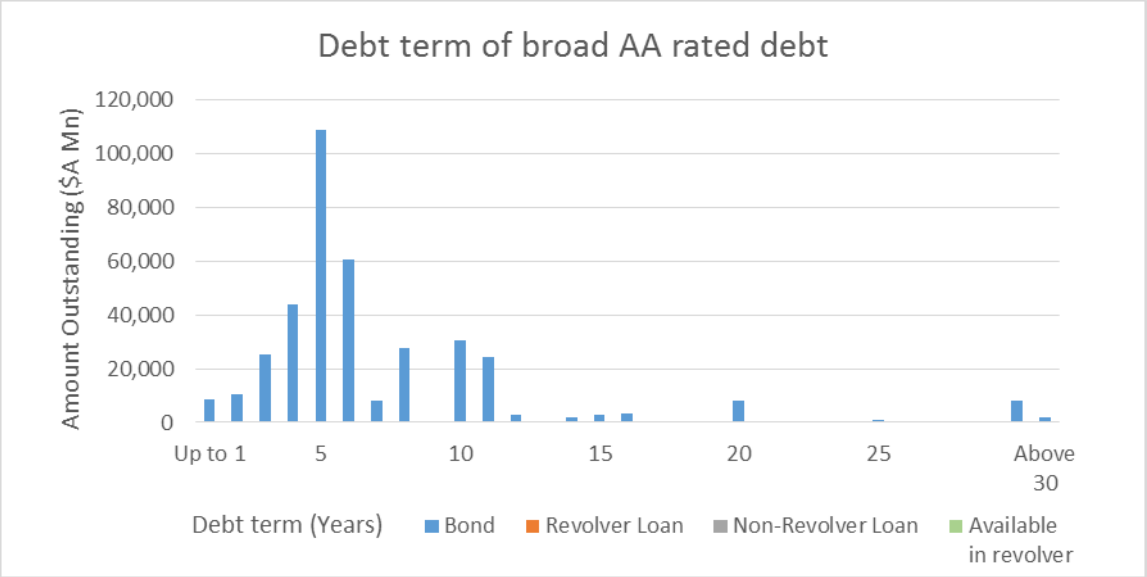



**Table 37: Average debt term at issuance for debts issued by companies with broad AA credit ratings**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2084 | 0 | 0 | 2084 |
| Amount Outstanding ($A Mn) | 380,761.98 | 0.00 | 0.00 | 380,761.98 |
| Weighted average debt term | 6.75 | N/A | N/A | 6.75 |
| Simple average debt term | 11.06 | N/A | N/A | 11.06 |

### 9.4.2 Debt term of broad A rated debt

**Figure 47: Debt term at issuance for debts issued by companies with broad A credit ratings**

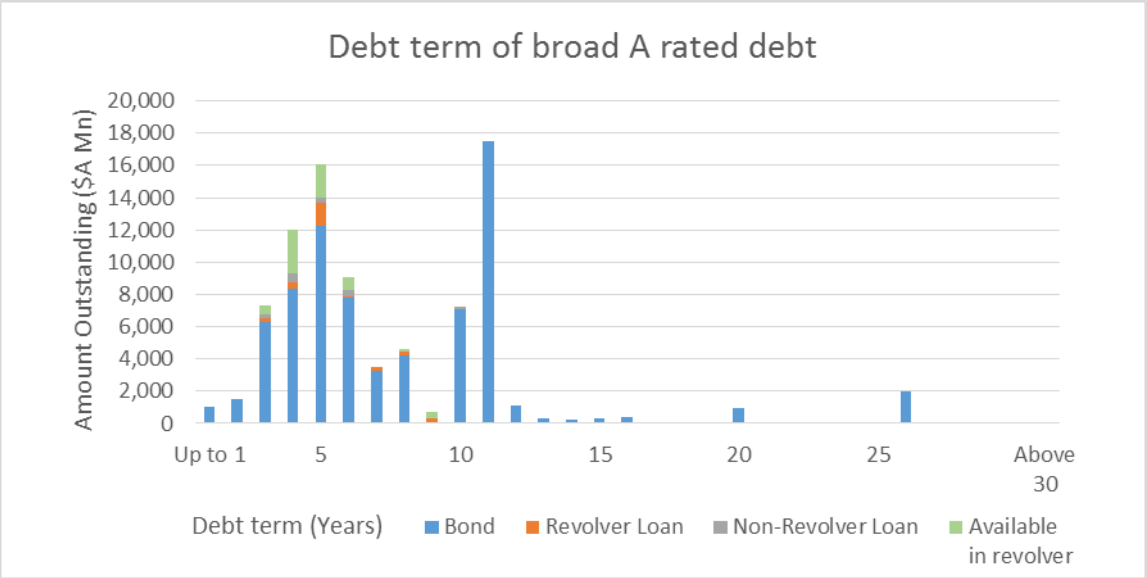



**Table 38: Average debt term at issuance for debts issued by companies with broad A credit ratings**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 336 | 32 | 8 | 376 |
| Amount Outstanding ($A Mn) | 74,849.68 | 2,880.50 | 1,588.97 | 79,319.15 |
| Weighted average debt term | 7.43 | 5.17 | 4.77 | 7.30 |
| Simple average debt term | 8.05 | 5.10 | 1.29 | 7.74 |

### 9.4.3 Debt term of broad BBB rated debt

**Figure 48: Debt term at issuance for debts issued by companies with broad BBB credit ratings**

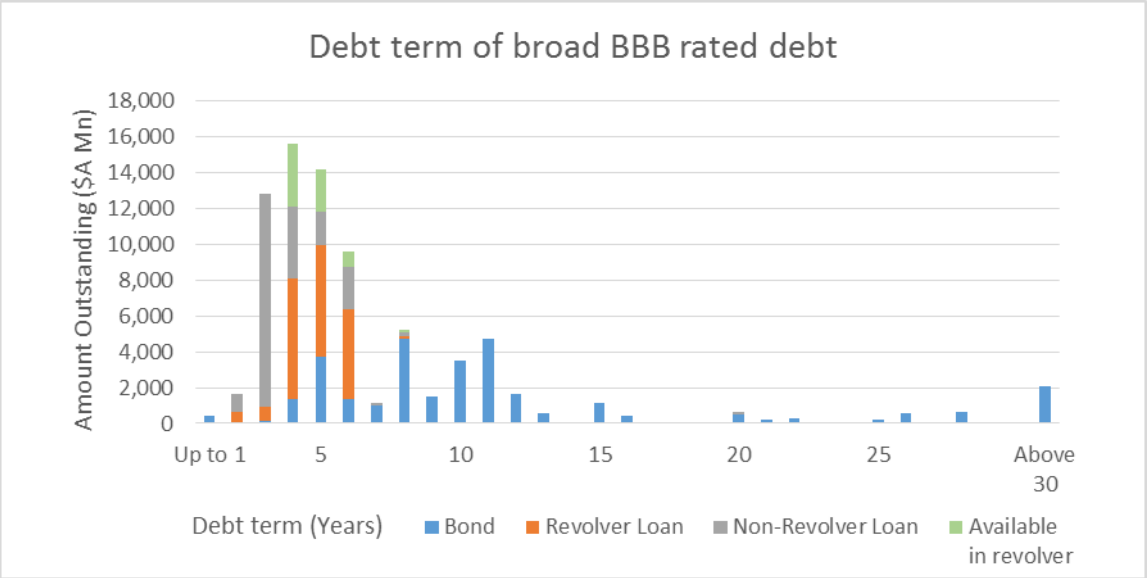



**Table 39: Average debt term at issuance for debts issued by companies with broad BBB credit ratings**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 121 | 68 | 33 | 222 |
| Amount Outstanding ($A Mn) | 30,698.95 | 19,551.13 | 21,676.64 | 71,926.72 |
| Weighted average debt term | 12.82 | 4.31 | 3.10 | 7.58 |
| Simple average debt term | 10.20 | 4.19 | 2.24 | 7.53 |

### 9.4.4 Debt term of broad BB rated debt

**Figure 49: Debt term at issuance for debts issued by companies with broad BB credit ratings**

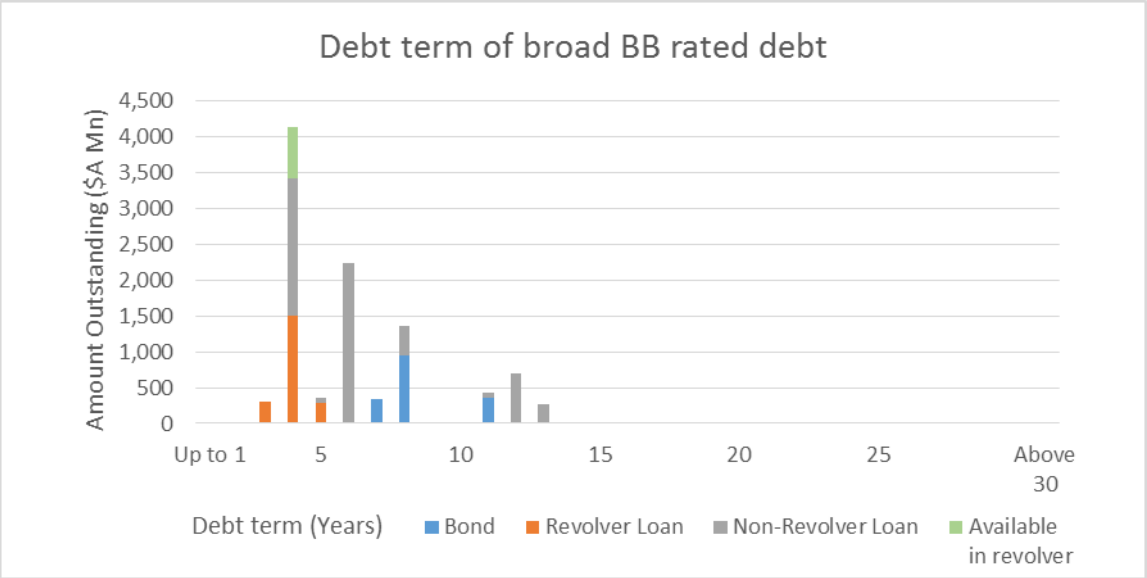



**Table 40: Average debt term at issuance for debts issued by companies with broad BB credit ratings**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 5 | 15 | 14 | 34 |
| Amount Outstanding ($A Mn) | 1,657.51 | 2,100.55 | 5,667.47 | 9,425.53 |
| Weighted average debt term | 7.63 | 3.49 | 6.13 | 5.80 |
| Simple average debt term | 7.61 | 3.45 | 5.82 | 5.21 |

### 9.4.5 Debt term of broad B rated debt

**Figure 50: Debt term at issuance for debts issued by companies with broad B credit ratings**

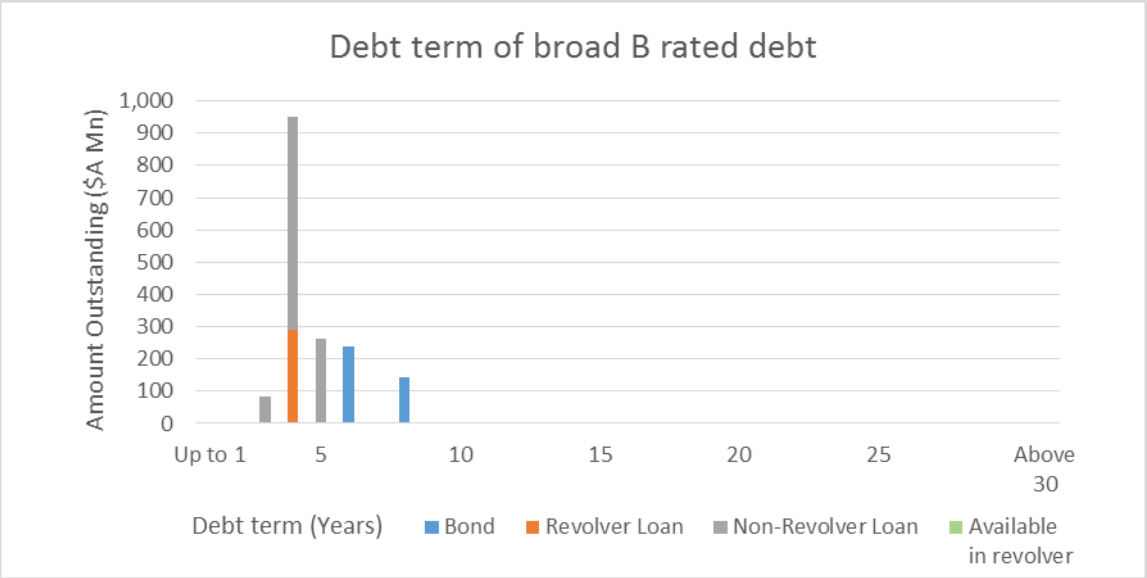



**Table 41: Average debt term at issuance for debts issued by companies with broad B credit ratings**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 2 | 4 | 8 |
| Amount Outstanding ($A Mn) | 380.81 | 290.00 | 1,005.36 | 1,676.18 |
| Weighted average debt term | 5.80 | 3.03 | 3.53 | 3.96 |
| Simple average debt term | 6.06 | 3.03 | 6.86 | 3.99 |

### 9.4.6 Debt term of debt with no credit rating

**Figure 51: Debt term at issuance for debts issued by companies with no credit rating**

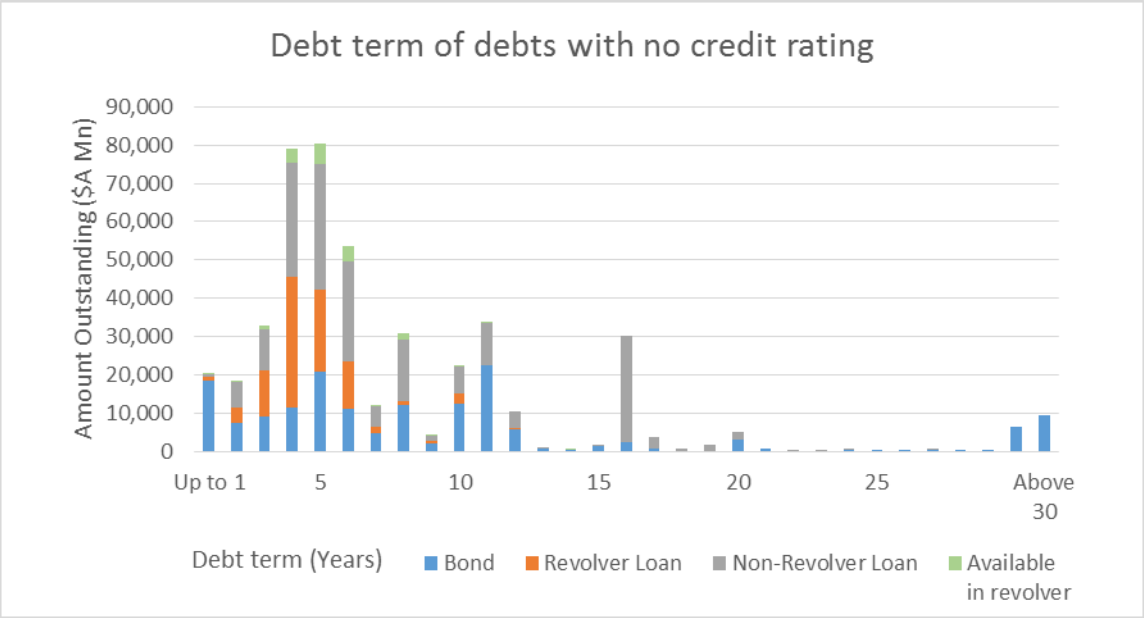



**Table 42: Average debt term at issuance for debts issued by companies with no credit rating**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 623 | 628 | 722 | 1973 |
| Amount Outstanding ($A Mn) | 165,729.53 | 91,193.65 | 188,458.12 | 445,381.30 |
| Weighted average debt term | 9.88 | 4.10 | 7.61 | 7.73 |
| Simple average debt term | 10.67 | 3.92 | 6.15 | 6.57 |

# 10 Debt issuance and debt maturity

143. This section presents the empirical evidence regarding the year of debt issuance and time to maturity for different subsamples. Section 10.1 investigates the term of debt at issuance for different industry sectors with different levels of competitiveness.

144. Section 10.2 compares year of debt issuance and time to maturity for the subsamples with parent company net fixed assets up to and including the median as compared to the subsample with net fixed assets above the median.

145. Section 10.3 considers the year of debt issuance and time to maturity for the subsample in which the parent company has a debt-to-equity ratio up to and including the median, as compared to the subsample with a debt-to-equity ratio above the median.

146. Section 10.4 assesses how the term of debt at issuance differs across broad credit ratings.

## 10.1 Debt maturity and industry competitiveness

147. As was done in Section 9.1, we refer again to Table 14 in Section 97, which classified the 12 industry sectors in the sample into high, medium, and low competition categories. The weighted average and simple average time to maturity for all 12 sectors are shown in Table 43.

148. Similar to the results for term of debt at issuance shown in Section 9.1, debts issued by firms in the technology sector have the lowest weighted average and simple average time to maturity at 2.81 years and 1.96 years respectively. Unlike the term of debt results in Section 9.1, however, debts issued by the government sector do not have the highest weighted average and simple average time to maturity. Instead, debts issued by the energy and financial sectors have the highest weighted average and simple average time to maturity at 10.28 years and 6.24 years respectively.

149. It was mentioned in Section 3.2.9 that the difference between the weighted average and simple average provides some information on the distribution of the underlying variable of interest, whereby a higher weighted average indicates that larger debts occur at longer timeframes and vice-versa. By comparing the weighted averages and simple averages in both Table 17 and Table 43, it can be seen that sectors with higher weighted average term of debt than their corresponding simple average term of debt usually exhibit the same pattern with regard to time to maturity. The single exception to is the communications sector, which had a simple average debt term 0.41 years longer than the weighted average, and a simple average time to maturity 0.71 years shorter than the weighted average.

150. Table 43 further shows that debts issued by the energy sector exhibit the largest difference between weighted average and simple average time to maturity, at 5.01 years. Furthermore, only the financial sector has a simple average time to maturity that is larger than its weighted average time to maturity, at 6.24 years and 3.86 years respectively, which indicates that it has several small debts due in the long-term horizon, and a small number of large debts due in the short-term.

151. Sections 10.1.1 to 10.1.4 show the year of debt issuance and year of debt maturity charts for all 12 sectors, as well as the tables containing averages for each debt type.

## Table 43: Average time to maturity by industry sector

| | Weighted average time to maturity | Simple average time to maturity |
|---|---|---|
| Financial | 3.86 | 6.24 |
| Consumer, non-cyclical | 3.25 | 3.24 |
| Industrial | 4.07 | 3.19 |
| Basic materials | 7.04 | 3.98 |
| Consumer, cyclical | 4.51 | 2.91 |
| Utilities | 7.17 | 4.84 |
| Communications | 3.98 | 3.27 |
| Technology | 2.81 | 1.96 |
| Energy | 10.28 | 5.27 |
| Funds | 4.94 | 2.42 |
| Government | 8.65 | 5.93 |
| Diversified | 3.45 | 2.61 |

### 10.1.1 Sectors with high level of competition

#### *10.1.1.1 Financial*

**Figure 52: Year of debt issuance for all debts issued by companies in the financial sector**

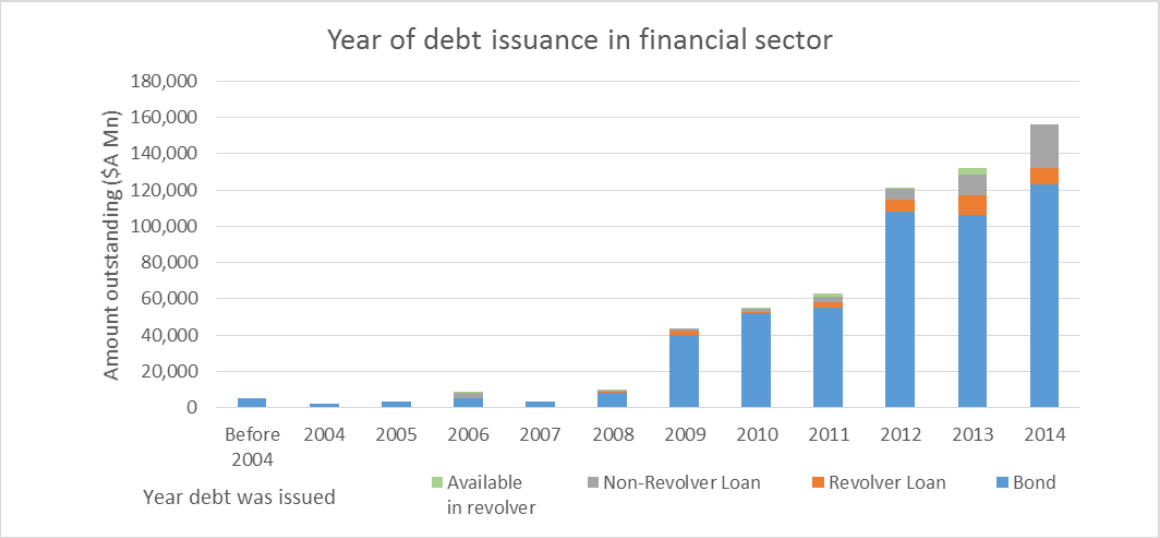
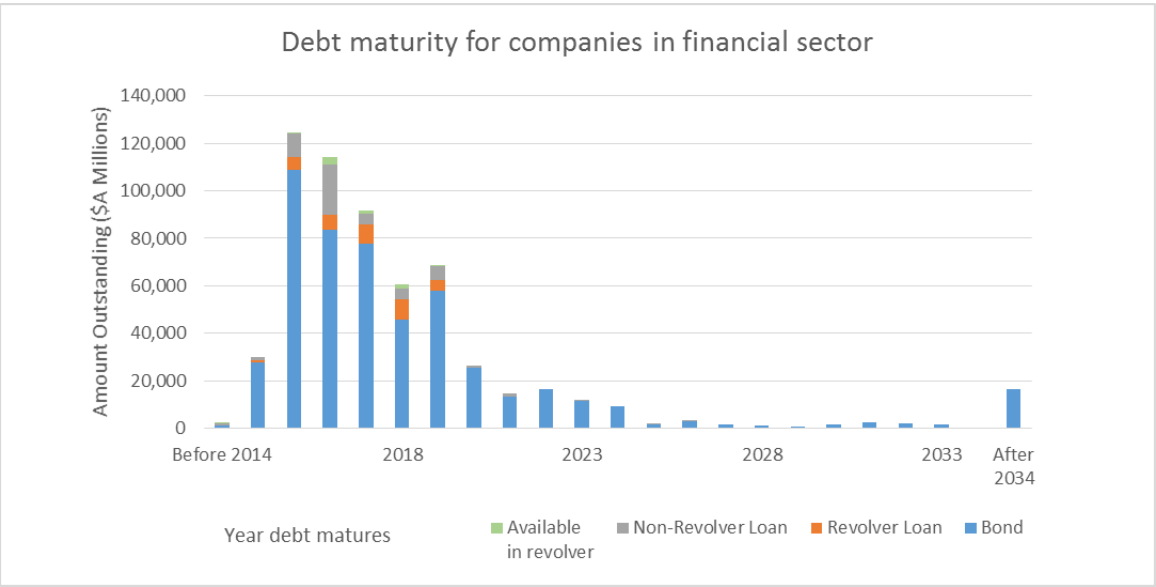



**Figure 53: Year of debt maturity for all debts issued by companies in the financial sector**

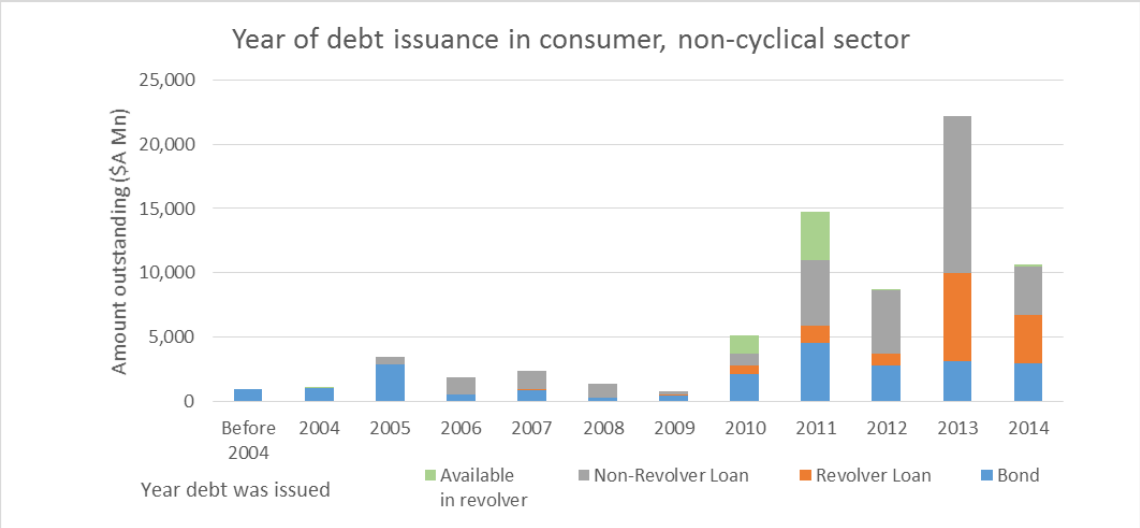


## Table 44: Average time to maturity for all debts issued by companies in the financial sector

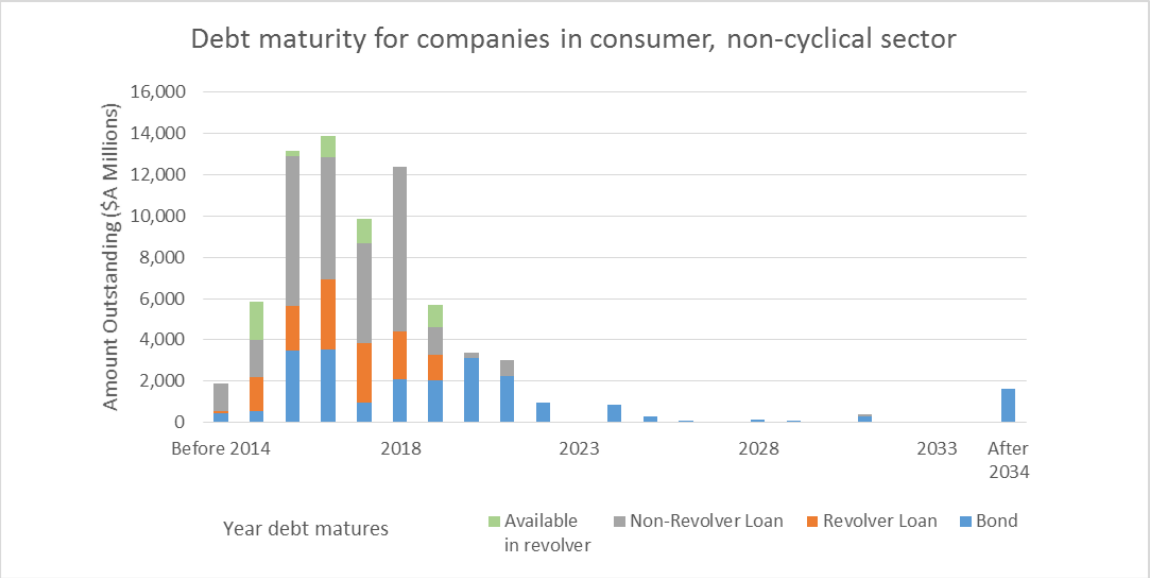
| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2771 | 179 | 160 | 3110 |
| Amount Outstanding ($A Mn) | 512,435.61 | 34,076.66 | 50,319.63 | 596,831.89 |
| Weighted average time to maturity | 4.10 | 2.73 | 2.27 | 3.86 |
| Simple average time to maturity | 6.65 | 2.38 | 1.98 | 6.24 |

#### *10.1.1.2 Consumer, non-cyclical*

## Figure 54: Year of debt issuance for all debts issued by companies in the consumer, non-cyclical sector



## Figure 55: Year of debt maturity for all debts issued by companies in the consumer, non-cyclical sector




## Table 45: Average time to maturity for all debts issued by companies in the non-cyclical sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 86 | 126 | 119 | 331 |
| Amount Outstanding ($A Mn) | 22,761.31 | 13,717.44 | 31,546.31 | 68,025.06 |
| Weighted average time to maturity | 5.42 | 2.12 | 2.16 | 3.25 |
| Simple average time to maturity | 6.24 | 1.95 | 2.24 | 3.24 |

### 10.1.2 Sectors with medium level of competition

#### *10.1.2.1 Industrial*

**Figure 56: Year of debt issuance for all debts issued by companies in the industrial sector**

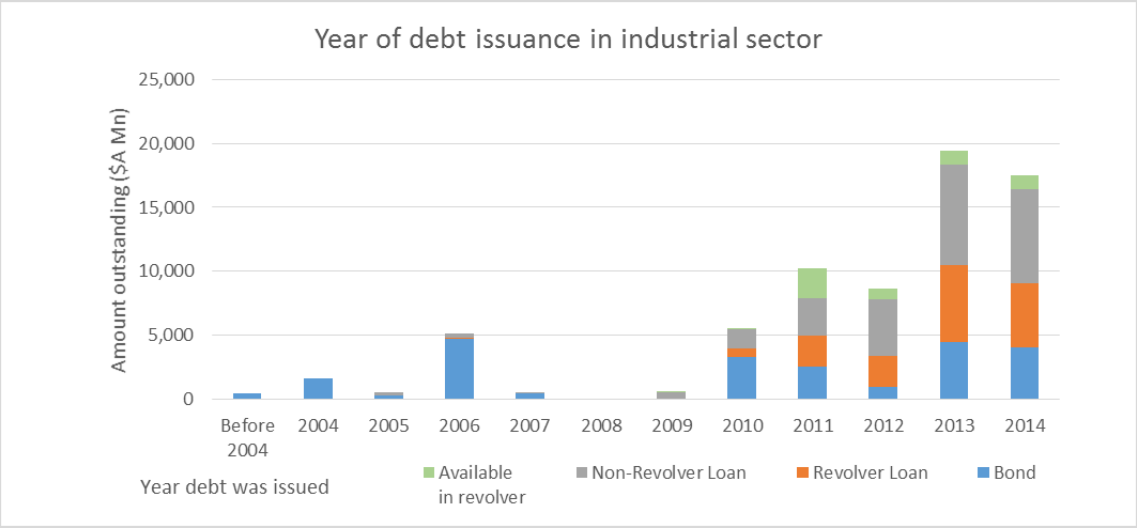
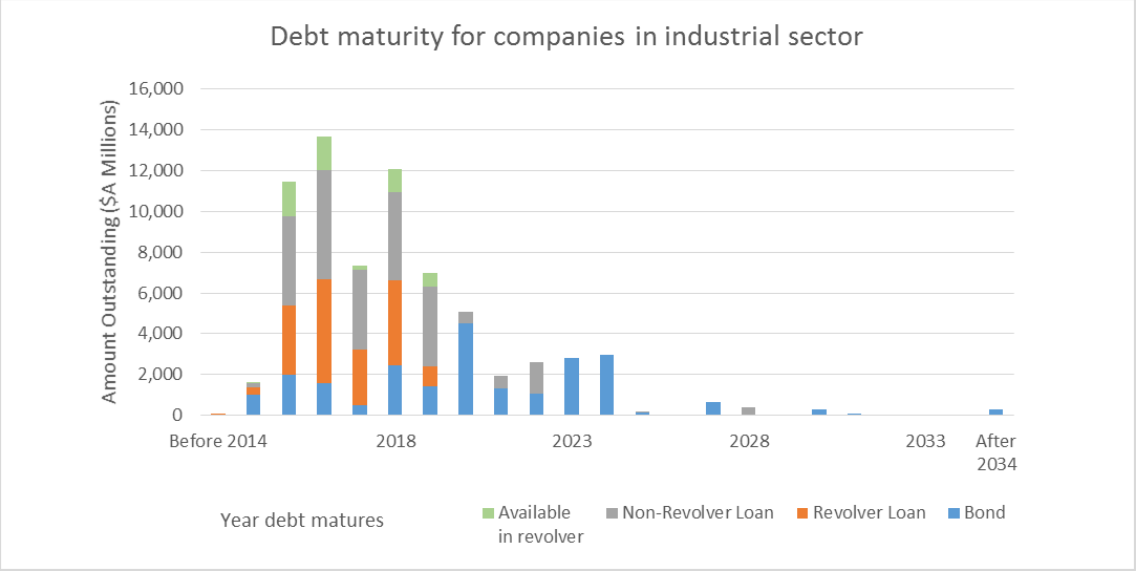



**Figure 57: Year of debt maturity for all debts issued by companies in the industrial sector**

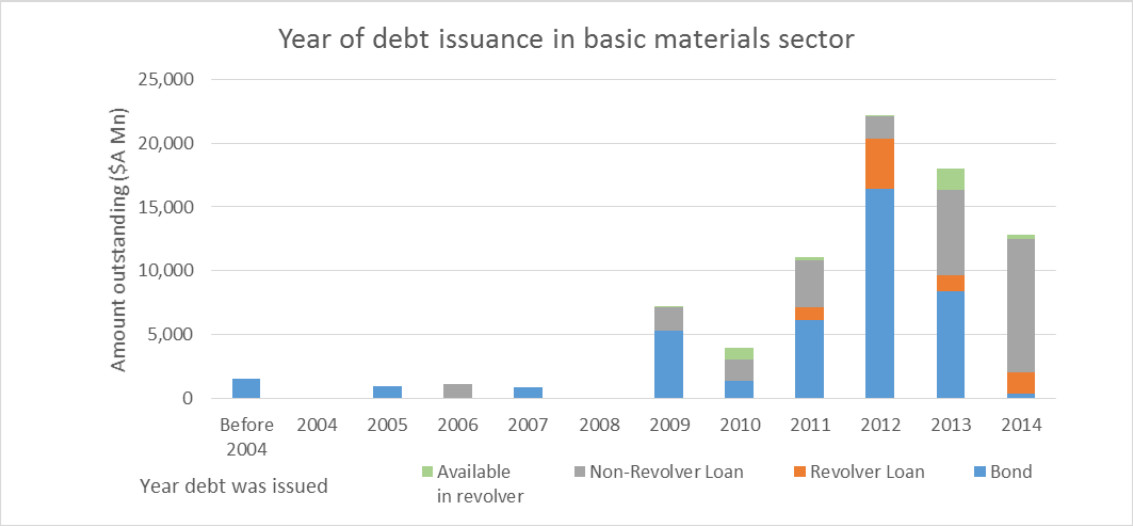


## Table 46: Average time to maturity for all debts issued by companies in the industrial sector

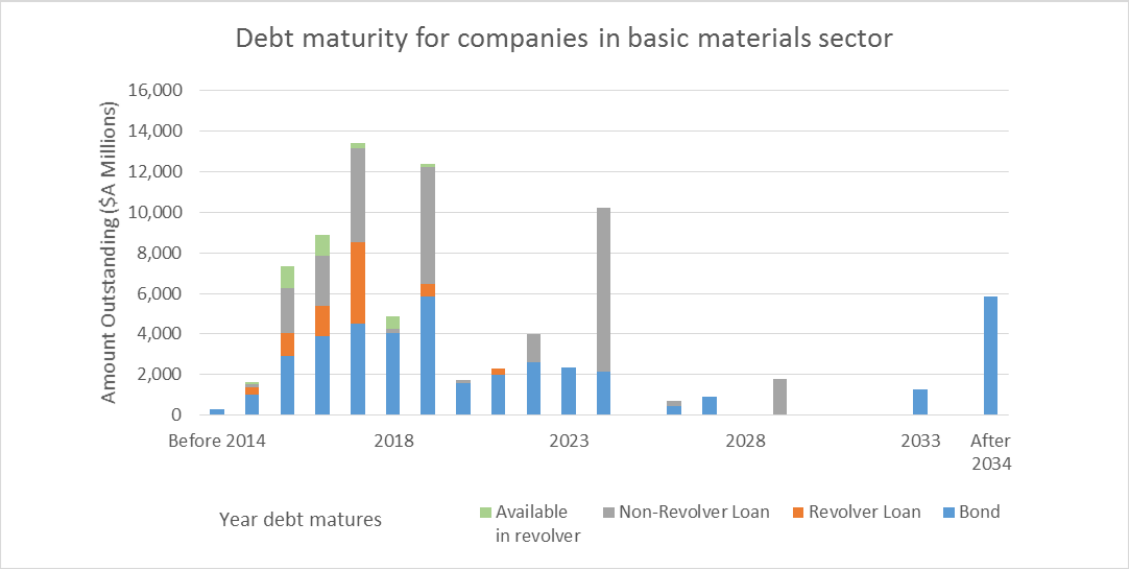
| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 77 | 131 | 127 | 335 |
| Amount Outstanding ($A Mn) | 23,065.25 | 16,760.40 | 25,197.76 | 65,023.41 |
| Weighted average time to maturity | 6.12 | 2.37 | 3.32 | 4.07 |
| Simple average time to maturity | 5.70 | 2.00 | 2.69 | 3.19 |

#### *10.1.2.2 Basic Materials*

## Figure 58: Year of debt issuance for all debts issued by companies in the basic materials sector



## Figure 59: Year of debt maturity for all debts issued by companies in the basic materials sector




## Table 47: Average time to maturity for all debts issued by companies in the basic materials sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 61 | 60 | 88 | 209 |
| Amount Outstanding ($A Mn) | 41,537.67 | 7,843.85 | 27,273.80 | 76,655.31 |
| Weighted average time to maturity | 8.49 | 2.53 | 6.13 | 7.04 |
| Simple average time to maturity | 6.57 | 2.08 | 4.39 | 3.98 |

### *10.1.2.3 Consumer, Cyclical*

**Figure 60: Year of debt issuance for all debts issued by companies in the consumer, cyclical sector**

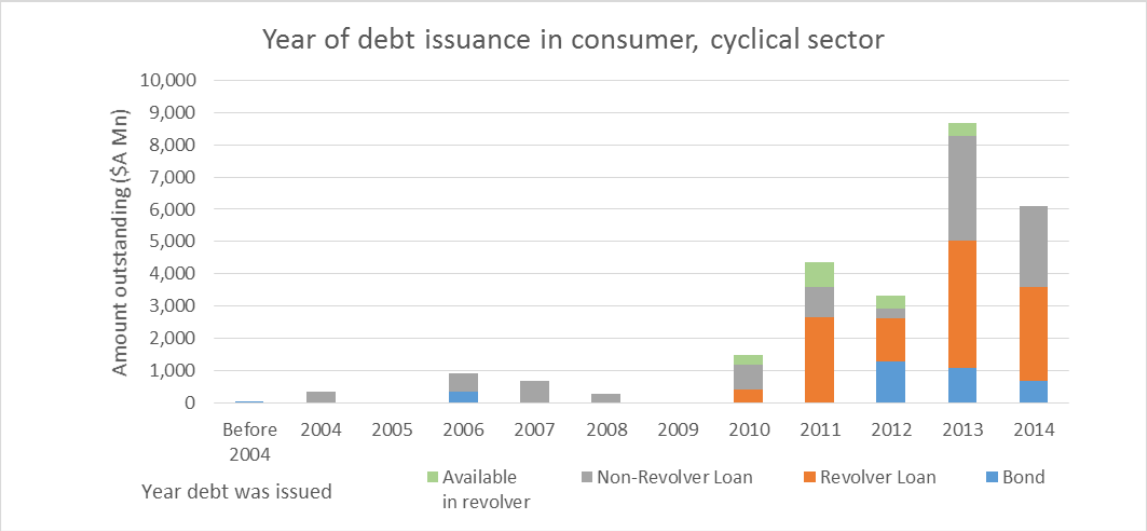
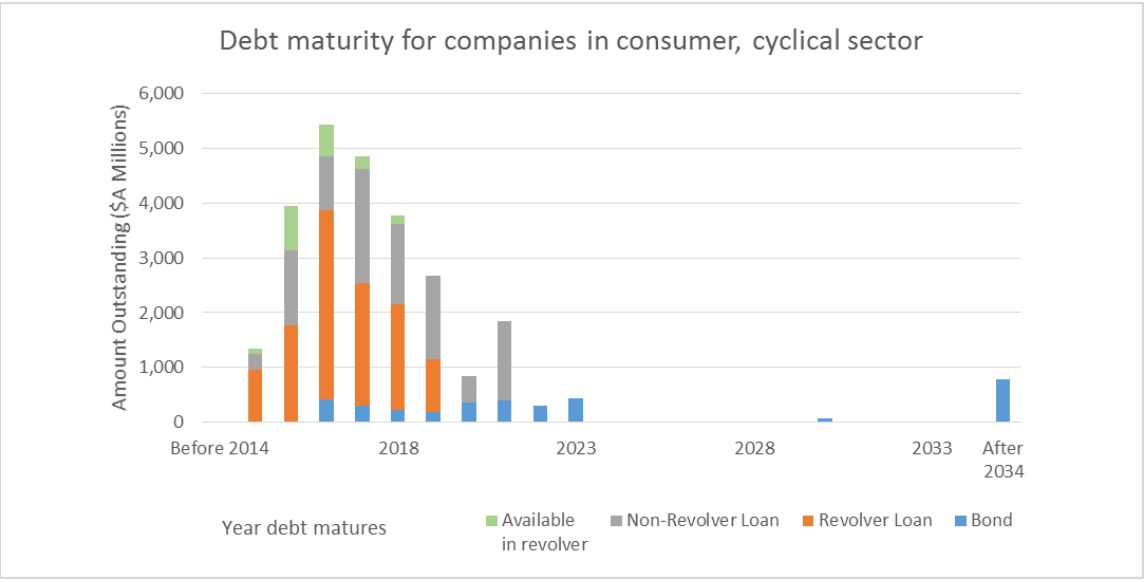



**Figure 61: Year of debt maturity for all debts issued by companies in the consumer, cyclical sector**

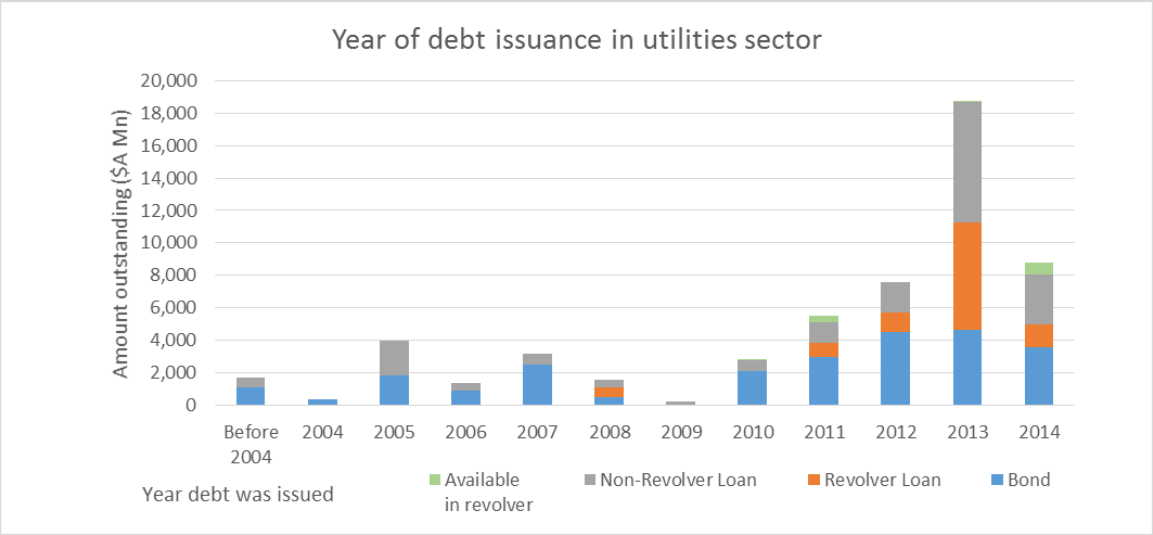


## Table 48: Average time to maturity for all debts issued by companies in the consumer, cyclical sector

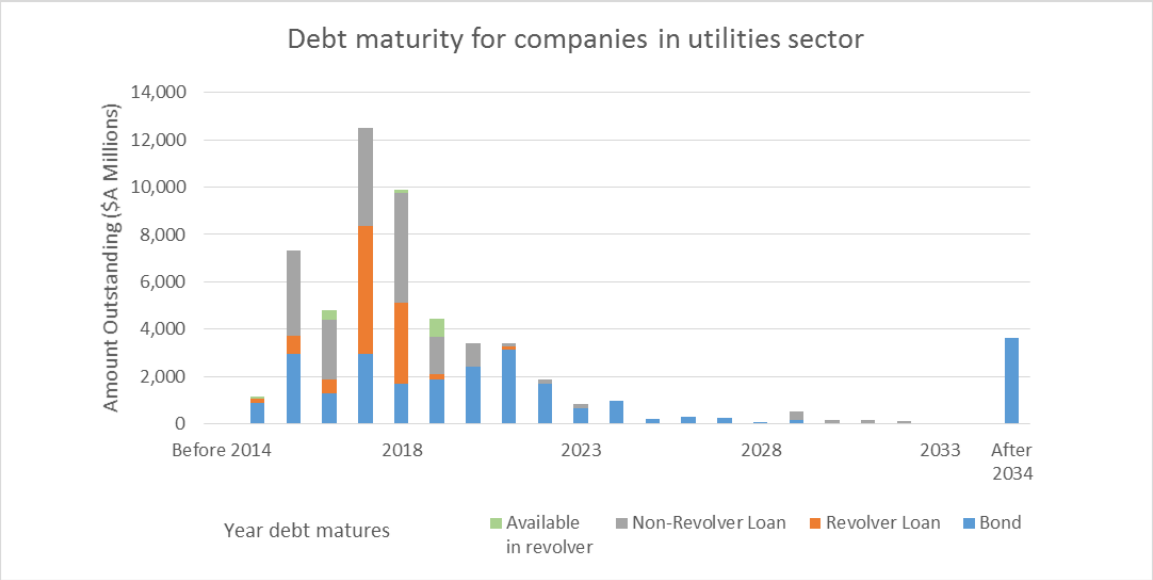
| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 15 | 98 | 65 | 178 |
| Amount Outstanding ($A Mn) | 3,481.55 | 11,287.71 | 9,653.82 | 24,423.07 |
| Weighted average time to maturity | 14.83 | 2.23 | 3.47 | 4.51 |
| Simple average time to maturity | 10.25 | 2.13 | 1.59 | 2.91 |

#### *10.1.2.4 Utilities*

## Figure 62: Year of debt issuance for all debts issued by companies in the utilities sector



## Figure 63: Year of debt maturity for all debts issued by companies in the utilities sector




## Table 49: Average time to maturity for all debts issued by companies in the utilities sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 76 | 43 | 91 | 210 |
| Amount Outstanding ($A Mn) | 25,190.74 | 10,776.21 | 18,658.52 | 54,625.46 |
| Weighted average time to maturity | 11.69 | 2.95 | 3.49 | 7.17 |
| Simple average time to maturity | 7.26 | 2.28 | 7.73 | 4.84 |

### 10.1.3 Sectors with low level of competition

#### *10.1.3.1 Communications*

**Figure 64: Year of debt issuance for all debts issued by companies in the communications sector**

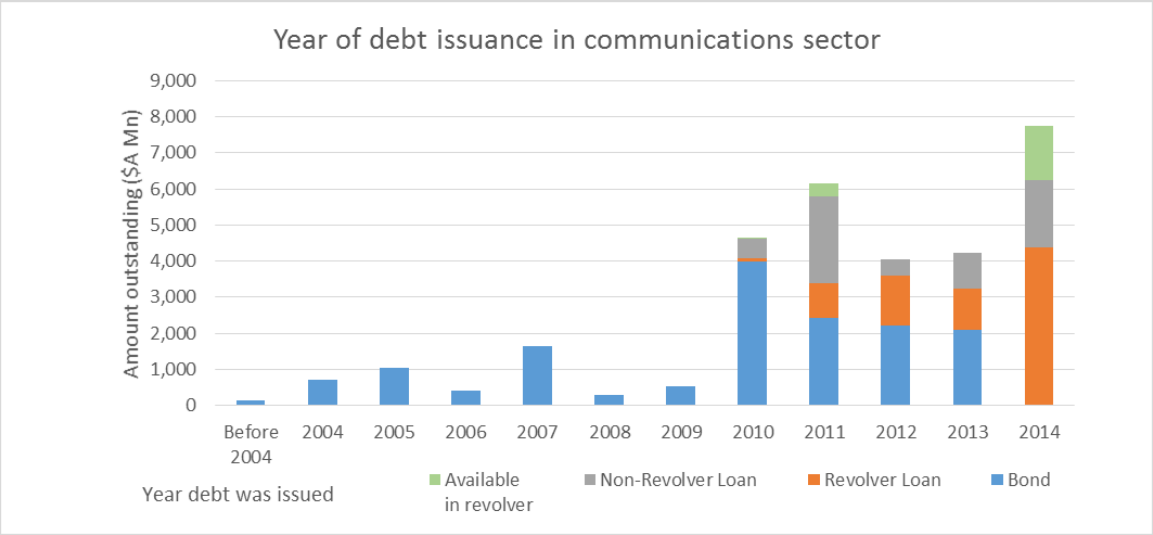
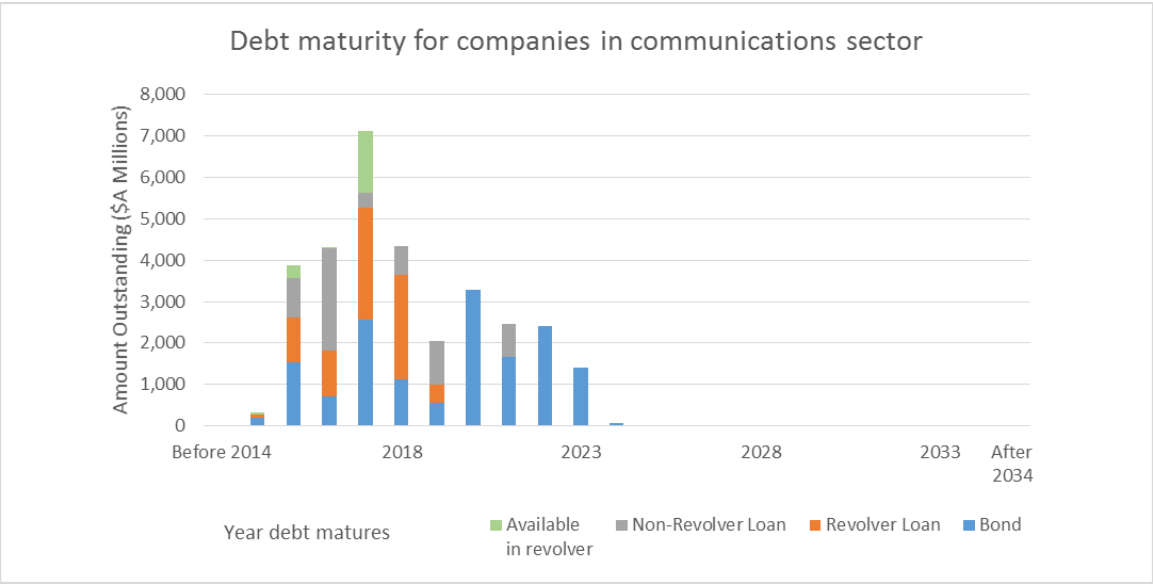



**Figure 65: Year of debt maturity for all debts issued by companies in the communications sector**

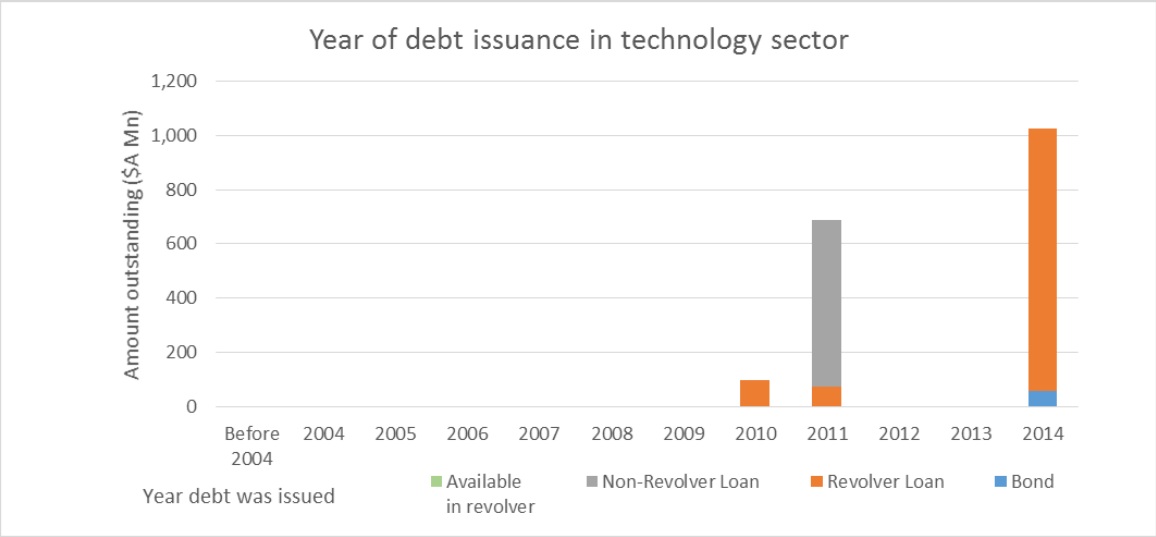


## Table 50: Average time to maturity for all debts issued by companies in the communications sector

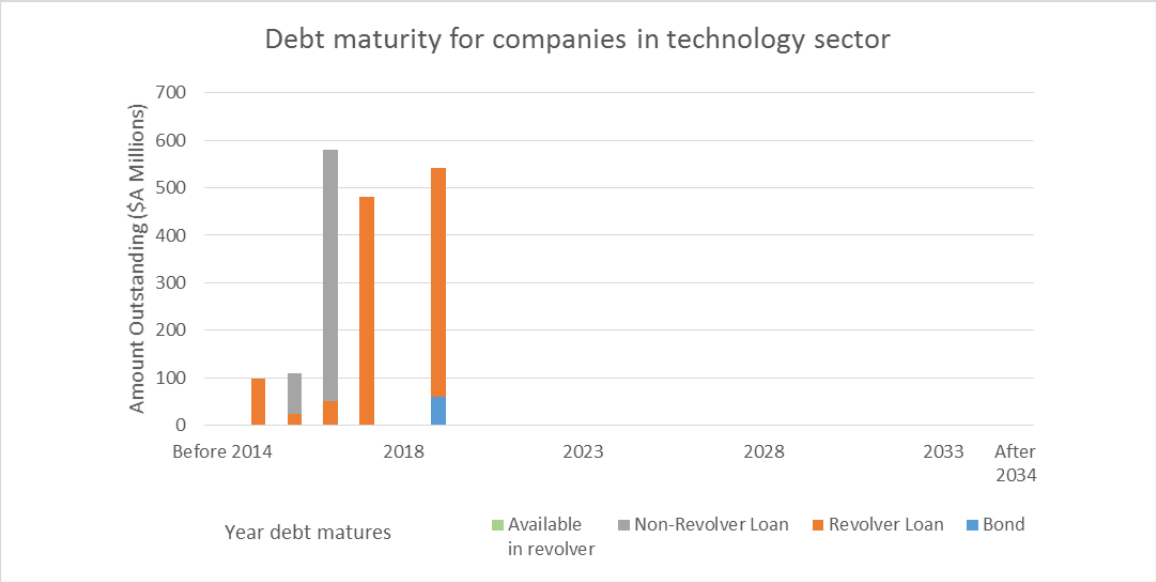
| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 46 | 44 | 25 | 115 |
| Amount Outstanding ($A Mn) | 15,522.87 | 7,929.83 | 6,302.07 | 29,754.76 |
| Weighted average time to maturity | 5.03 | 2.57 | 3.18 | 3.98 |
| Simple average time to maturity | 4.29 | 2.37 | 1.68 | 3.27 |

#### *10.1.3.2 Technology*

## Figure 66: Year of debt issuance for all debts issued by companies in the technology sector



## Figure 67: Year of debt maturity for all debts issued by companies in the technology sector




## Table 51: Average time to maturity for all debts issued by companies in the technology sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 6 | 6 | 13 |
| Amount Outstanding ($A Mn) | 60.00 | 1,135.46 | 615.00 | 1,810.46 |
| Weighted average time to maturity | 4.65 | 3.29 | 1.74 | 2.81 |
| Simple average time to maturity | 4.65 | 1.69 | 1.13 | 1.96 |

### *10.1.3.3 Energy*

**Figure 68: Year of debt issuance for all debts issued by companies in the energy sector**

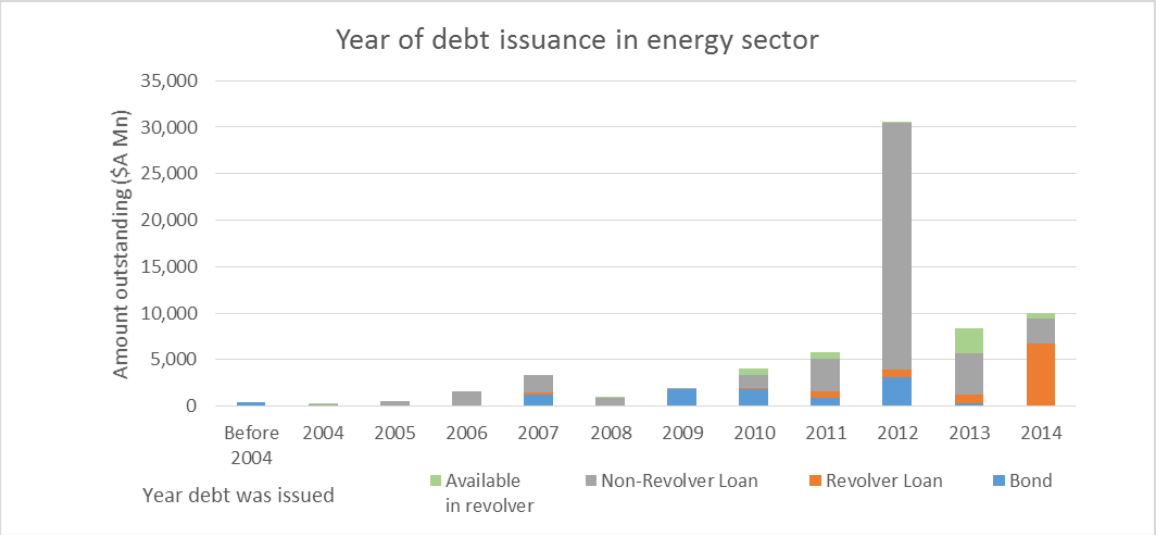
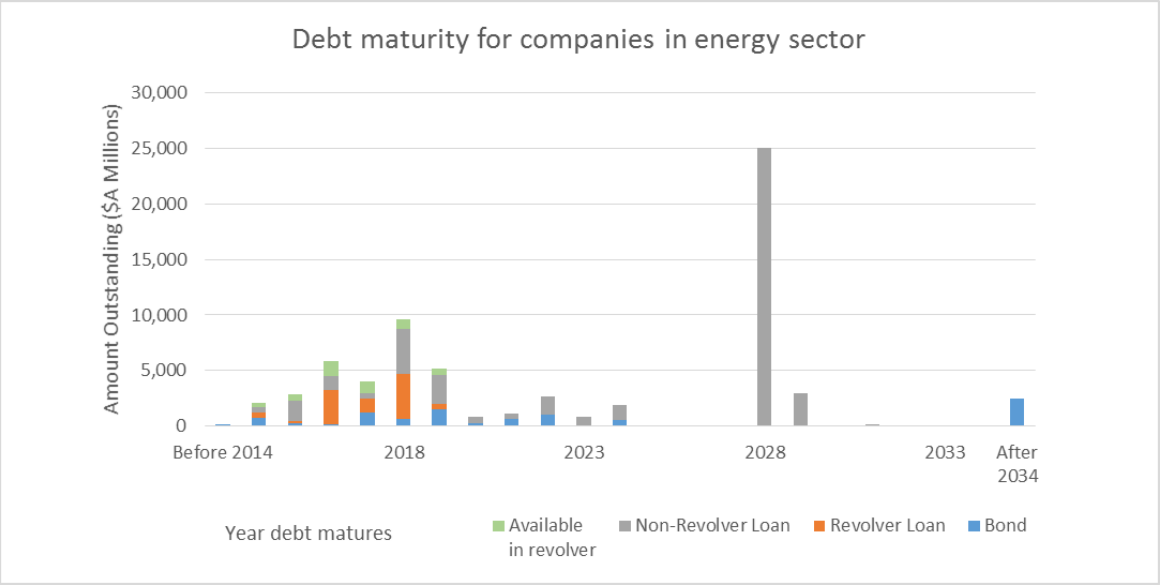



**Figure 69: Year of debt maturity for all debts issued by companies in the energy sector**



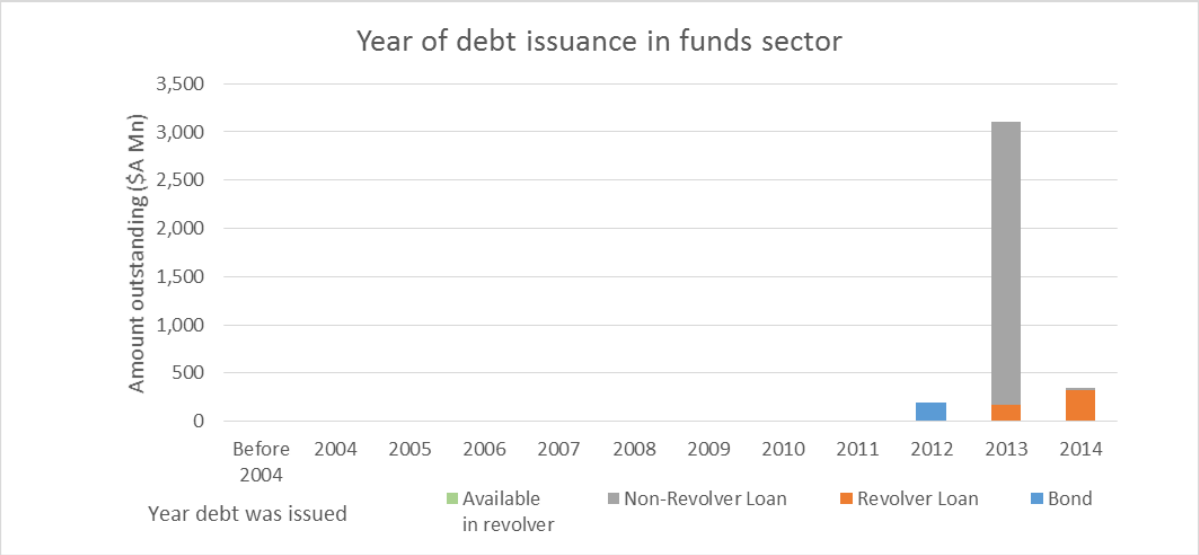
## Table 52: Average time to maturity for all debts issued by companies in the energy sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 37 | 43 | 86 | 166 |
| Amount Outstanding ($A Mn) | 9,823.48 | 9,443.77 | 43,641.07 | 62,908.32 |
| Weighted average time to maturity | 15.63 | 2.74 | 10.70 | 10.28 |
| Simple average time to maturity | 6.86 | 2.53 | 11.07 | 5.27 |

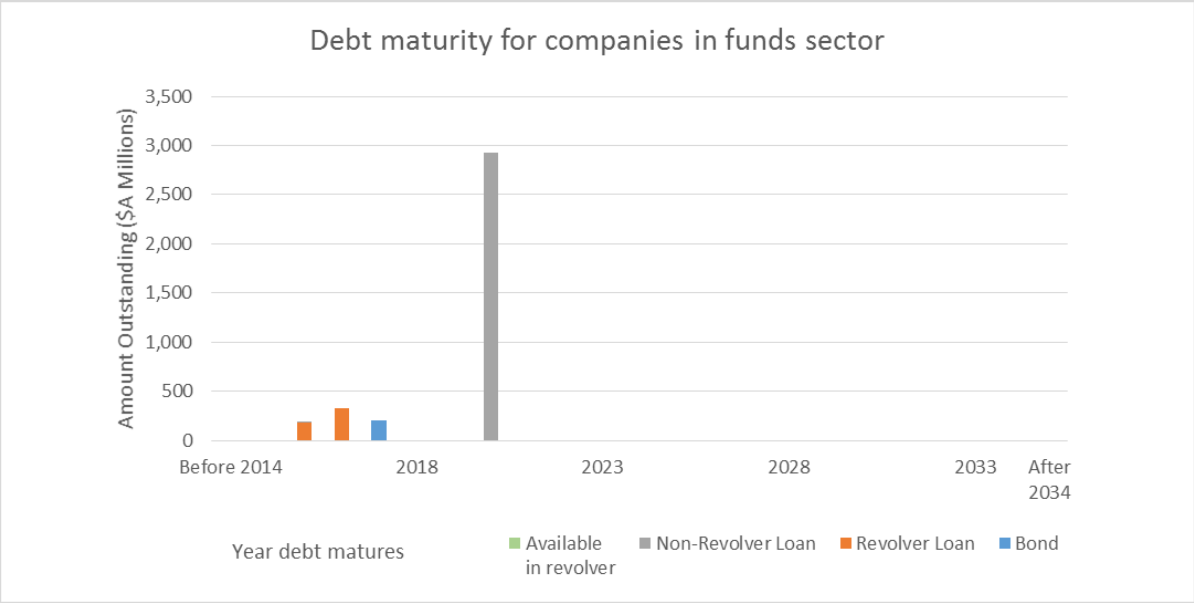
### 10.1.4 Unclassified sectors

#### *10.1.4.1 Funds*

## Figure 70: Year of debt issuance for all debts issued by companies in the funds sector



## Figure 71: Year of debt maturity for all debts issued by companies in the funds sector




## Table 53: Average time to maturity for all debts issued by companies in the funds sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 4 | 3 | 8 |
| Amount Outstanding ($A Mn) | 200.00 | 500.00 | 2,950.85 | 3,650.85 |
| Weighted average time to maturity | 3.07 | 1.15 | 5.71 | 4.94 |
| Simple average time to maturity | 3.07 | 0.97 | 3.11 | 2.42 |

#### *10.1.4.2 Government*

**Figure 72: Year of debt issuance for all debts issued by companies in the government sector**

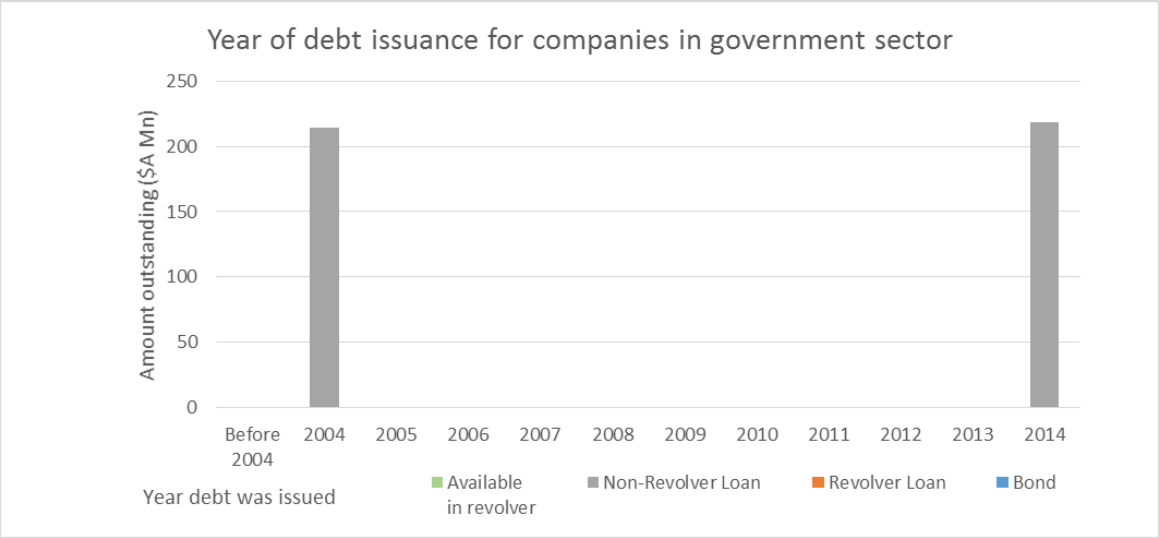
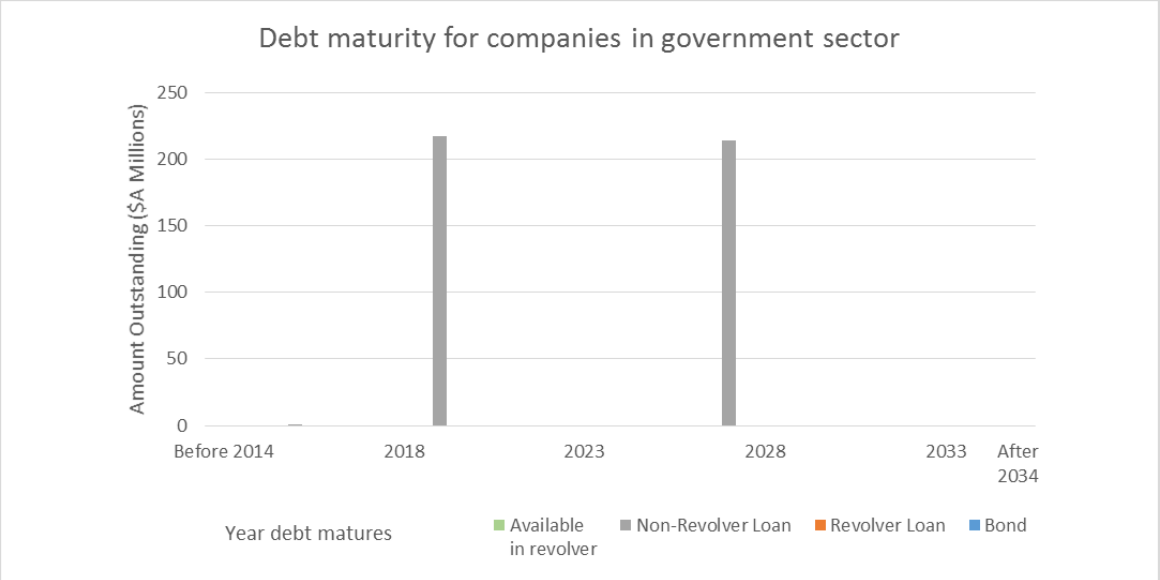



**Figure 73: Year of debt maturity for all debts issued by companies in the government sector**



## Table 54: Average time to maturity for all debts issued by companies in the government sector

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 0 | 3 | 3 |
| Amount Outstanding ($A Mn) | 0.00 | 0.00 | 432.09 | 432.09 |
| Weighted average time to maturity | N/A | N/A | 8.65 | 8.65 |
| Simple average time to maturity | N/A | N/A | N/A | 5.93 |

#### *10.1.4.3 Diversified*

## Figure 74: Year of debt issuance for all debts issued by companies in the diversified sector

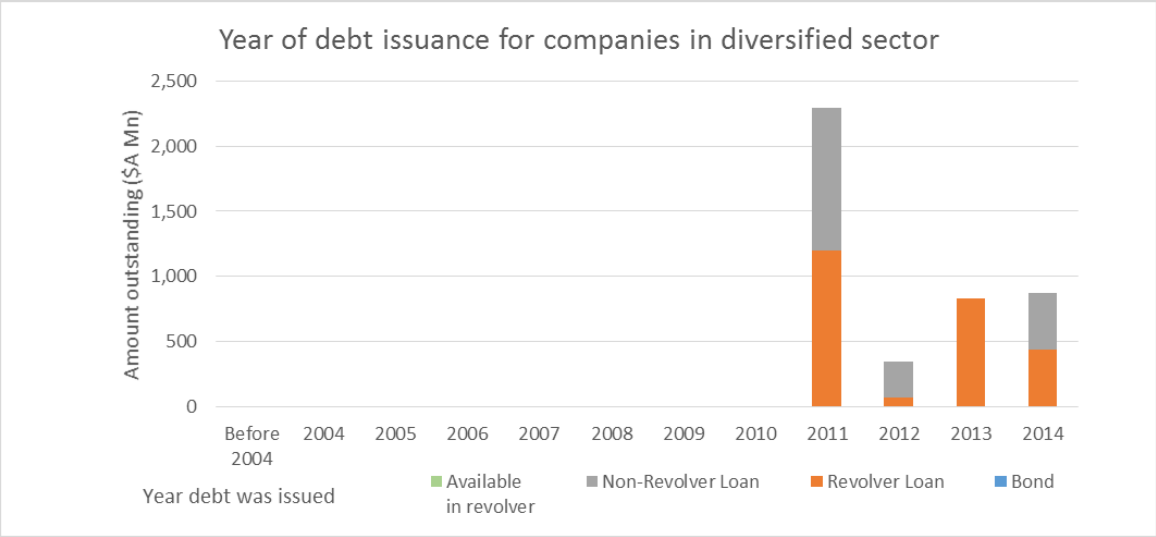


**Figure 75: Year of debt maturity for all debts issued by companies in the financial sector**

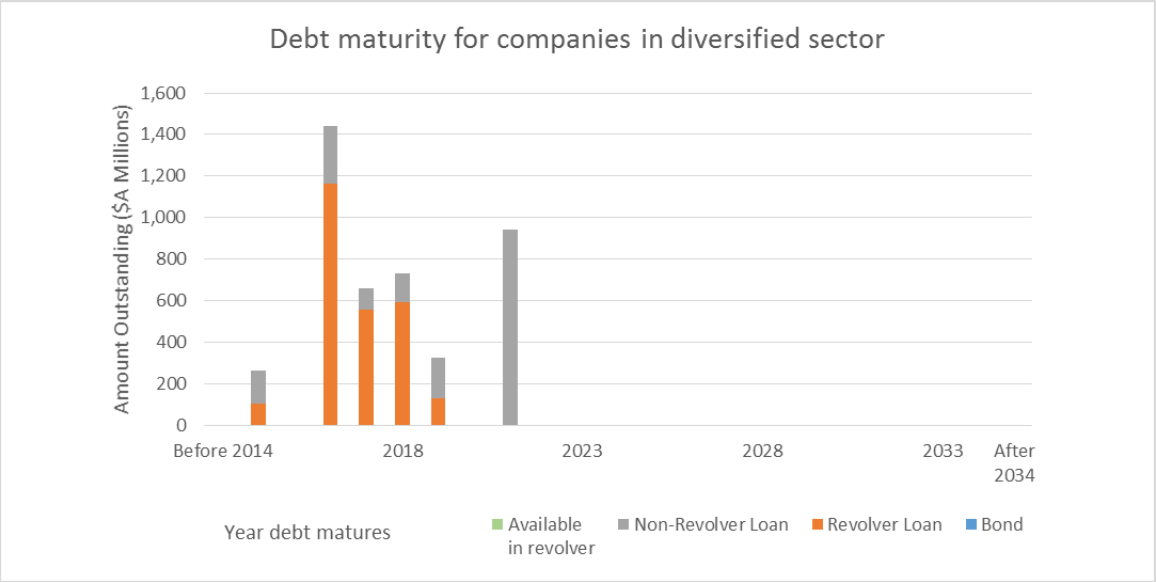



**Table 55: Average time to maturity for all debts issued by companies in the diversified sector**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 11 | 8 | 19 |
| Amount Outstanding ($A Mn) | 0.00 | 2,544.51 | 1,805.65 | 4,350.16 |
| Weighted average time to maturity | N/A | 2.40 | 4.93 | 3.45 |
| Simple average time to maturity | N/A | 2.30 | 2.22 | 2.61 |

## 10.2 Debt maturity and fixed cost levels

152. In order to compare debt maturities for parent companies with different fixed cost levels, the sample is divided into the same two subsamples in Section 9.2, with one subsample containing debts issued by parent companies with net fixed asset values up to and including the median ($A 1,952 million), and the other containing debts issued by parent companies with net fixed asset values above the median. The weighted average debt term and simple average debt term for both groups are shown below in Table 56.

153. The weighted average and simple average time to maturity for debts where the parent company has net fixed assets up to and including the median are 3.32 years and 4.59 years respectively. When the parent company has net fixed assets above the median, the weighted average time to maturity is 5.28 years and the simple average time to maturity is 6.86 years. Sections 10.2.1 and 10.2.2 show charts

containing the year of debt issuance and year of debt maturity for both subsamples, as well as the average debt terms for all three types of debt.

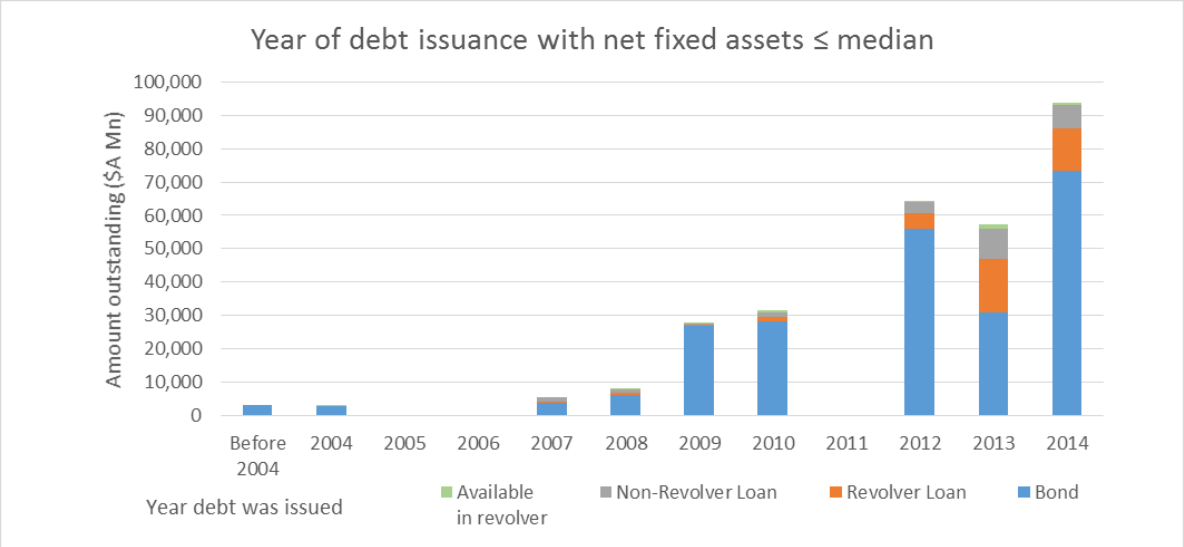
154. We note that Figure 76 and Figure 78 do not accurately show the amount of debt issued in 2005, 2006, and 2011. This is because Bloomberg does not have any historical data on fixed costs for those years, as pointed out in Section 3.2.5.

**Table 56: Average time to maturity for different fixed cost levels**

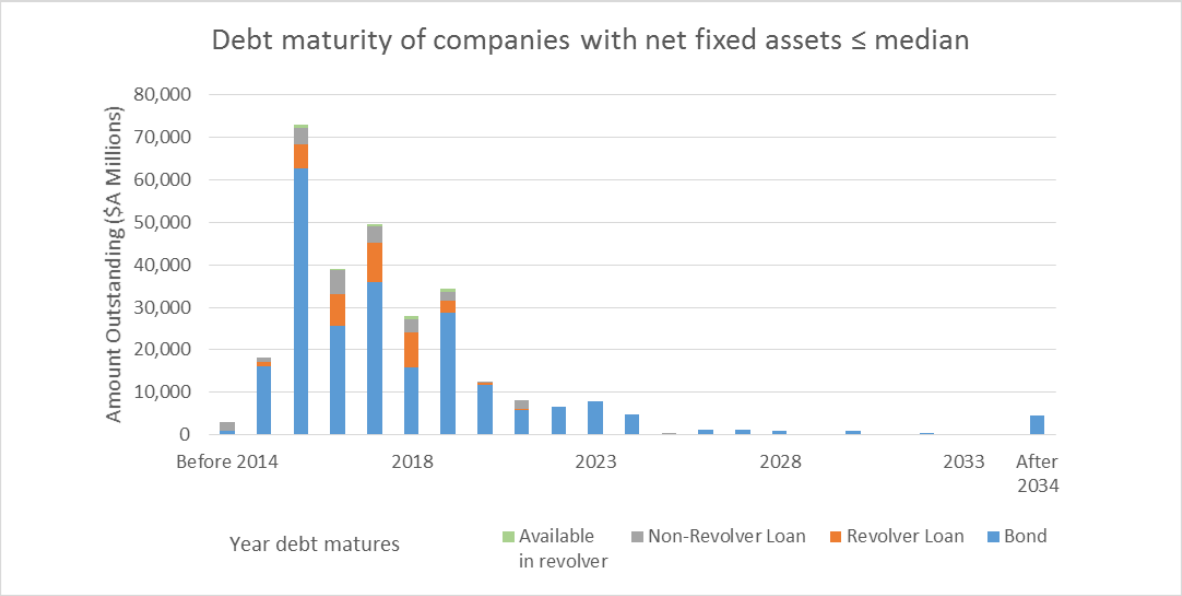
| Fixed cost levels | Weighted average time to maturity | Simple average time to maturity |
|---|---|---|
| ≤ Median ($A 1,952 Mn) | 3.32 | 4.59 |
| > Median ($A 1,952 Mn) | 5.28 | 6.86 |

### 10.2.1 Fixed cost levels up to and including the median

**Figure 76: Year of debt issuance for debts issued by companies with net fixed assets up to and including the median**



## Figure 77: Time to maturity for debts issued by companies with net fixed assets up to and including the median




## Table 57: Average time to maturity for debt issued by companies with net fixed assets up to and including the median

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1085 | 286 | 148 | 1519 |
| Amount Outstanding ($A Mn) | 232,209.32 | 35,264.86 | 23,552.14 | 291,026.31 |
| Weighted average time to maturity | 3.55 | 2.54 | 2.26 | 3.32 |
| Simple average time to maturity | 5.51 | 2.21 | 1.04 | 4.59 |

### 10.2.2 Fixed cost levels above the median

**Figure 78: Year of debt issuance for debts issued by companies with net fixed assets above the median**

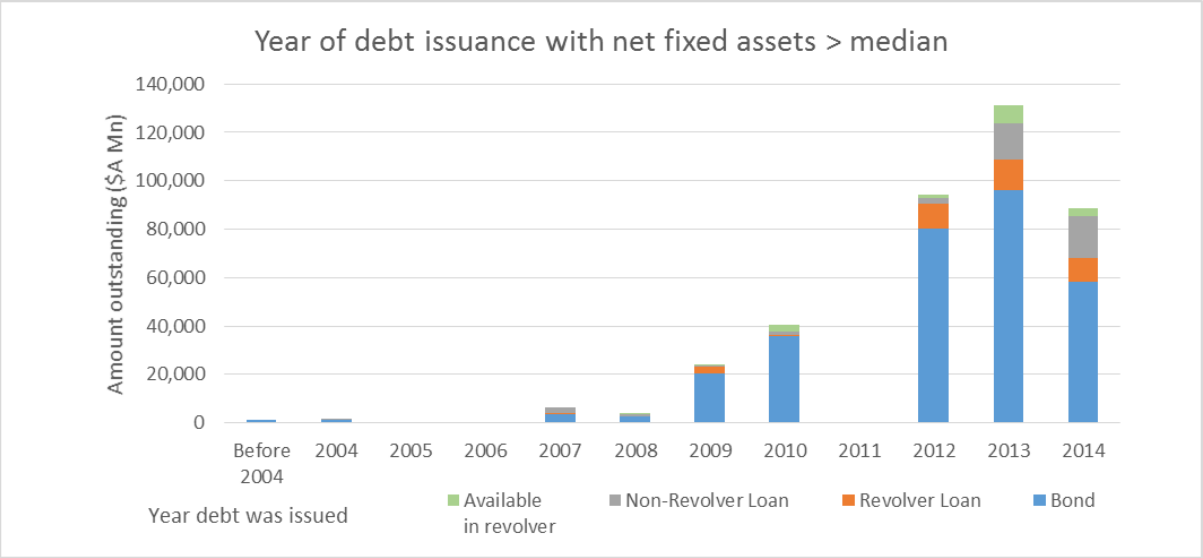



**Figure 79: Time to maturity for debts issued by companies with net fixed assets above the median**

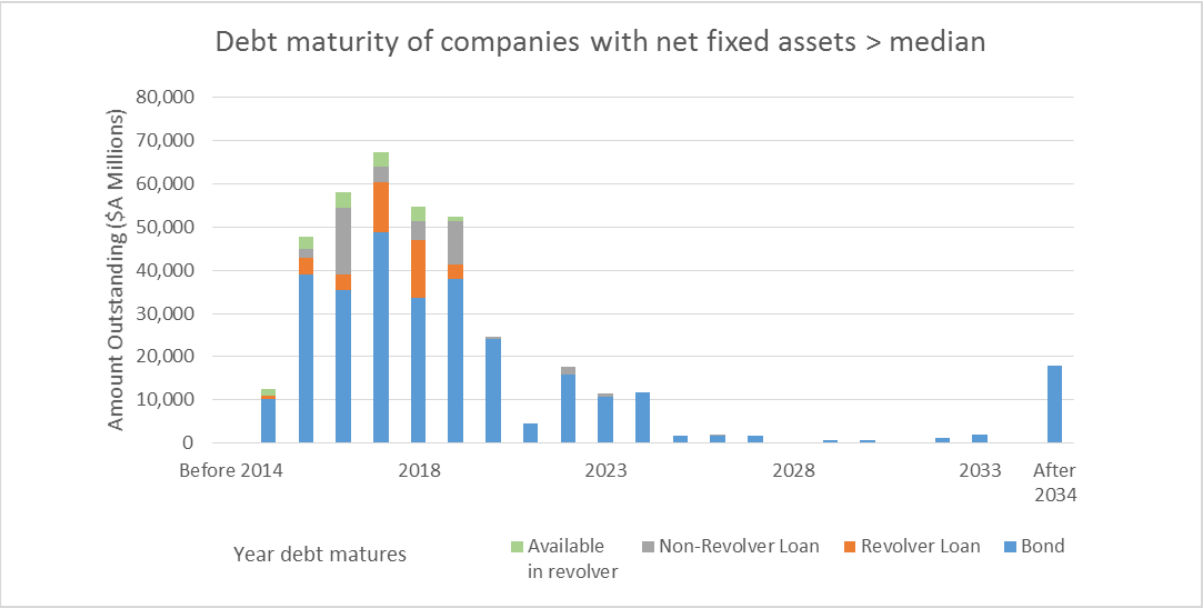


**Table 58: Average time to maturity for debt issued by companies with net fixed assets above the median**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1296 | 126 | 94 | 1516 |
| Amount Outstanding ($A Mn) | 300,046.73 | 36,926.65 | 39,603.97 | 376,577.35 |
| Weighted average time to maturity | 5.84 | 2.95 | 3.22 | 5.28 |
| Simple average time to maturity | 7.51 | 2.56 | 2.18 | 6.86 |

## 10.3 Debt maturity and debt-to-equity ratios

155. Similar to Section 9.3, the sample is subdivided into two, with one subsample containing the debts with associated parent companies having debt-to-equity ratios up to and including the median (368.4%), and the second containing debts with associated parent companies having debt-to-equity ratios above the median. The weighted average and simple average time to maturity for both groups are shown below in Table 59.

156. The weighted average and simple average time to maturity for the subsample with debt-to-equity ratios up to and including the median are 5.02 years and 4.93 years respectively, while the corresponding averages for the subsample with debt-to-equity ratios above the median are 3.70 years and 6.61 years respectively. Sections 10.3.1 and 10.3.2 show charts containing the year of debt issuance and year of debt maturity for both subsamples. The sections also show the average debt terms for all three types of debt in both subsamples.

157. We note that Figure 80 and Figure 82Figure 78 do not accurately show the amount of debt issued in 2005, 2006, and 2011 because Bloomberg does not have any historical data on debt-to-equity ratios for those years, as pointed out in Section 3.2.6.

**Table 59: Average time to maturity for different debt-to-equity ratios**

| Debt-to-equity ratio | Weighted average time to maturity | Simple average time to maturity |
|---|---|---|
| ≤ Median (368.4%) | 5.02 | 4.93 |
| > Median (368.4%) | 3.70 | 6.61 |

### 10.3.1 Debt-to-equity ratio up to and including the median

**Figure 80: Year of debt issuance for debts issued by companies with debt-to-equity ratio up to and including the median**

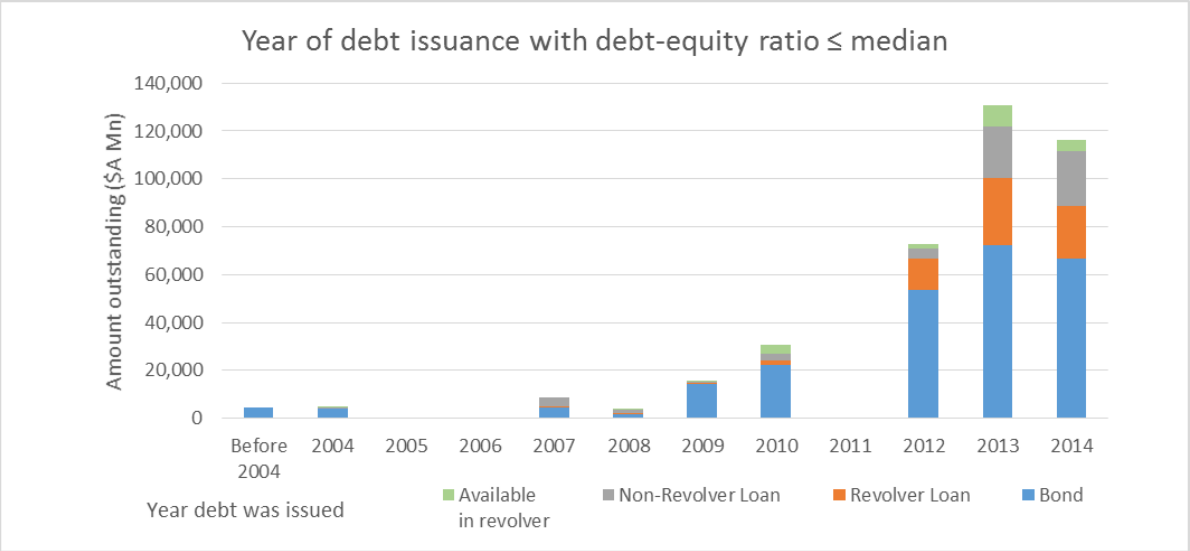



**Figure 81: Time to maturity for debts issued by companies with debt-to-equity ratio up to and including the median**

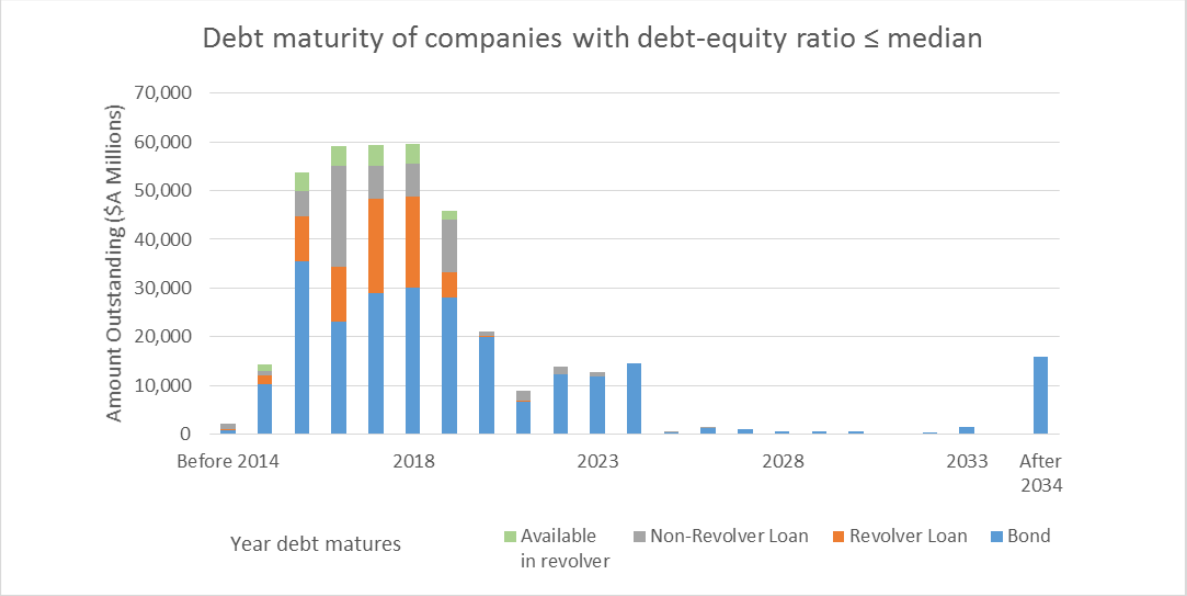


**Table 60: Average time to maturity for debt issued by companies with debt-to-equity ratio up to and including the median**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 972 | 396 | 218 | 1586 |
| Amount Outstanding ($A Mn) | 244,549.05 | 66,539.78 | 58,553.83 | 369,642.66 |
| Weighted average time to maturity | 6.14 | 2.70 | 2.94 | 5.02 |
| Simple average time to maturity | 6.46 | 2.31 | 1.32 | 4.93 |

### 10.3.2 Debt-to-equity ratio above the median

**Figure 82: Year of debt issuance for debts issued by companies with debt-to-equity ratio above the median**

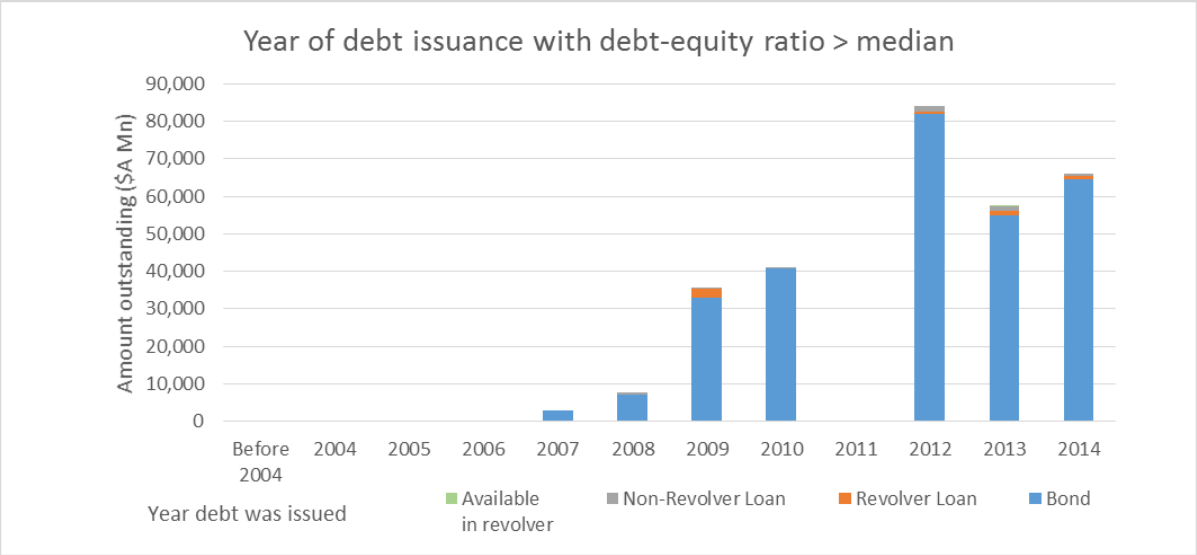


**Figure 83: Time to maturity for debts issued by companies with debt-to-equity ratio above the median**

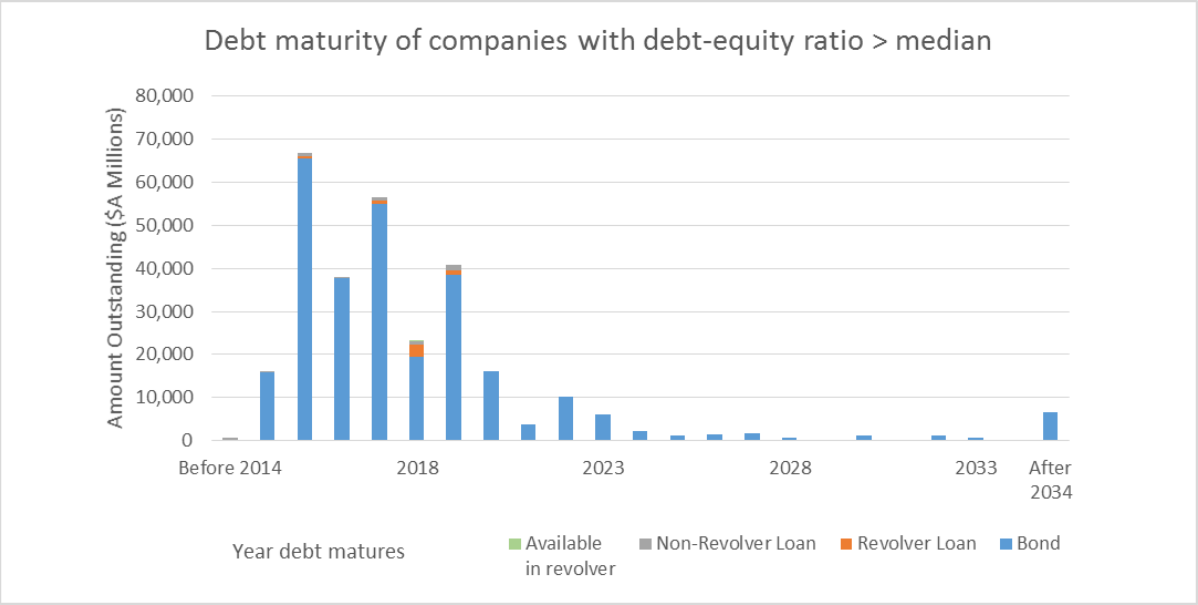



**Table 61: Average time to maturity for debt issued by companies with debt-to-equity ratio above the median**

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1401 | 16 | 25 | 1442 |
| Amount Outstanding ($A Mn) | 285,714.81 | 4,871.73 | 4,842.28 | 295,428.82 |
| Weighted average time to maturity | 3.73 | 3.44 | 1.79 | 3.70 |
| Simple average time to maturity | 6.72 | 2.20 | 3.11 | 6.61 |

## 10.4 Debt maturity and credit ratings

158. Similar to the approach taken in Section 9.4 for term of debt at issuance, the debts in the sample are subdivided according to "broad" credit ratings, as measured by the S&P Long Term Local Currency Issuer Credit Rating. The weighted average debt term and simple average debt term for each broad crediting rating are shown below in Table 62.

159. Debts with broad BBB credit rating have the highest weighted average time to maturity at 5.32 years, while debts with broad AA credit rating have the highest simple average time to maturity at 7.34 years. Broad B rated debts have the lowest weighted average and simple average time to maturity, at 2.66 and 2.67 years respectively. These observations mirror those made in Section 9.4 concerning the term of debt at issuance. We also observe that broad BB and B rated debts appear to have averages that are considerably lower than the higher-rated debts. Sections 10.4.1 to 10.4.6 show charts containing the year of debt issuance and year of debt

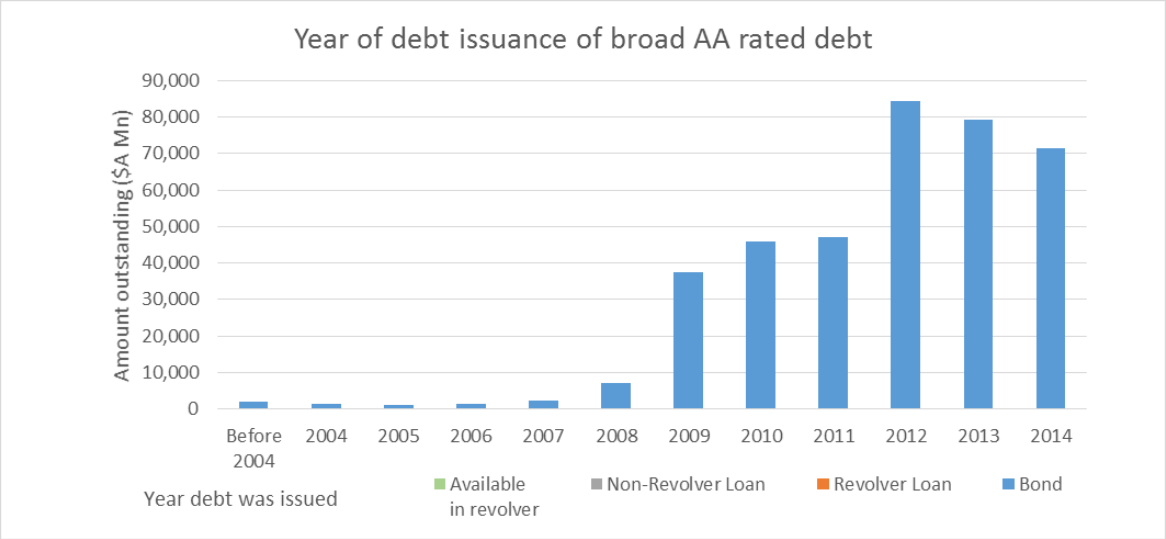
maturity for the various broad credit ratings. The sections also show the average debt terms for all three types of debt in the broad credit rating subsamples.

**Table 62: Average time to maturity for different broad credit ratings**

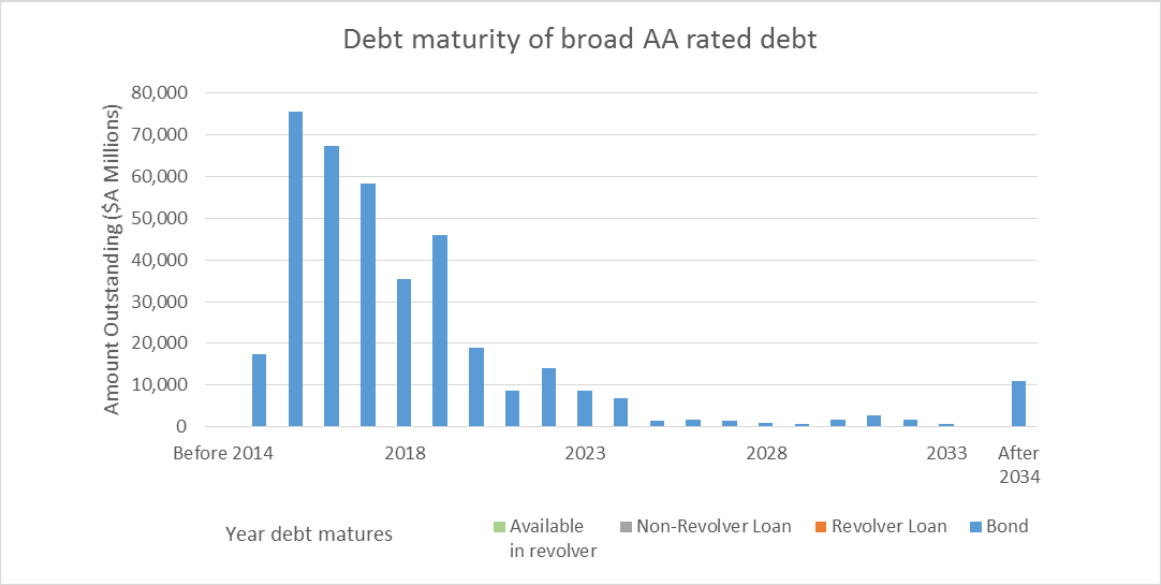
| Broad credit rating | Weighted average time to maturity | Simple average time to maturity |
|---|---|---|
| AA | 4.11 | 7.34 |
| A | 4.33 | 3.85 |
| BBB | 5.32 | 4.62 |
| BB | 3.45 | 3.06 |
| B | 2.66 | 2.67 |
| No credit rating | 5.19 | 3.70 |

### 10.4.1 Debt maturity of broad AA rated debt

**Figure 84: Year of debt issuance for debts issued by companies with broad AA credit ratings**



## Figure 85: Year of debt maturity for debts issued by companies with broad AA credit ratings




## Table 63: Average time to maturity for debt issued by companies with broad AA credit ratings

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2084 | 0 | 0 | 2084 |
| Amount Outstanding ($A Mn) | 380,761.98 | 0.00 | 0.00 | 380,761.98 |
| Weighted average time to maturity | 4.11 | N/A | N/A | 4.11 |
| Simple average time to maturity | 7.32 | N/A | N/A | 7.34 |

### 10.4.2 Debt maturity of broad A rated debt

**Figure 86: Year of debt issuance for debts issued by companies with broad A credit ratings**

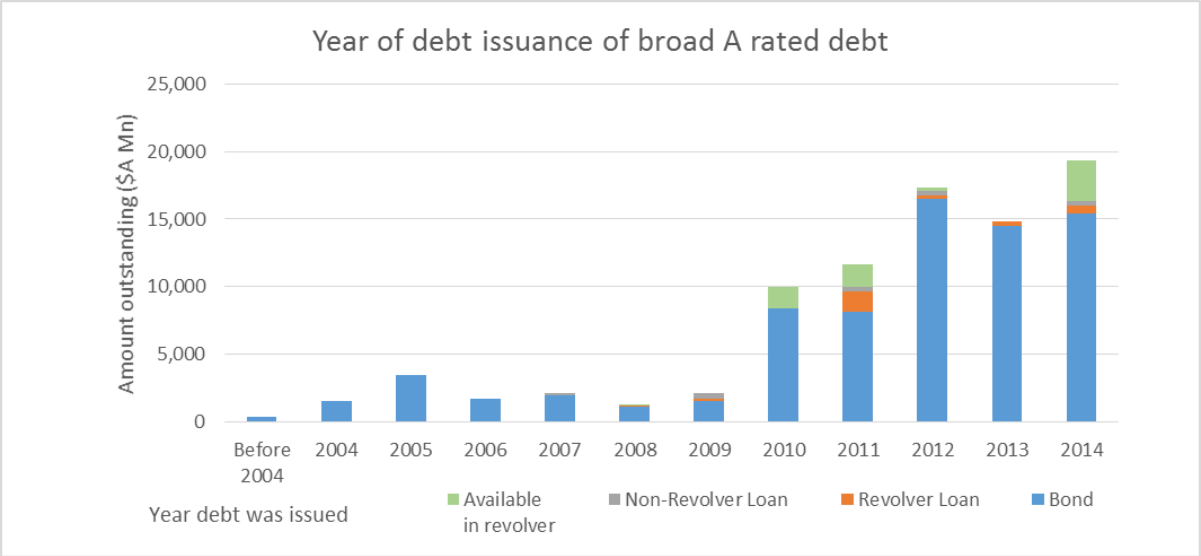



**Figure 87: Year of debt maturity for debts issued by companies with broad A credit ratings**

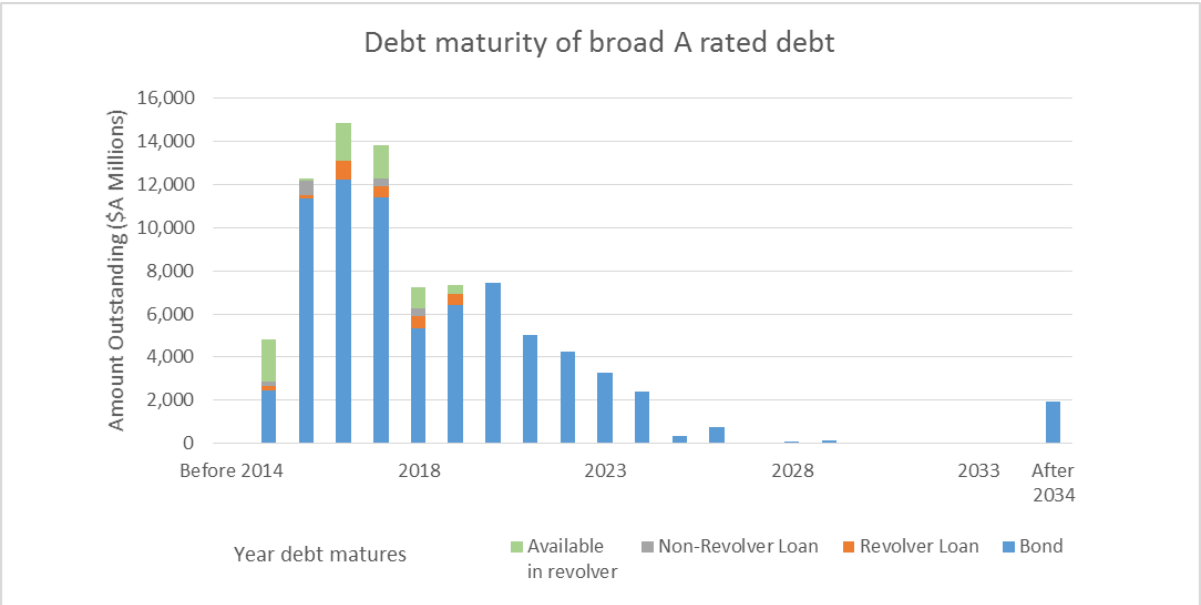
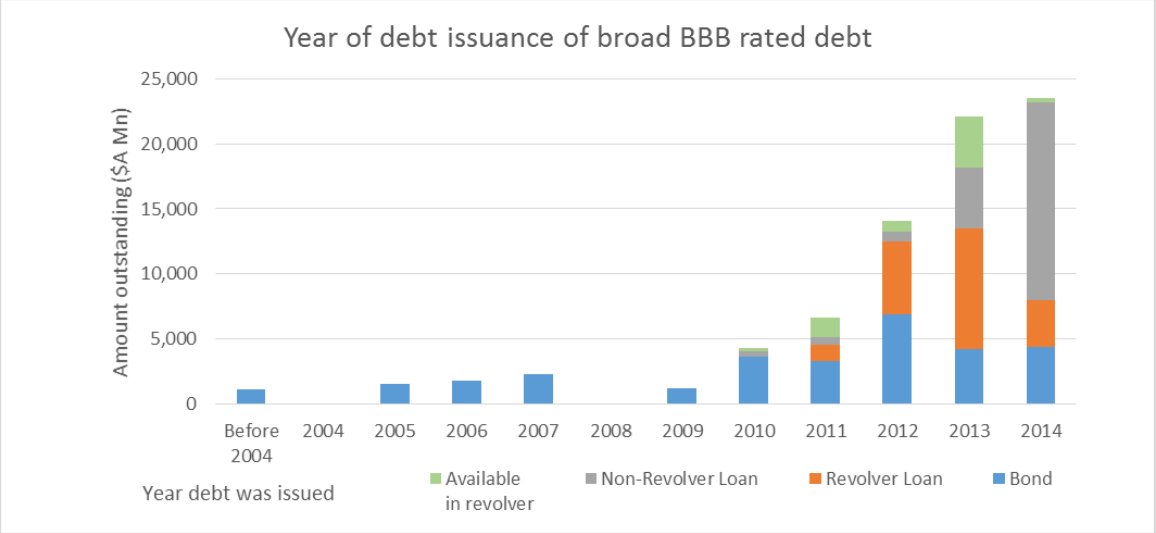


**Table 64: Average time to maturity for debt issued by companies with broad A credit ratings**

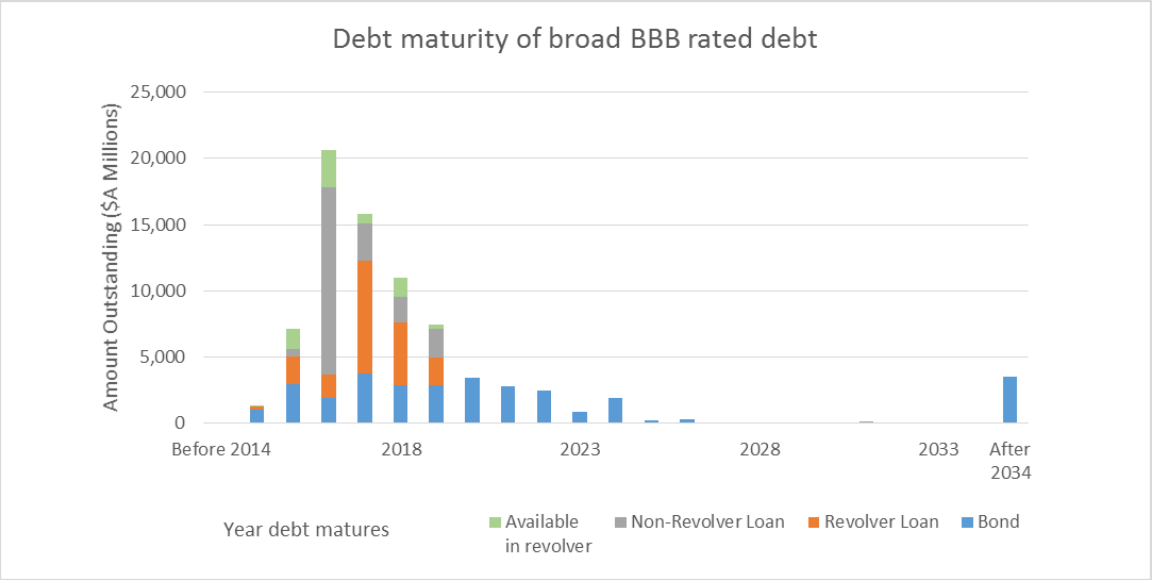
| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 336 | 32 | 8 | 376 |
| Amount Outstanding ($A Mn) | 74,849.68 | 2,880.50 | 1,588.97 | 79,319.15 |
| Weighted average time to maturity | 4.45 | 2.71 | 1.66 | 4.33 |
| Simple average time to maturity | 4.02 | 2.30 | 0.42 | 3.85 |

### 10.4.3 Debt maturity of broad BBB rated debt

**Figure 88: Year of debt issuance for debts issued by companies with broad BBB credit ratings**



## Figure 89: Year of debt maturity for debts issued by companies with broad BBB credit ratings




## Table 65: Average time to maturity for debt issued by companies with broad BBB credit ratings

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 121 | 68 | 33 | 222 |
| Amount Outstanding ($A Mn) | 30,698.95 | 19,551.13 | 21,676.64 | 71,926.72 |
| Weighted average time to maturity | 9.02 | 2.93 | 2.23 | 5.32 |
| Simple average time to maturity | 6.25 | 2.55 | 1.40 | 4.62 |

### 10.4.4 Debt maturity of broad BB rated debt

**Figure 90: Year of debt issuance for debts issued by companies with broad BB credit ratings**

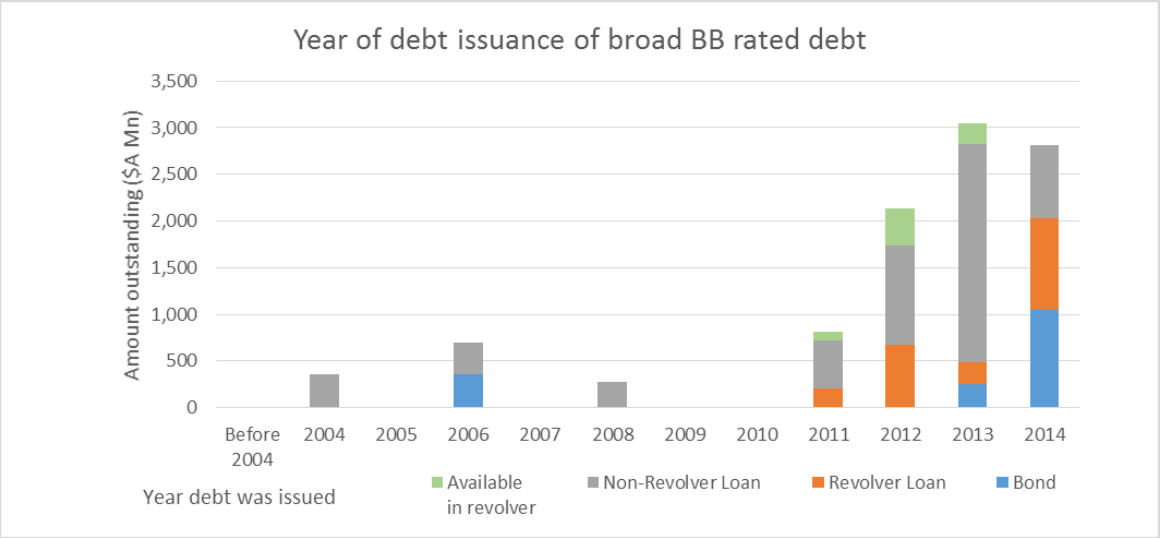
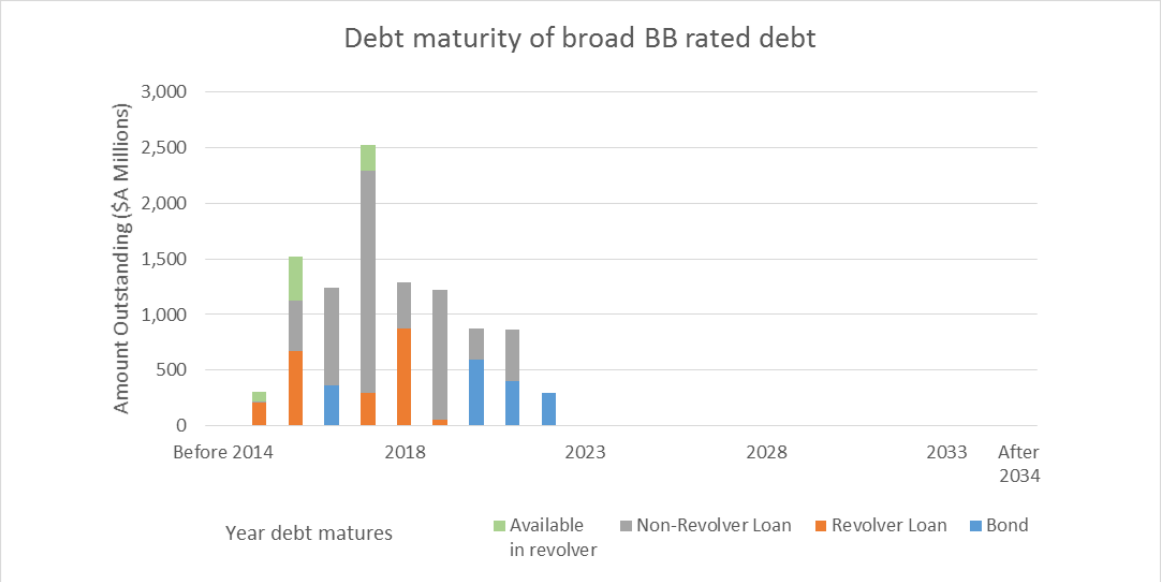



**Figure 91: Year of debt maturity for debts issued by companies with broad BB credit ratings**

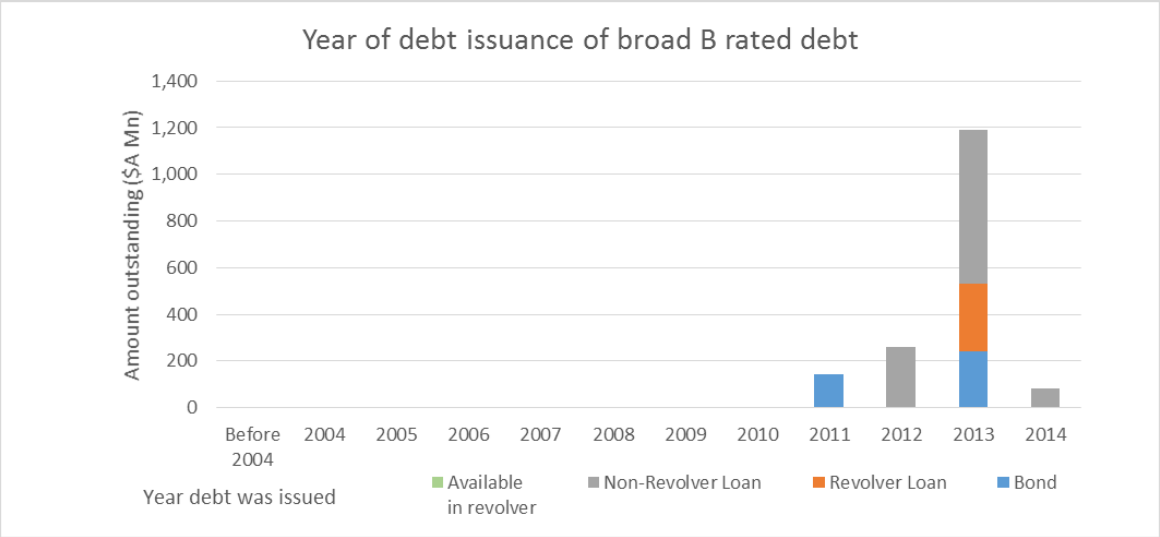


## Table 66: Average time to maturity for debt issued by companies with broad BB credit ratings

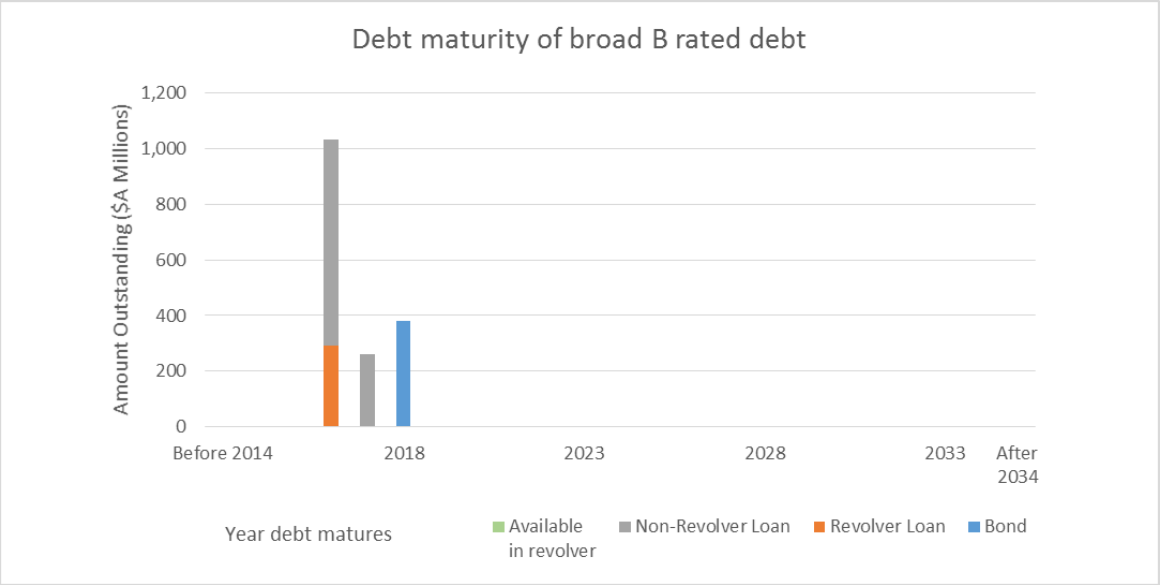
| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 5 | 15 | 14 | 34 |
| Amount Outstanding ($A Mn) | 1,657.51 | 2,100.55 | 5,667.47 | 9,425.53 |
| Weighted average time to maturity | 5.30 | 2.23 | 3.36 | 3.45 |
| Simple average time to maturity | 5.36 | 2.06 | 3.08 | 3.06 |

### 10.4.5 Debt maturity of broad B rated debt

## Figure 92: Year of debt issuance for debts issued by companies with broad B credit ratings



## Figure 93: Year of debt maturity for debts issued by companies with broad B credit ratings




## Table 67: Average time to maturity for debt issued by companies with broad B credit ratings

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 2 | 4 | 8 |
| Amount Outstanding ($A Mn) | 380.81 | 290.00 | 1,005.36 | 1,676.18 |
| Weighted average time to maturity | 3.58 | 2.20 | 2.44 | 2.66 |
| Simple average time to maturity | 3.61 | 2.20 | 4.87 | 2.67 |

### 10.4.6 Debt maturity of debt with no credit rating

**Figure 94: Year of debt issuance for debts issued by companies with no credit rating**

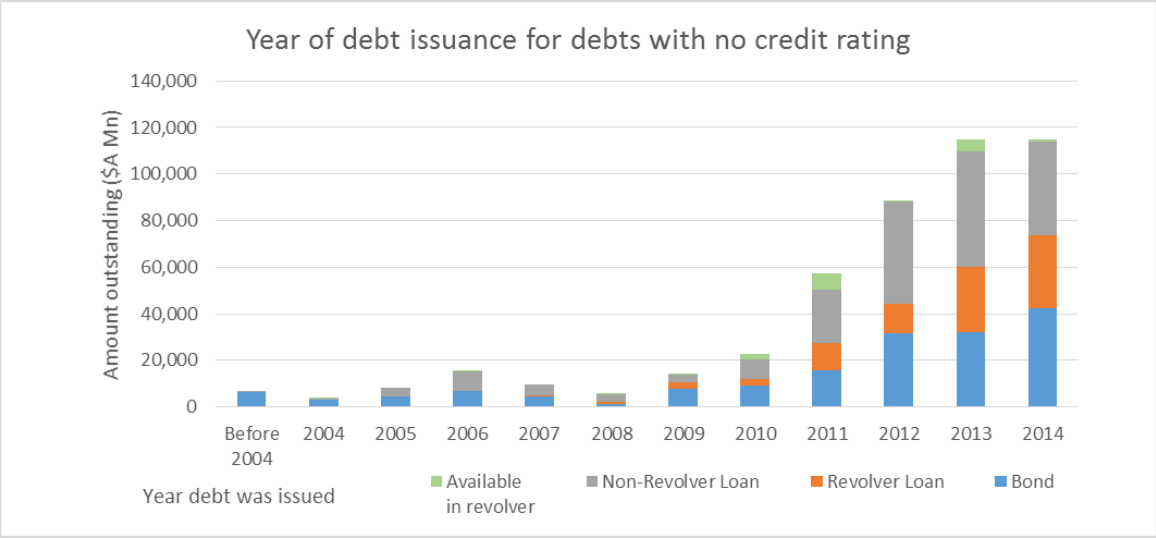
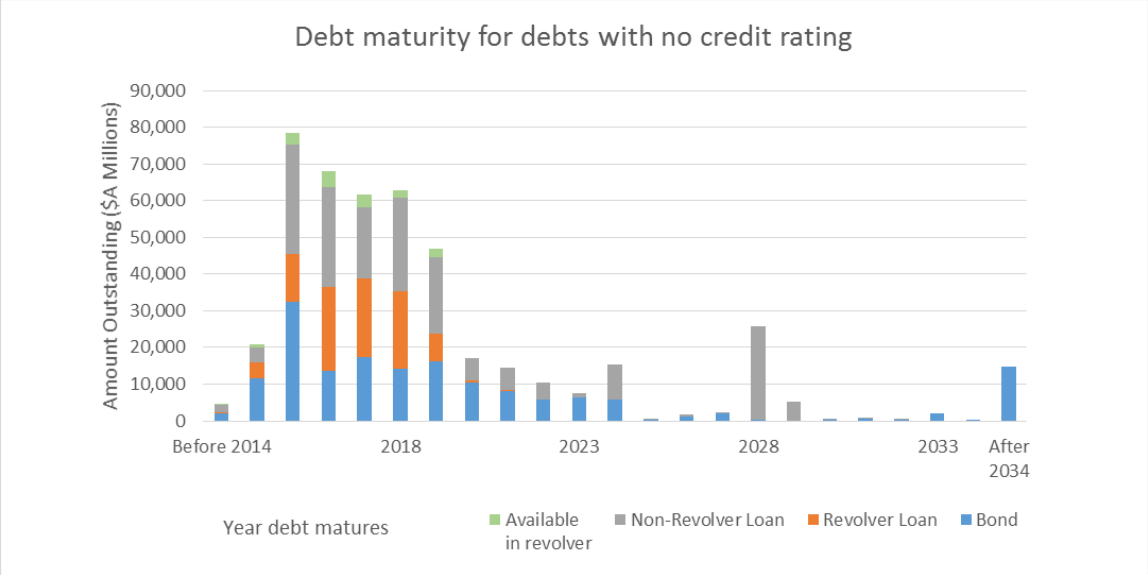



**Figure 95: Year of debt maturity for debts issued by companies with no credit ratings**



## Table 68: Average time to maturity for debt issued by companies with no credit rating

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 623 | 628 | 722 | 1973 |
| Amount Outstanding ($A Mn) | 165,729.53 | 91,193.65 | 188,458.12 | 445,381.30 |
| Weighted average time to maturity | 6.70 | 2.47 | 5.18 | 5.19 |
| Simple average time to maturity | 5.72 | 2.13 | 3.48 | 3.70 |

# 11 Quantifying debt staggering

160. Section 4.6 showed the debt term at issuance and year of debt maturity charts for Qantas Airways Ltd and Sun Group Finance Pty Ltd – two examples of parent companies in our sample that practise debt staggering. The corresponding charts for all 82 companies that issued at least one credit-rated debt in our sample are in the Appendix. This section further develops the concept of debt staggering by introducing three statistical measures that quantify the extent of debt staggering used by a firm.

161. The debt maturity charts for the two example companies identified in Section 4.6 are reproduced below for convenience in Figure 96 and Figure 97.

**Figure 96: Year of debt maturity for Qantas Airways Ltd**

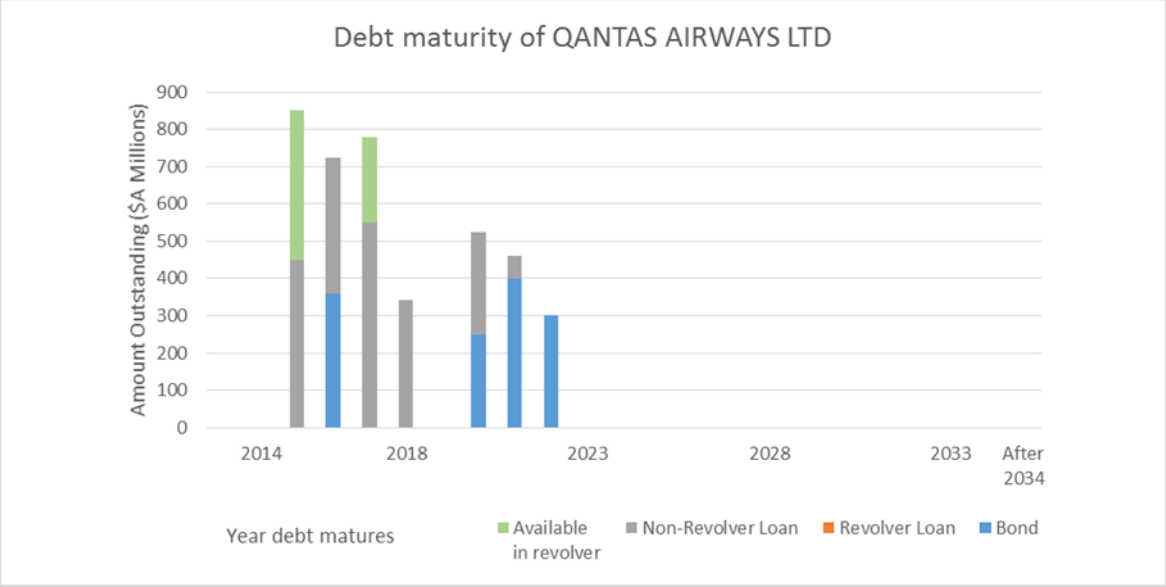
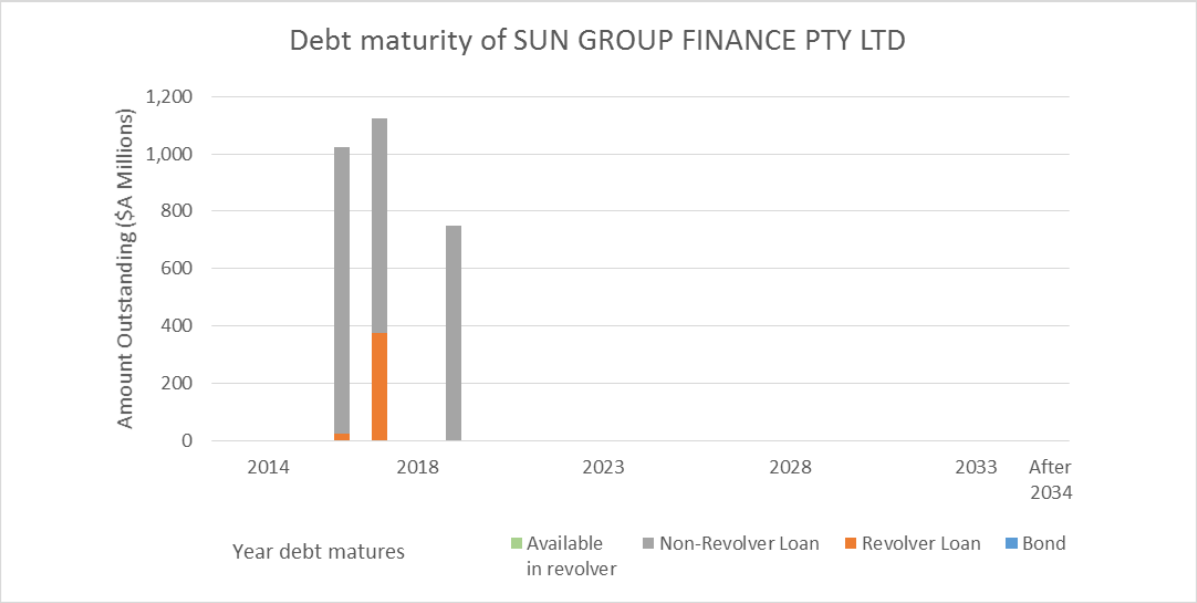


**Figure 97: Year of debt maturity for Sun Group Finance Pty Ltd**




162. Comparing the year of debt maturity charts in Figure 96 and Figure 97, it is easy to see that Qantas Airways Ltd utilised a greater level of debt staggering compared to Sun Group Finance Pty Ltd. First, the soonest due date for Qantas Airways' debts is in 2015, while the latest is in 2022, resulting in a gap of around 7 years. For Sun Group Finance Pty Ltd, the due year for its earliest debt is in 2016, while the latest due year is in 2019, for a difference of only 3 years. Secondly, a visual inspection of the two debt maturity charts strongly suggests that Qantas Airways' debts are more spread out than Sun Group Finance's.

163. The above two observations lay the foundations for the three statistical measures of debt staggering set out in Section 11.1.

## 11.1 Statistical measures of debt staggering

### 11.1.1 Measure 1: Range

164. The range is defined as the difference between the largest and smallest values in the sample. When applied to debt staggering, calculating the range involves determining the number of years between the debts with the longest and shortest time to maturity.

165. The main benefit of the range as a measure of debt staggering is its simplicity, which makes it a useful starting point as a measure of spread. However, this simplicity is also its major weakness, and it is generally considered to be a crude measurement for several reasons.

166. First, the range is highly affected by outliers, and a single extreme value can have a great effect on the estimated range. Secondly, the range statistic only takes the two observations at each end of the sample without taking into account any of the observations in between. As a result, the range statistic is unable to capture any differences in the distribution of the company's debt. Thirdly, the range statistic does not place different weights on different loan amounts, which means that a very small debt at one end of the sample will produce an excessively high range measurement even though that single small debt did not actually lead to substantial changes in debt staggering.

167. Some of the weaknesses of range as a measure of debt staggering, as identified above, are addressed by the next two measures set out below.

### 11.1.2 Measure 2: Weighted mean absolute deviation (WMAD)

168. Mean absolute deviation (MAD) is a commonly used statistical measure of the amount of spread in a sample. MAD is based on the concept of absolute deviations, whereby an observation's absolute deviation from the mean refers to its absolute distance from the mean of the entire sample.

169. If the sample contains observations that are far from the mean, it would indicate that the sample data is fairly spread out. The converse is true for samples with observations near the mean, which indicates that the sample has low spread. An intuitive measure of spread would thus be to obtain the mean of the absolute deviations (MAD) for all observations in the sample. Such a measure will account for the first two problems associated with range, as stated in Section 11.1.2.

170. MAD can be modified in order to address the third problem, which requires different weights to be placed on debts with larger amounts outstanding. Instead of obtaining the mean of the absolute deviations for all observations in the sample, the absolute deviations are weighted according to the amount of debt outstanding, which results in the weighted mean absolute deviation (WMAD) measure. With this modification, larger debts will have more influence on the measure and vice versa.

171. The WMAD of the debts issued by a parent company is interpreted as the average difference in time to maturity between an issued debt and the sample average time to maturity, weighted by the amount of debt outstanding.

172. The formal definitions of MAD and WMAD are shown in Equation 2 below:

**Equation 2: Mean Absolute Deviation (MAD) and Weighted Mean Absolute Deviation (WMAD)**

$$MAD = \frac{\sum_{i=1}^{n} |x_i - \bar{x}|}{n}, \quad WMAD = \frac{\sum_{i=1}^{n} w_i |x_i - \bar{x}_w|}{\sum_{i=1}^{n} w_i},$$

where $x_i$ is the time to maturity of debt $i$;

$\bar{x}$ is the mean time to maturity of all debts issued by the parent company;

$\bar{x}_w$ is the weighted average of all debts issued by the parent company;

$w_i$ is the amount outstanding for debt i; and

$n$ is the number of debts issued by the firm

173. A closely-related pair of alternatives to MAD and WMAD are the standard deviation and weighted standard deviation. These replace the absolute deviations in the formulae with squared deviations. Although standard deviation is a more popular measure of sample spread since it possesses desirable properties for statistical inferences, it does not have an intuitive interpretation and is also more influenced by extreme values. For these reasons, we do not present the results for weighted standard deviation, although we note that the WMAD results are intended to be used for making comparisons about the extent of debt staggering by different companies, and should not be used for statistical inferences or hypothesis testing.

174. The main weakness of WMAD is that it sometimes does not provide an accurate measure of debt staggering in terms of spreading debt amounts equally across time. For example, a firm that has two debts of equal size with maturities four years apart will return a higher WMAD than a firm with five equal debts that are consecutively one year apart, even though the latter case represents greater debt staggering. This is addressed below in the next measure of debt.

### 11.1.3 Measure 3: Sum of squared percentage debt

175. An approach similar to HHI can be used to measure debt staggering. As described in paragraph 97, HHI measures the competitiveness of an industry based on the sum of squared market share percentages of its firms. When there are many small firms in the industry with low market shares, HHI returns a small value approaching 1, which suggests that the industry is highly competitive. If the industry is a monopoly, HHI returns a value of 10,000.

176. Similarly, the relative individual sizes of a firm's debts can provide information on the extent of debt staggering utilised by the firm. A firm that splits its total debt amount to several small debts has a more staggered debt structure than one that only has a few large debts. Taking the sum of squared percentages of individual debts relative to the firm's total amount of debt outstanding thus provides a measure of how much staggering the firm has used.

177. The formula for sum of squared percentage debt (SSD) is shown in Equation 3:

**Equation 3: Sum of squared percentage debt**

$$SSD = \sum_{i=1}^{n} \left( \frac{Amount\ outstanding\ for\ debt_i}{Total\ debt\ outstanding\ for\ the\ firm} \times 100\% \right)$$

178. Similar to our approach in Section 5.2, we define firms with high degree of debt staggering as having SSD less than 2000, while firms with medium debt staggering have SSD between 2000 and 4000, and firms with SSD exceeding 4000 are regarded as having low debt staggering.

179. Unfortunately, SSD is also an imperfect measure of debt staggering, because it only accounts for staggering in terms of the relative amount of each separate debt without considering their corresponding time to maturity. For example, a firm that only has two debts of equal size with maturities one year apart will return the same SSD as two debts with maturities ten years apart. This problem extends to cases where two debts have the same maturity date, as SSD will treat both debts as separate debts even if they were to be issued on the same day as well.

180. As a result, SSD is only indicative of debt staggering in terms of a firm spreading its total outstanding debt across a large number of small debts, and does not provide any information regarding debt staggering across time.

## 11.2 Empirical evidence of debt staggering

### 11.2.1 Application to Qantas Airways Ltd and Sun Group Finance Pty Ltd.

181. The three measures of debt staggering were calculated for the two example companies identified in Sections 4.6.1 and 4.6.2. These are shown in Table 69.

182. As expected, all three measures identify Qantas Airways Ltd as having a more staggered debt structure. The range of Qantas Airways' debts is 7.09 years, which exceeds Sun Group Finance's range of 3.00 years. Qantas Airways' debts have a weighted mean absolute deviation of 2.18 years, which also exceeds Sun Group Finance's 0.95 years. Both measures suggest that Qantas Airways has a more staggered debt structure in terms of having their debts maturing at different times.

183. Furthermore, Qantas Airways' sum of squared percentage debt of 1,135.35 is smaller than Sun Group Finance's 2,694.71, indicating that the former's debt structure is also more staggered in terms of spreading its total outstanding debt more evenly across a larger number of debts.

## Table 69: Measures of debt staggering for Qantas Airways Ltd and Sun Group Finance Pty Ltd

| Parent company | Number | Weighted average debt term | Max time to maturity | Min time to maturity | Range | WMAD | SSD |
|---|---|---|---|---|---|---|---|
| QANTAS AIRWAYS LTD | 12 | 3.66 | 7.58 | 0.49 | 7.09 | 2.18 | 1,135.35 |
| SUN GROUP FINANCE PTY LTD | 5 | 2.86 | 4.70 | 1.70 | 3.00 | 0.95 | 2694.71 |

### 11.2.2 Debt staggering in the full sample

184. Table 70 shows the results for the three measures of debt staggering when applied to the full sample of 4697 debts. The sample range is 72.87 years, while the WMAD and SSD are 3.68 and 10.13 respectively.

185. The minimum time to maturity is listed at -12.96, which arises from overdue debts that Bloomberg continues to list as active after the maturity date has passed. This particular debt was issued by HIH Insurance Ltd on 23 December 1996 with a maturity date on 2 November 2001, and continues to remain active since the company is currently undergoing liquidation.

186. When the 21 overdue debts in the sample are excluded, the minimum time to maturity is 0.00 years, arising from debts with the same maturity date as the time of search (20 October 2014). The resulting range for the sample with overdue debts excluded would thus be 59.91 years.

## Table 70: Measures of debt staggering for the full sample of debts

| | Number | Weighted average debt term | Max time to maturity | Min time to maturity | Range | WMAD | SSD |
|---|---|---|---|---|---|---|---|
| Full sample | 4697 | 4.69 | 59.91 | -12.96 | 72.87 | 3.68 | 10.13 |

187. The distributions of the three measures of debt staggering across the 619 parent companies in our sample are shown in Section 11.2.2.1 to Section 11.2.2.3.

#### *11.2.2.1 Range statistic*

188. Companies with a range statistic of zero are identified as having unstaggered debts. Of the 619 parent companies in our sample, 323 do not stagger their debts, while the remaining 296 do. This comparison can be seen in Figure 98.

189. Figure 99 shows a histogram of the range statistics for the 296 parent companies with staggered debts, which indicates that 70% of all parent companies that stagger their debt do so with a maximum span of up to 5 years between their the debts with the longest and shortest times to maturity.

**Figure 98: Staggered and unstaggered parent companies measured using the range statistic**

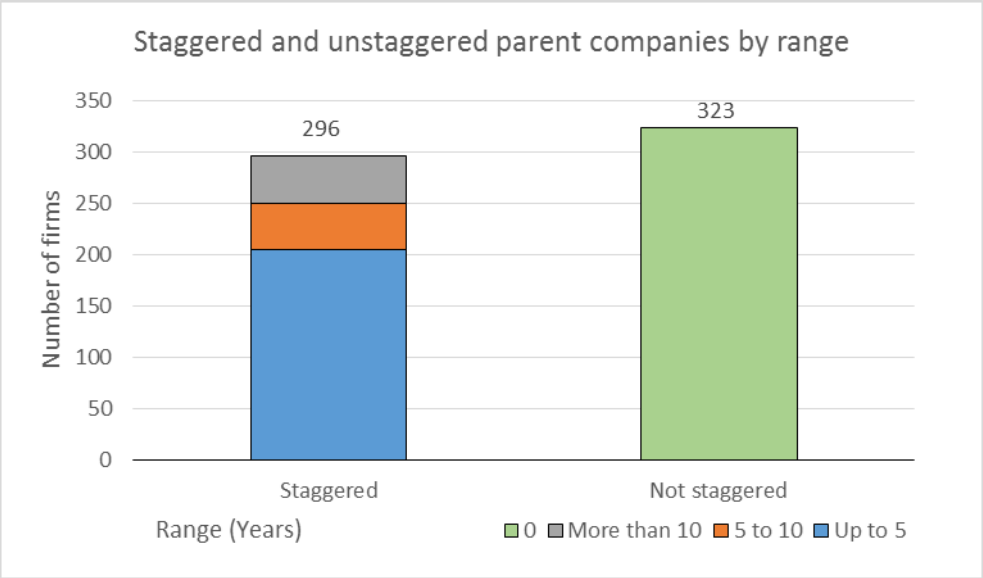
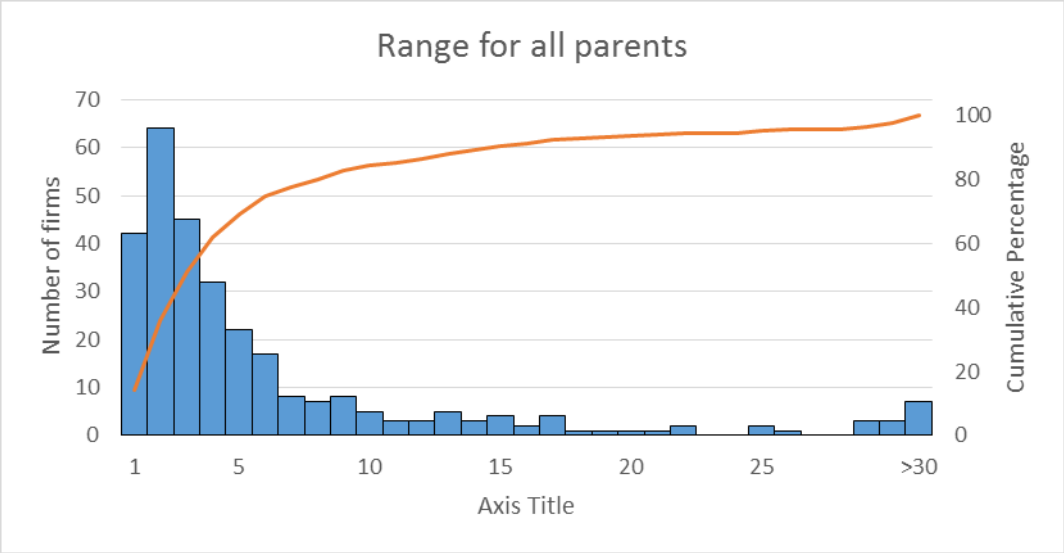



**Figure 99: Distribution of the range statistic for parent companies with staggered debt**




#### *11.2.2.2 Weighted mean absolute deviation*

190. Companies with zero WMAD are identified as ones that do not stagger their debts. Within our sample, WMAD also identifies 323 parent companies as not having staggered their debt and 296 as having done so. This comparison is shown below in Figure 100.

191. Figure 101 shows a histogram of the WMAD for the 296 parent companies that stagger their debt. It shows that most of these parent companies stagger their debt in such a way that the absolute deviation from the mean time to maturity for an average debt is less than 1.5 years in 70% of all parent companies after taking into account the amount of debt outstanding.

**Figure 100: Staggered and unstaggered parent companies measured using the Weighted Mean Absolute Deviation statistic**

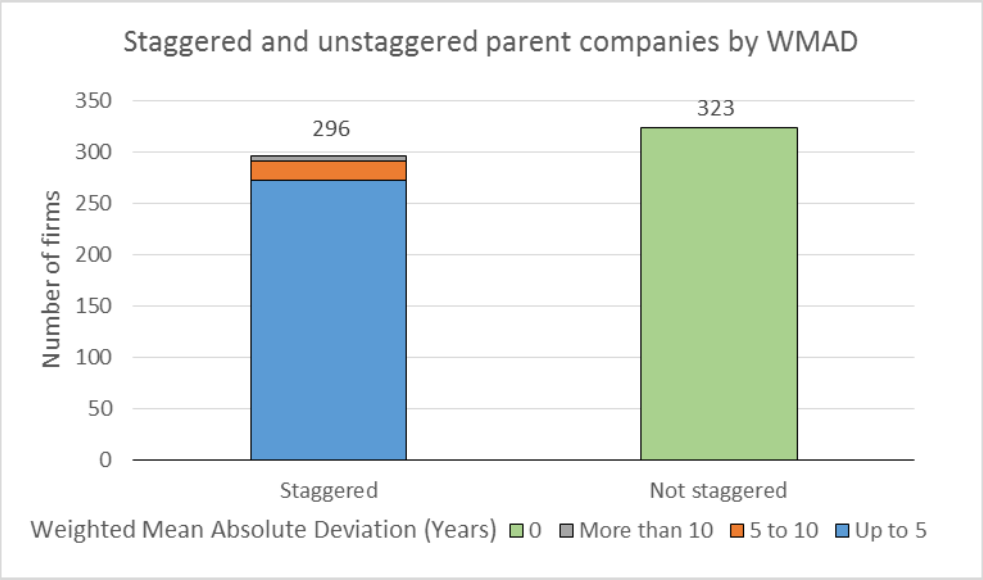
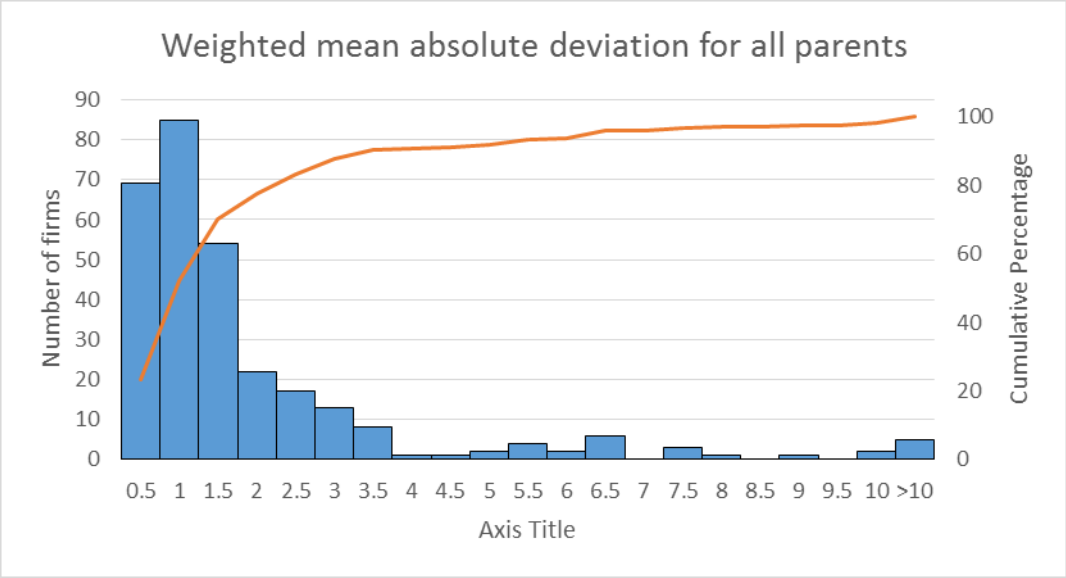



**Figure 101: Distribution of the Weighted Mean Absolute Deviation statistic for parent companies with staggered debt**



#### *11.2.2.3 Sum of squared percentage debt*

192. Companies that do not stagger their debts are identified as having a single debt that represents 100% of their debts outstanding, which generates an SSD of 10,000. Within our sample, SSD identifies 195 parent companies as not having staggered their debt, and 398 parent companies as having done so. This comparison can be seen in Figure 102.

193. SSD identifies less parent companies with unstaggered debts compared to the previous two measures because, as pointed out in Section 11.1.3, SSD only measures debt staggering in terms of firms spreading their total outstanding debts across a large number of debts, and does not differentiate between debts with different times to maturity. The 218 additional firms that the range statistic and WMAD identified as having unstaggered debt had issued multiple debts maturing on the same date, which is not identified by SSD.

194. Of the 398 parent companies identified as having staggered debt, 70 had high debt staggering, 131 had medium debt staggering, and 197 had low debt staggering. This is shown in Figure 103.

**Figure 102: Staggered and unstaggered parent companies measured using the Sum of Squared Percentage Debt statistic**

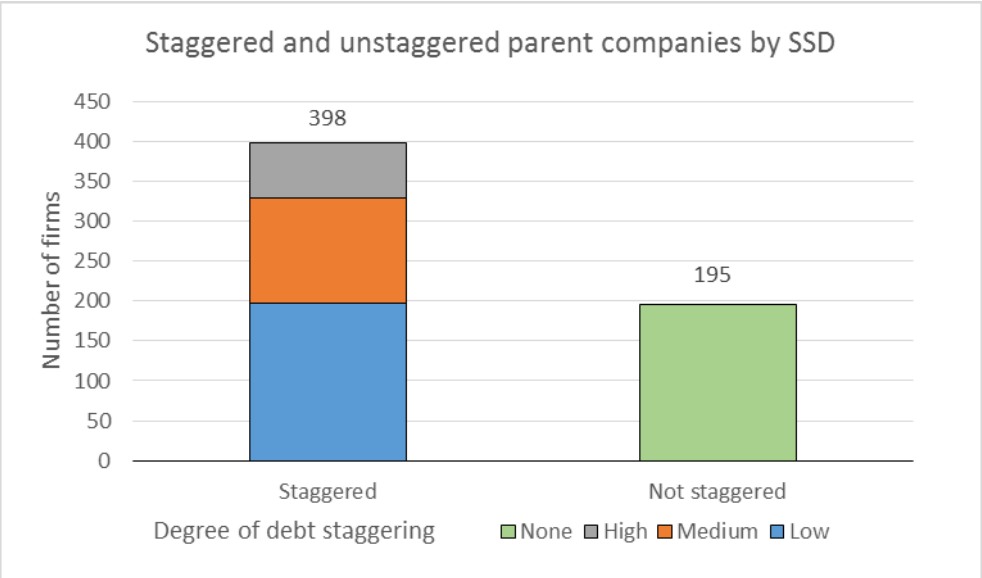
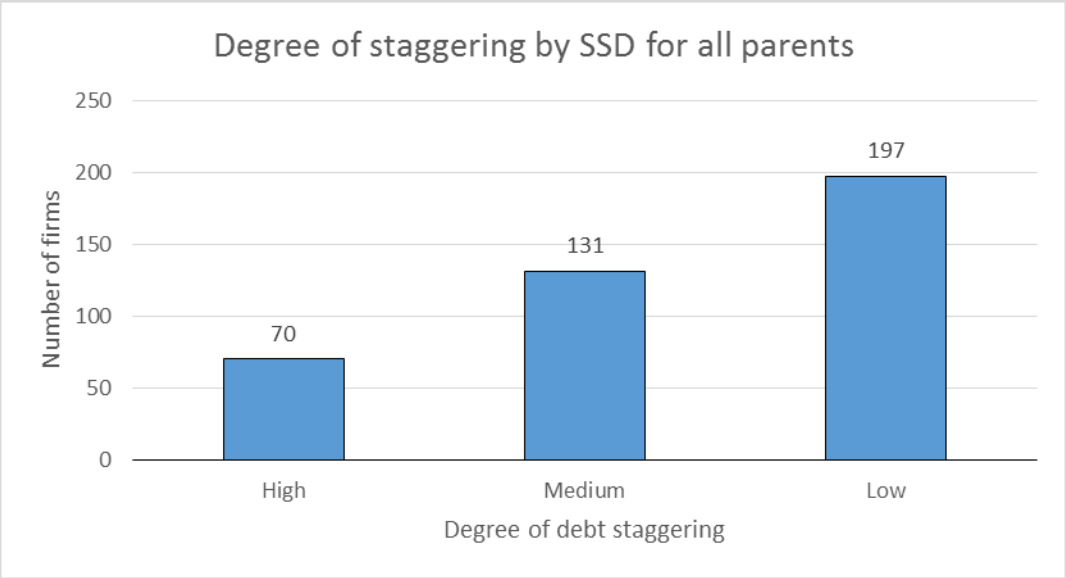


**Figure 103: Degree of debt staggering by parent companies as measured by the Sum of Squared Percentage Debt statistic**




### 11.2.3 Debt staggering for parent companies with credit ratings

195. Table 71 shows the results for the three measures of debt staggering when applied to the 2724 debts issued by the 82 credit-rated parent companies in the Appendix.

196. The sample range for this subsample is 57.95 years, while the WMAD and SSD are 3.21 and 19.40 respectively.

**Table 71: Measures of debt staggering for the 82 parent companies with credit ratings**

| | Number | Weighted average debt term | Max time to maturity | Min time to maturity | Range | WMAD | SSD |
|---|---|---|---|---|---|---|---|
| Credit-rated debts only | 2724 | 4.29 | 57.95 | 0.00 | 57.95 | 3.21 | 19.40 |

197. The distributions of the three measures of debt staggering for the 82 parent companies in our subsample are shown in Section 11.2.2.1 to Section 11.2.2.3.

#### *11.2.3.1 Range statistic*

198. Of the 82 parent companies in our sample, 9 do not stagger their debts, while the remaining 73 do. This comparison can be seen in Figure 104.

199. Figure 105 shows a histogram of the range statistics for the 73 parent companies in our subsample that stagger their debt. Comparing Figure 105 with the full-sample chart in Figure 99, it is apparent that the parent companies with credit ratings

practise debt staggering to a greater extent. For example, in Figure 99, 70% of the companies in the full sample have a range of 5 years or less. In Figure 105, only 37% of the companies with credit ratings have a range of 5 years or less.

**Figure 104: Staggered and unstaggered parent companies with credit ratings, measured using the range statistic**

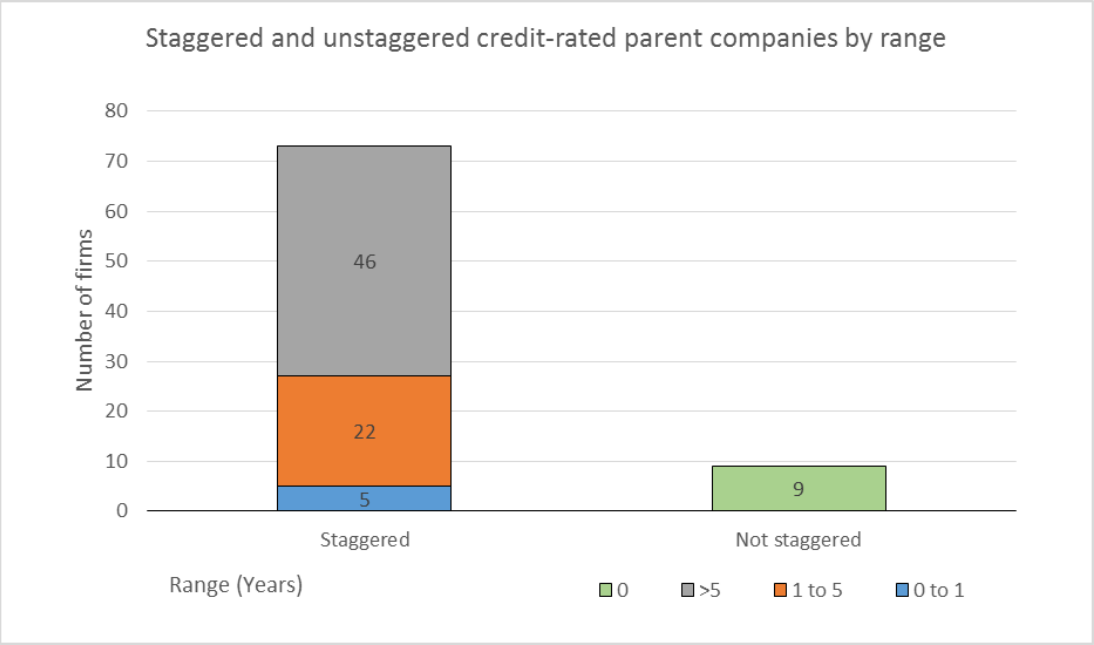
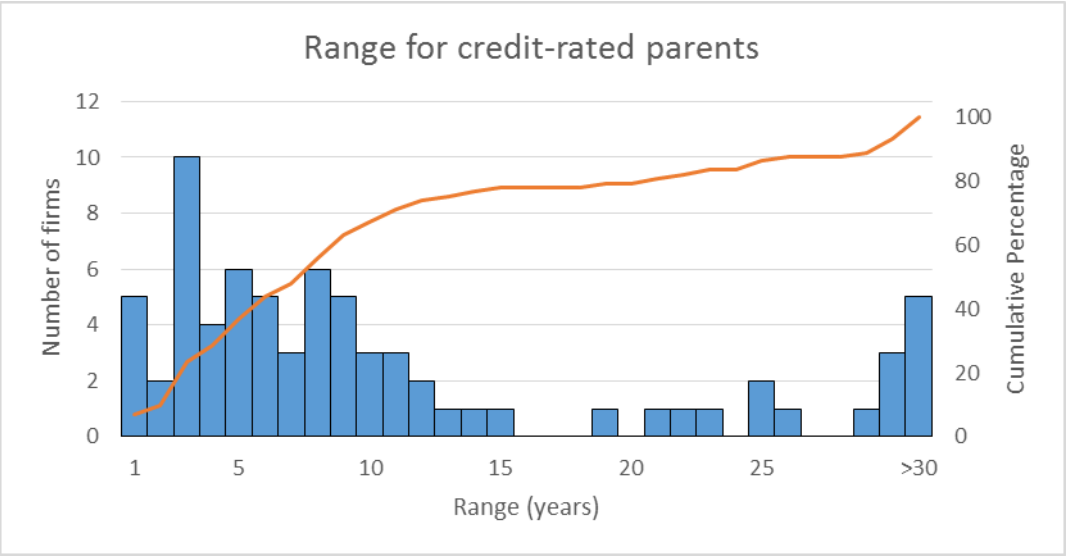



**Figure 105: Distribution of the range statistic for parent companies with credit ratings and staggered debt**

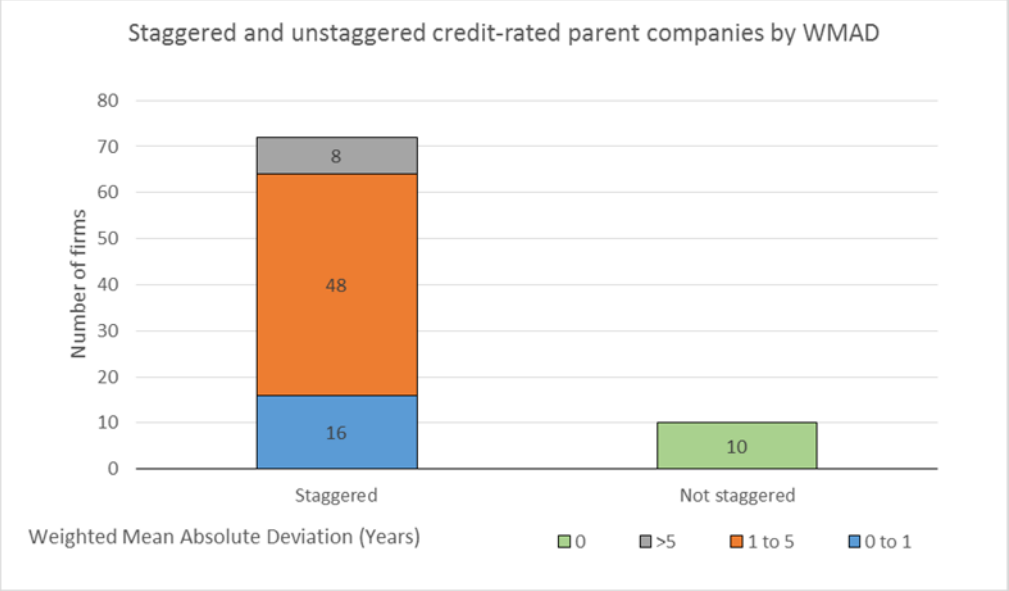


#### *11.2.3.2 Weighted mean absolute deviation*

200. Of the 82 parent companies with credit ratings, 10 are identified by WMAD as not having staggered their debt while the remaining 72 are identified as having done so. This comparison is shown below in Figure 106.[12]

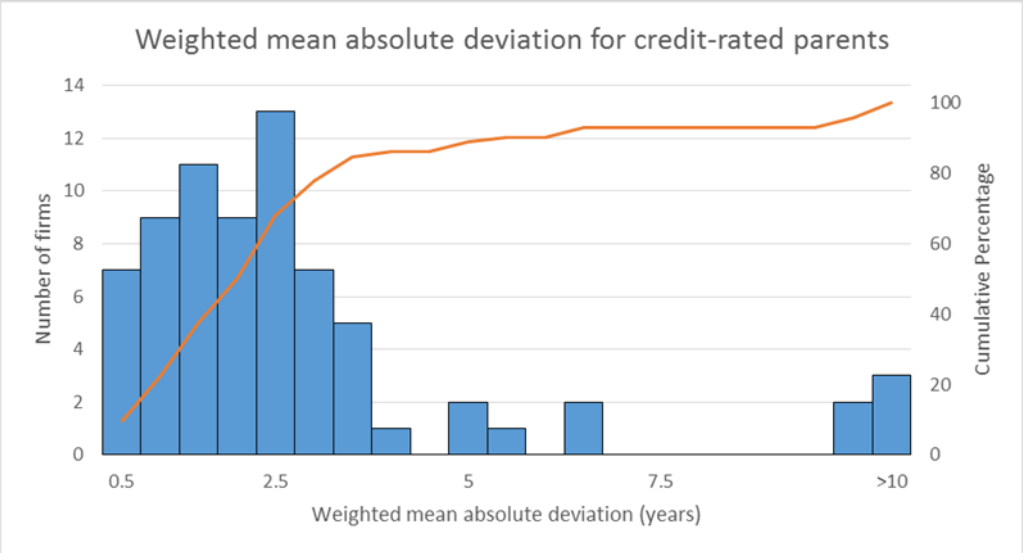
201. Figure 107 shows a histogram of the WMAD for the 62 parent companies in our subsample that stagger their debt. Comparing Figure 107 with the full-sample chart in Figure 101, it is apparent that the parent companies with credit ratings practise debt staggering to a greater extent. For example, in Figure 101, 70% of companies in the full sample have a WMAD of 1.5 years or less. In Figure 107, the percentage of companies with WMAD of 1.5 years or less is only 40%.

**Figure 106: Staggered and unstaggered parent companies with credit ratings, measured using the Weighted Mean Absolute Deviation statistic**




[12] WMAD (and SSD) identify one additional company, Boral Ltd, as having unstaggered debt. This arises because Boral Ltd has two debts – a bond with A$ 157.78 m outstanding, and a revolver loan of amount A$ 500 m, but $0 outstanding. The range statistic takes the revolver loan into account, but the WMAD and SSD both assign no weight to it, which leads these two measures to conclude that no debt staggering occurred in this case.

**Figure 107: Distribution of the Weighted Mean Absolute Deviation statistic for parent companies with credit ratings and staggered debt**




#### *11.2.3.3 Sum of squared percentage deviation*

202. Within the subsample of 82 parent companies with credit ratings, SSD identifies 10 parent companies as not having staggered their debt, and 72 parent companies as having done so. This comparison can be seen in Figure 108.

203. Of the 72 parent companies in the subsample identified as having staggered debt, 31 had high debt staggering, 27 had medium debt staggering, and 14 had low debt staggering. This is shown in Figure 109.

204. Comparing Figure 108 and Figure 109 with the full-sample charts in Figure 102 and Figure 103, it can be seen that SSD also identifies the subsample of parent companies with credit ratings as having more staggered debts than the full sample. In particular, the subsample with credit ratings have a higher proportion of companies with staggered debts. Of these, the proportion of companies with high and medium debt staggering in the subsample are both higher than their counterparts in the full sample.

**Figure 108: Staggered and unstaggered parent companies with credit ratings, measured using the Sum of Squared Percentage Deviation statistic**

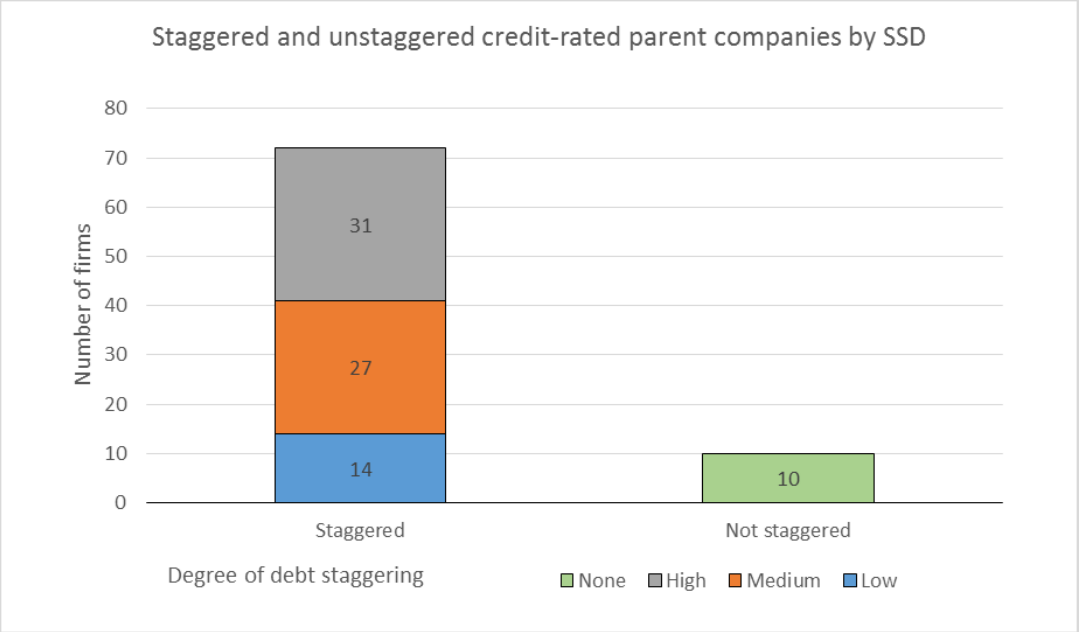
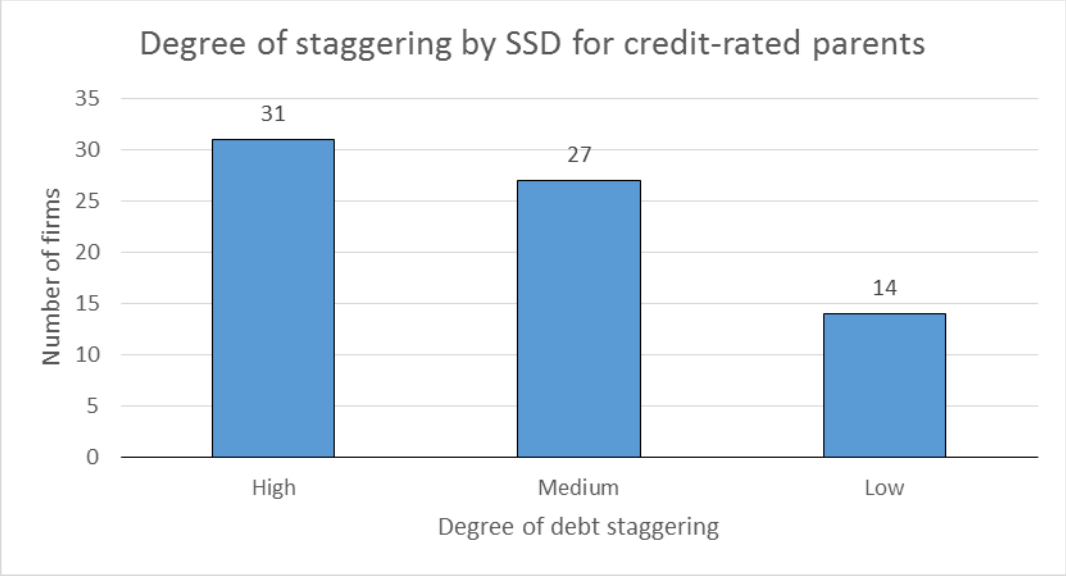


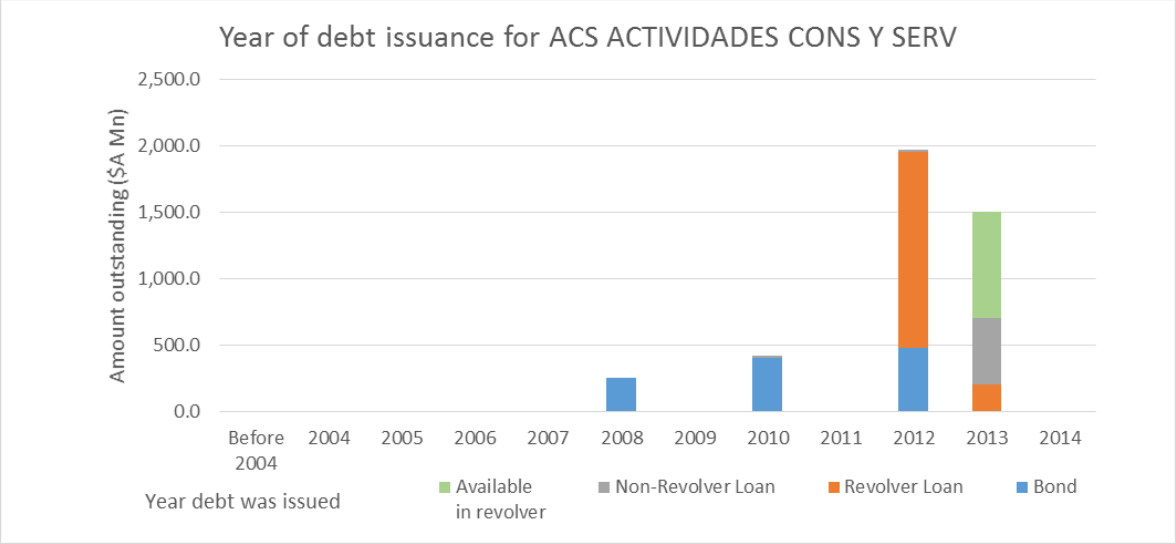

**Figure 109: Degree of debt staggering by parent companies with credit ratings, as measured by the Sum of Squared Percentage Debt statistic**

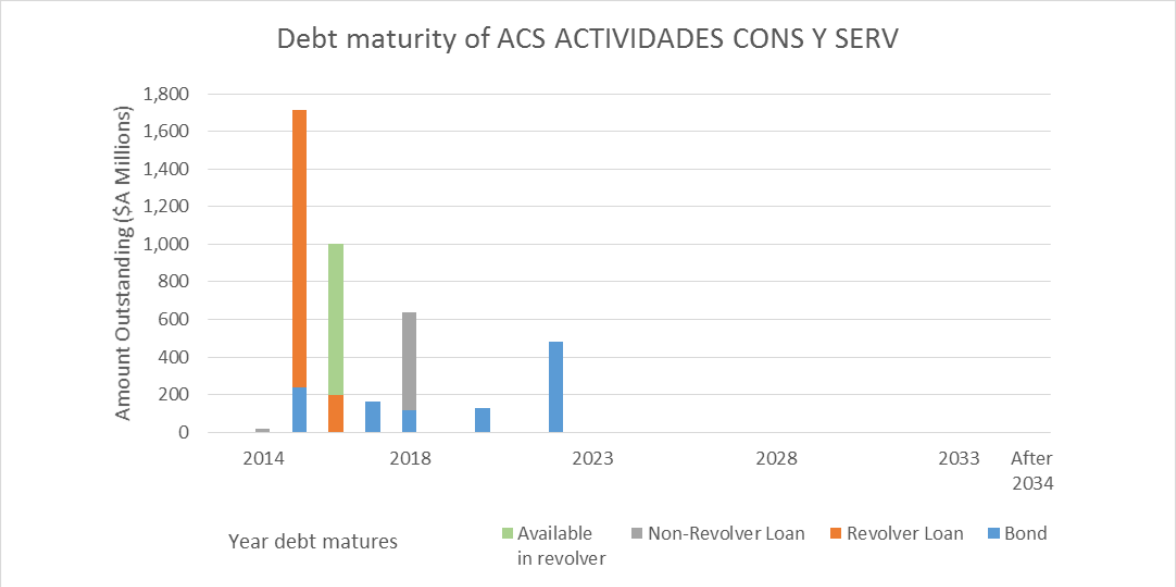


# Appendix A Parent companies with credit ratings

1. This appendix contains the year of debt issuance and year of debt maturity charts for the credit-rated debts of all 82 parent companies with credit ratings. It also shows tables indicating the number of debts, amount outstanding, and the simple and weighted average debt terms, as well as simple and weighted average time to maturity for those 82 parent companies.

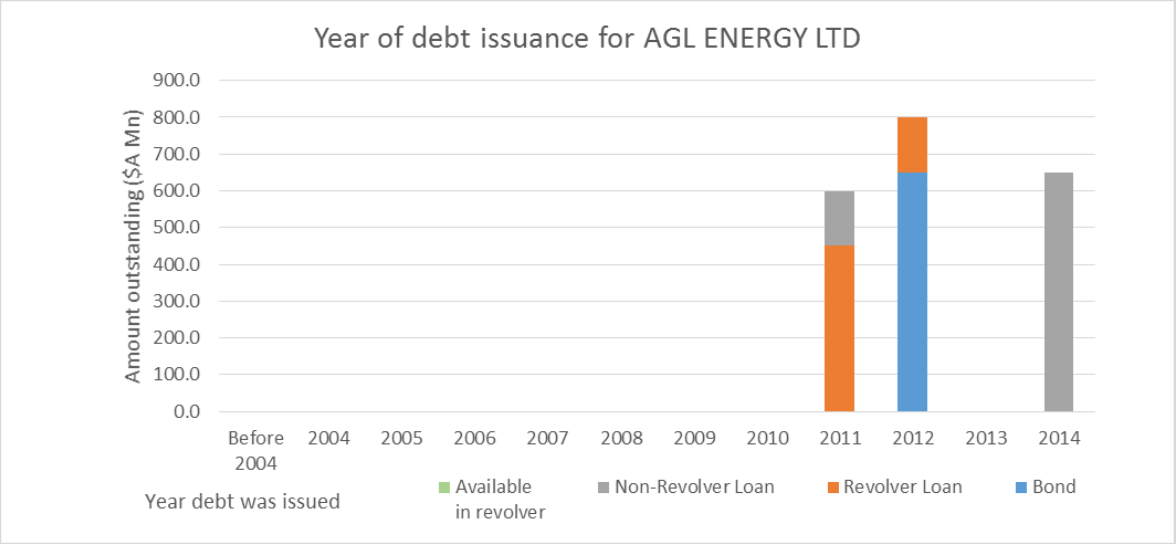
### A.1.1 ACS ACTIVIDADES DE CONSTRUCCION Y SERVICIOS SA

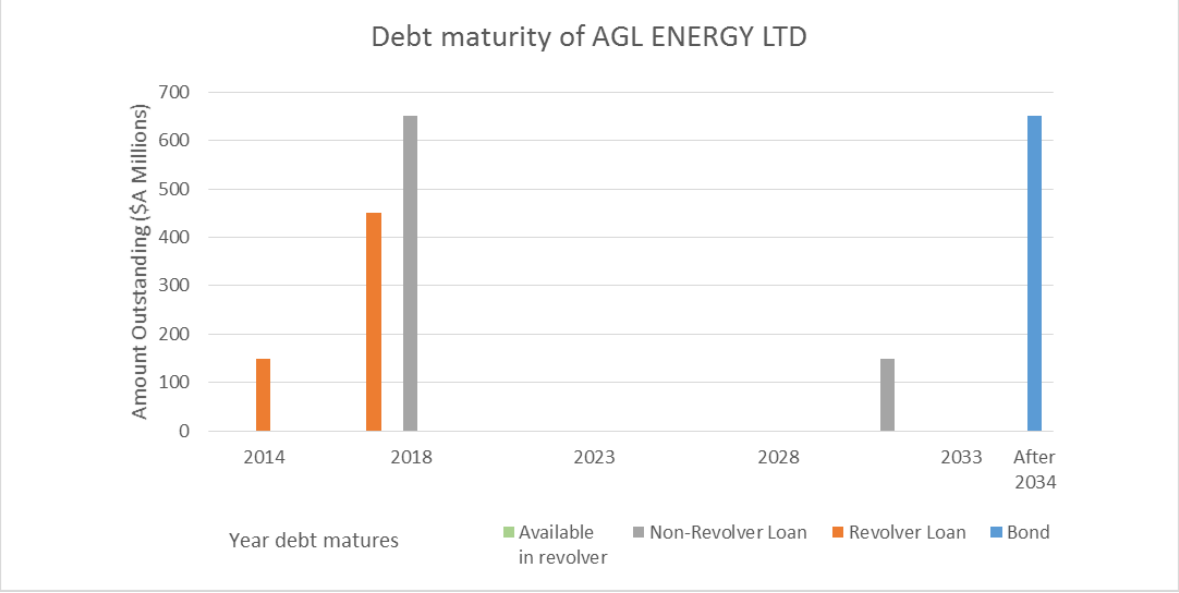


| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 6 | 6 | 4 | 16 |
| Amount Outstanding ($A Mn) | 1,133.15 | 1,675.00 | 535.80 | 3,343.95 |
| Weighted average debt term | 8.75 | 3.06 | 4.99 | 5.29 |
| Simple average debt term | 8.17 | 3.04 | 3.42 | 5.49 |
| Weighted average time to maturity | 5.08 | 1.17 | 3.96 | 2.94 |
| Simple average time to maturity | 3.72 | 1.17 | 1.95 | 2.56 |

### A.1.2 AGL ENERGY LTD

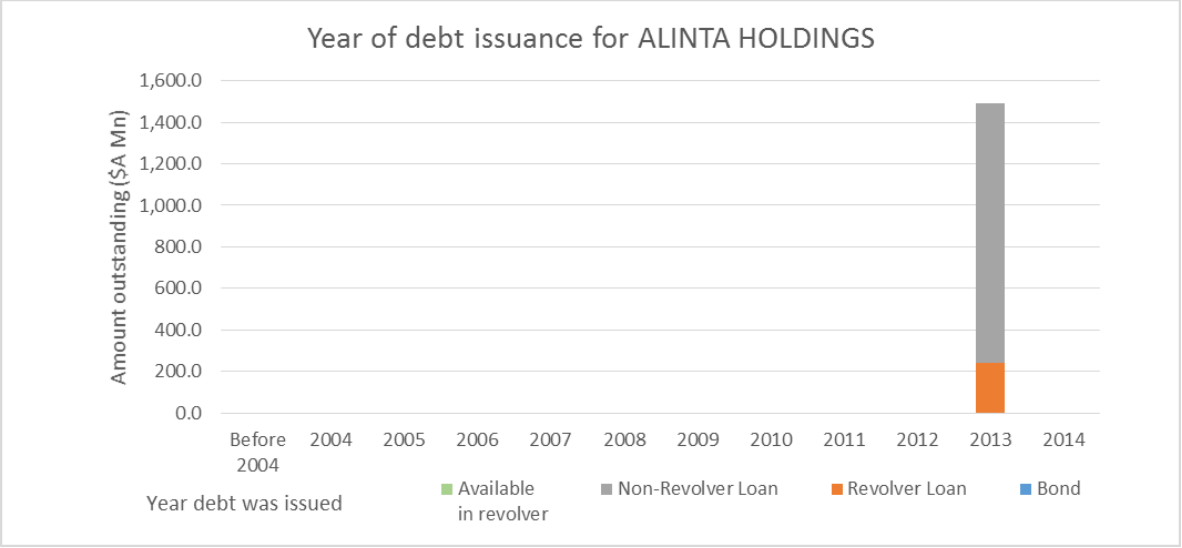


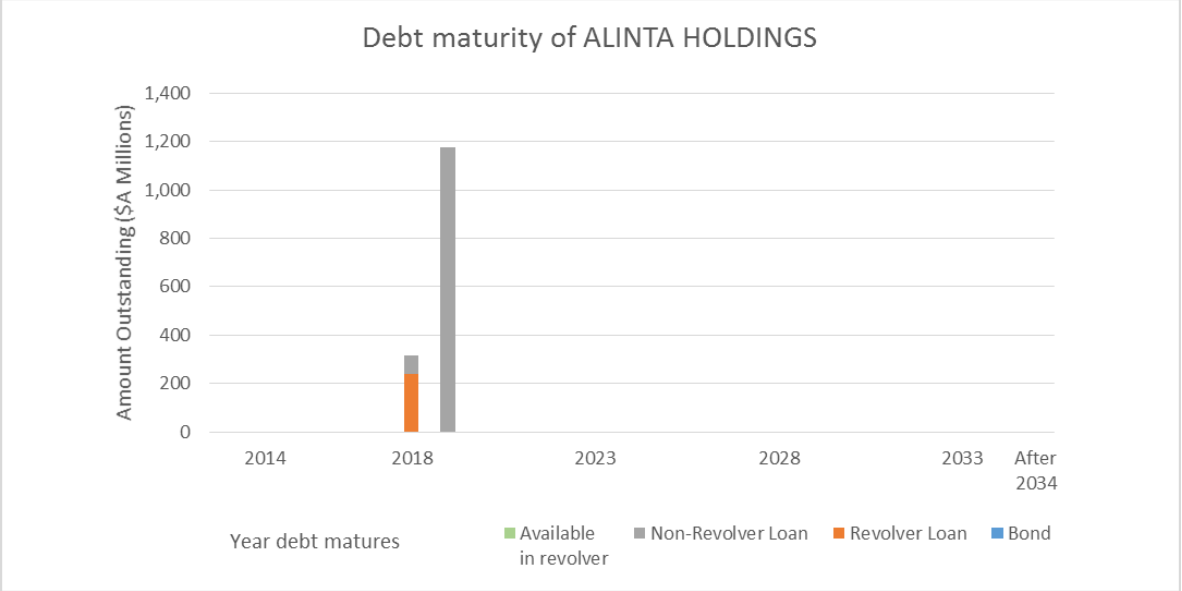




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 2 | 2 | 5 |
| Amount Outstanding ($A Mn) | 650.00 | 600.00 | 800.00 | 2,050.00 |
| Weighted average debt term | 27.18 | 4.91 | 7.00 | 12.78 |
| Simple average debt term | 27.18 | 3.94 | 12.00 | 11.81 |
| Weighted average time to maturity | 24.63 | 2.01 | 6.09 | 10.77 |
| Simple average time to maturity | 24.63 | 1.39 | 10.19 | 9.56 |

**One bond is due in 2031 with A$ 150 million outstanding, and another is due in 2039 with A$650 million outstanding.*

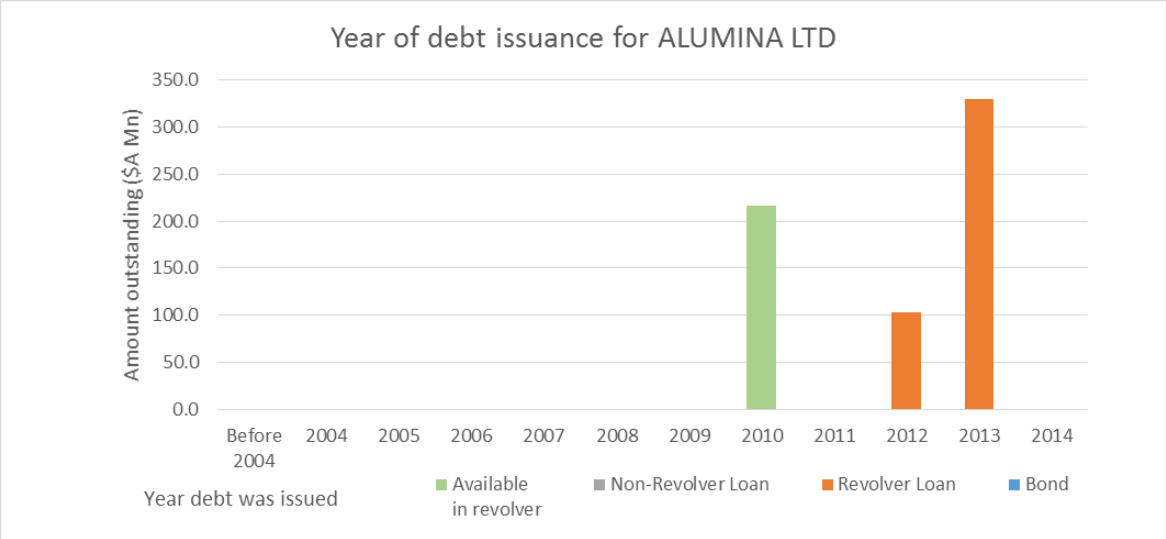
### A.1.3 ALINTA HOLDINGS

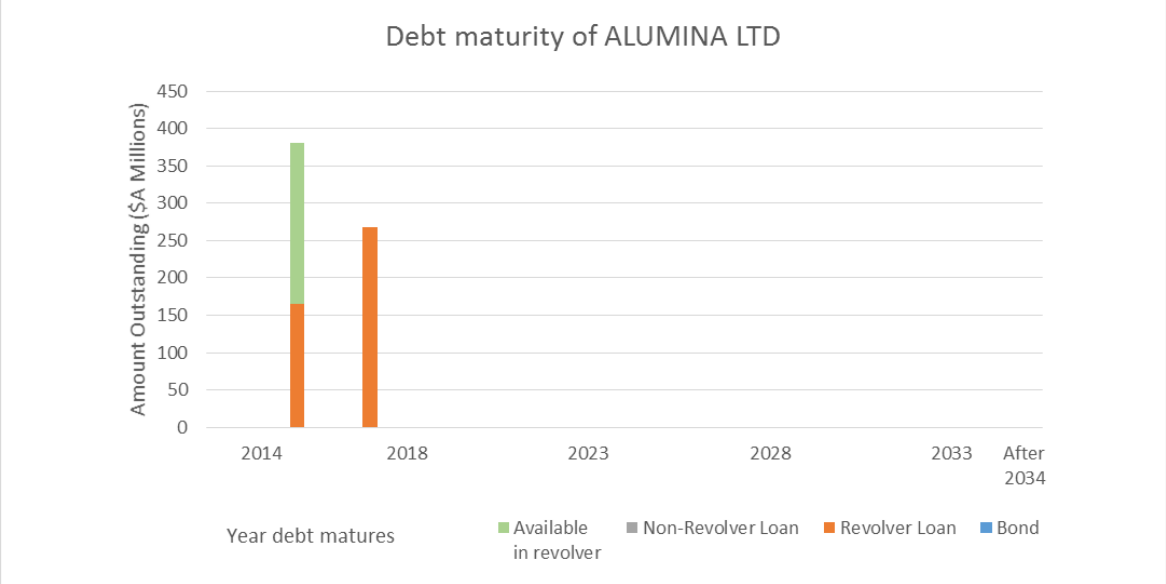



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 1 | 3 | 4 |
| Amount Outstanding ($A Mn) | 0.00 | 240.00 | 1,250.82 | 1,490.82 |
| Weighted average debt term | N/A | 5.00 | 5.94 | 5.79 |
| Simple average debt term | N/A | 5.00 | 11.00 | 4.00 |
| Weighted average time to maturity | N/A | 3.81 | 4.75 | 4.60 |
| Simple average time to maturity | N/A | 3.81 | 8.63 | 4.15 |

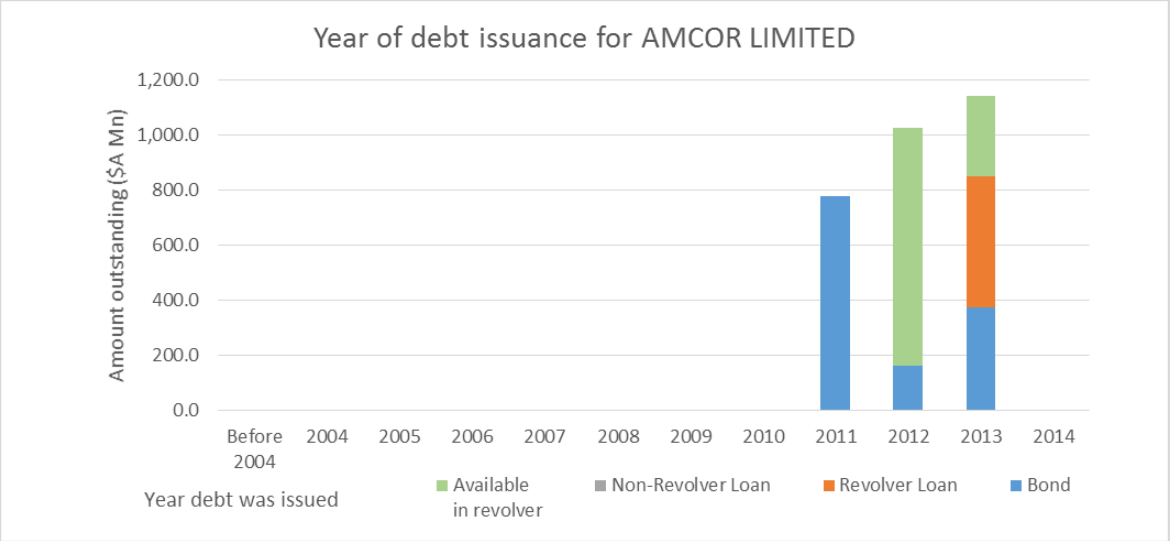
### A.1.4 ALUMINA LTD

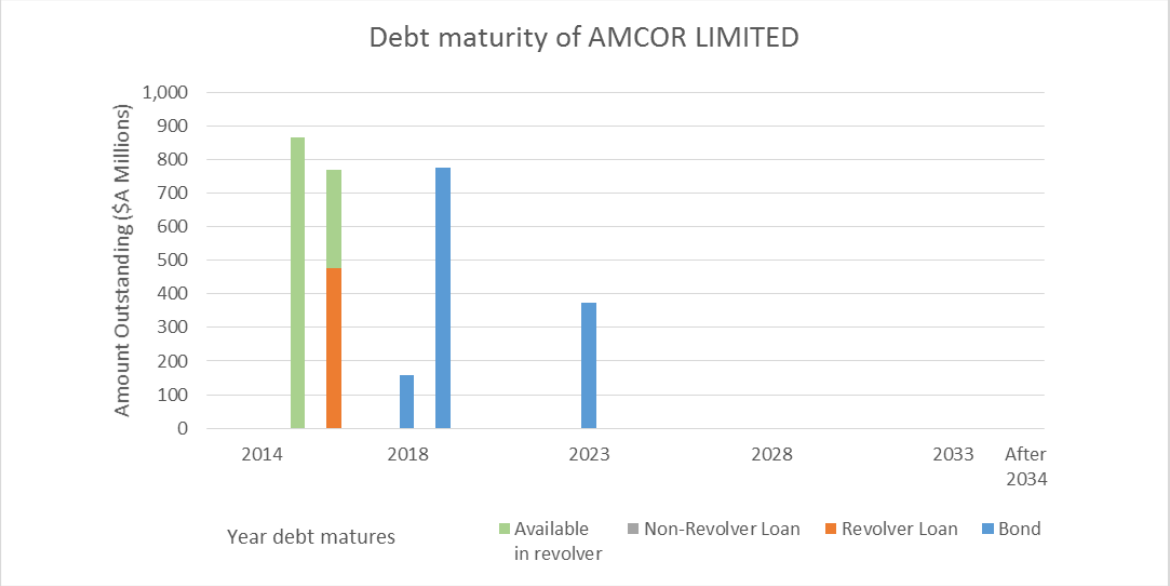



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 4 | 0 | 4 |
| Amount Outstanding ($A Mn) | 0.00 | 432.62 | 0.00 | 432.62 |
| Weighted average debt term | N/A | 3.50 | N/A | 3.50 |
| Simple average debt term | N/A | 4.02 | 0.00 | 4.02 |
| Weighted average time to maturity | N/A | 2.37 | N/A | 2.37 |
| Simple average time to maturity | N/A | 2.11 | 0.00 | 2.11 |

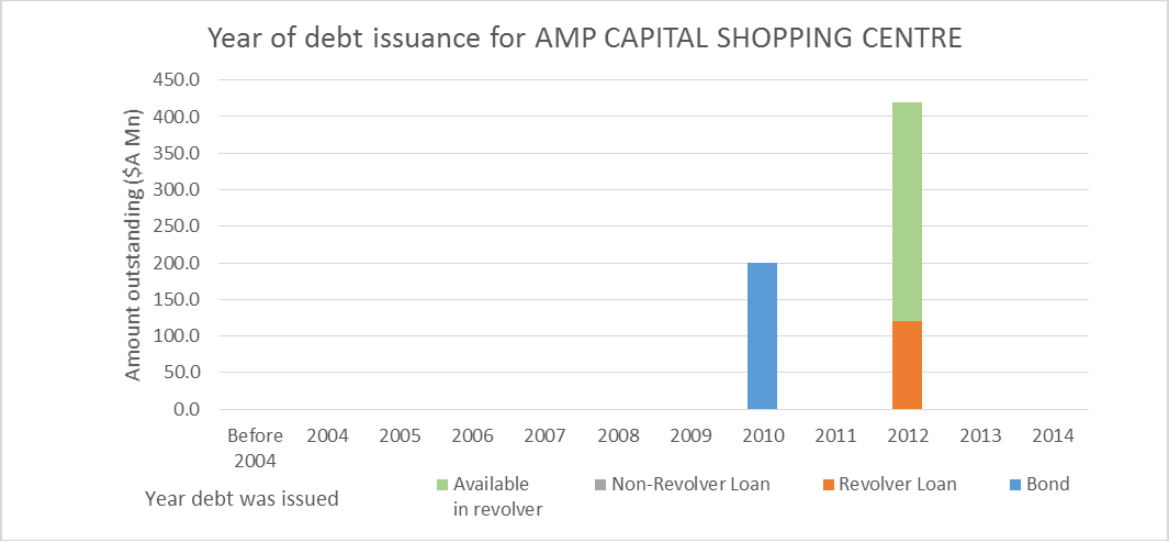
## A.1.5 AMCOR LIMITED

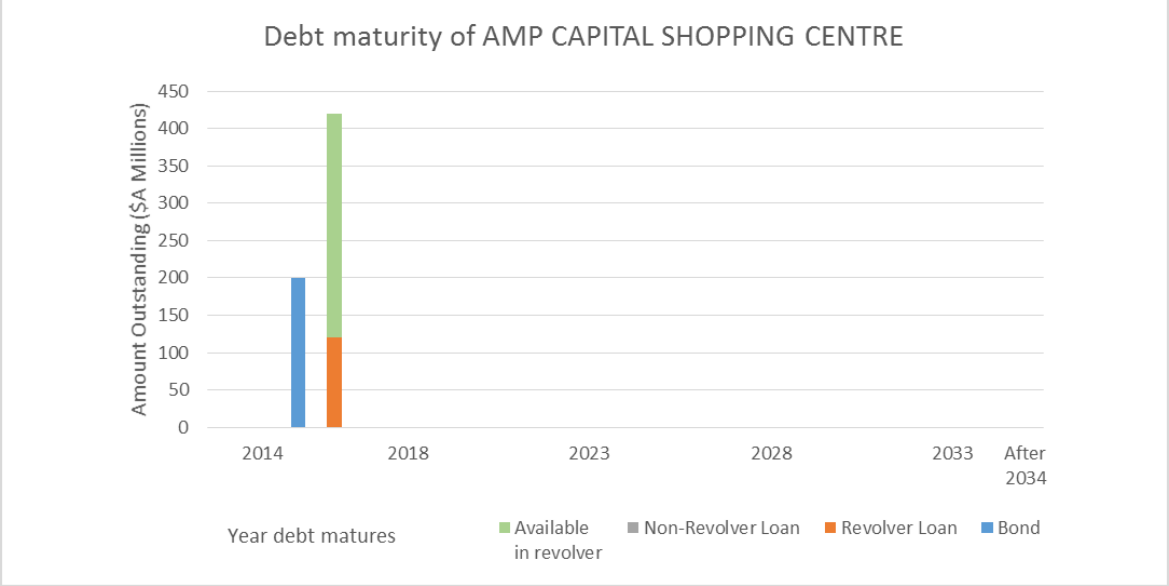



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 3 | 2 | 0 | 5 |
| Amount Outstanding ($A Mn) | 1,309.63 | 475.94 | 0.00 | 1,785.58 |
| Weighted average debt term | 8.38 | 3.00 | N/A | 6.94 |
| Simple average debt term | 8.03 | 3.02 | 0.00 | 6.02 |
| Weighted average time to maturity | 5.48 | 2.01 | N/A | 4.56 |
| Simple average time to maturity | 5.45 | 1.41 | 0.00 | 3.84 |

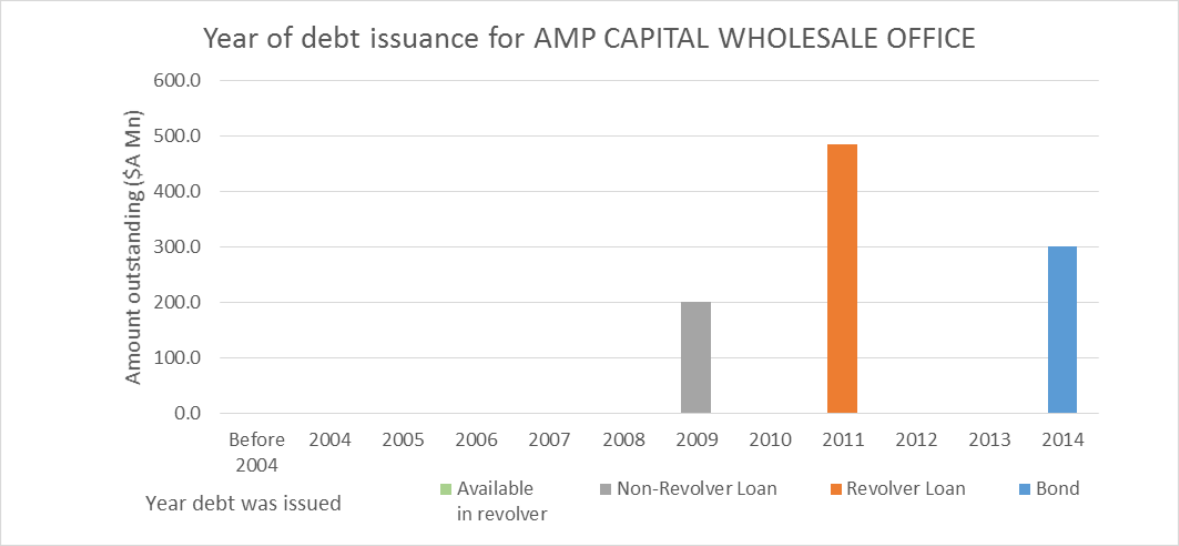
## A.1.6 AMP CAPITAL SHOPPING CENTRE FUND

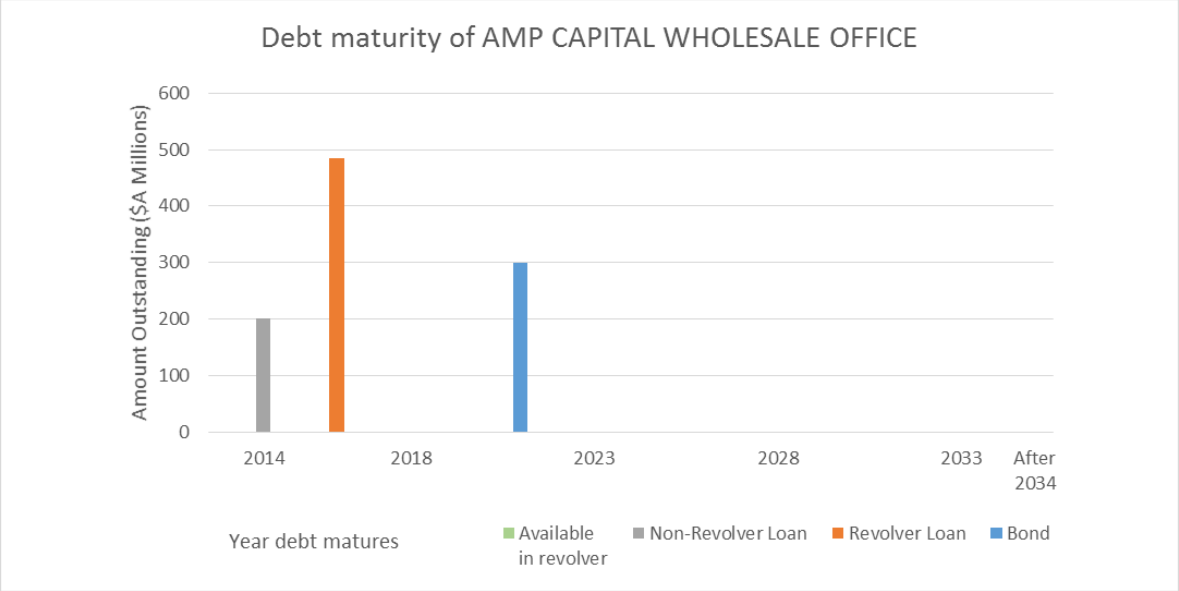



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 1 | 0 | 2 |
| Amount Outstanding ($A Mn) | 200.00 | 120.00 | 0.00 | 320.00 |
| Weighted average debt term | 5.00 | 4.46 | N/A | 4.80 |
| Simple average debt term | 5.00 | 4.46 | 0.00 | 4.73 |
| Weighted average time to maturity | 0.52 | 2.11 | N/A | 1.12 |
| Simple average time to maturity | 0.52 | 2.11 | 0.00 | 1.32 |

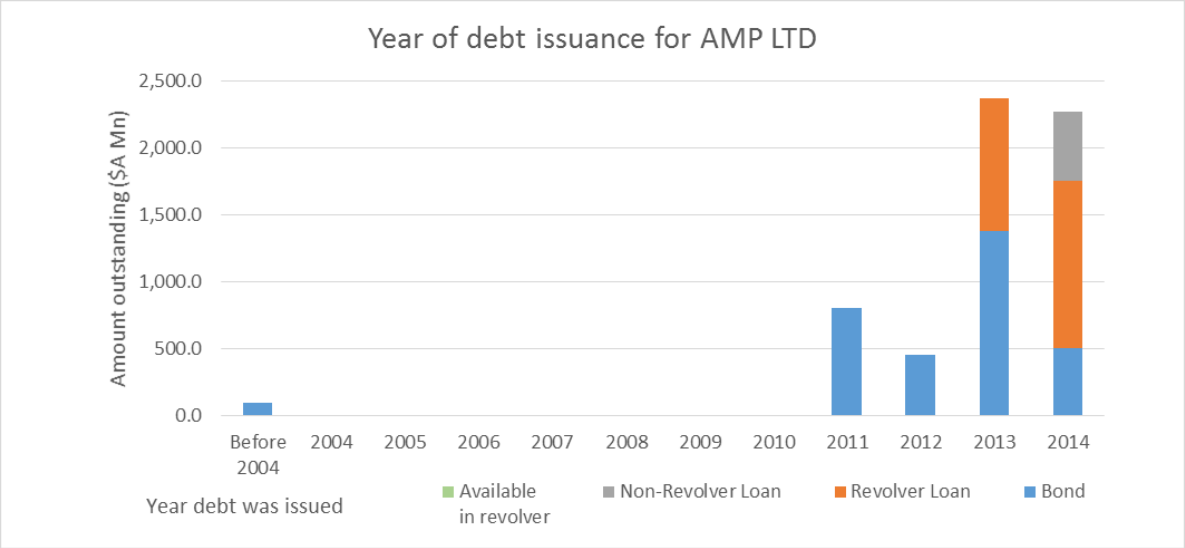
## A.1.7 AMP CAPITAL WHOLESALE OFFICE FUND

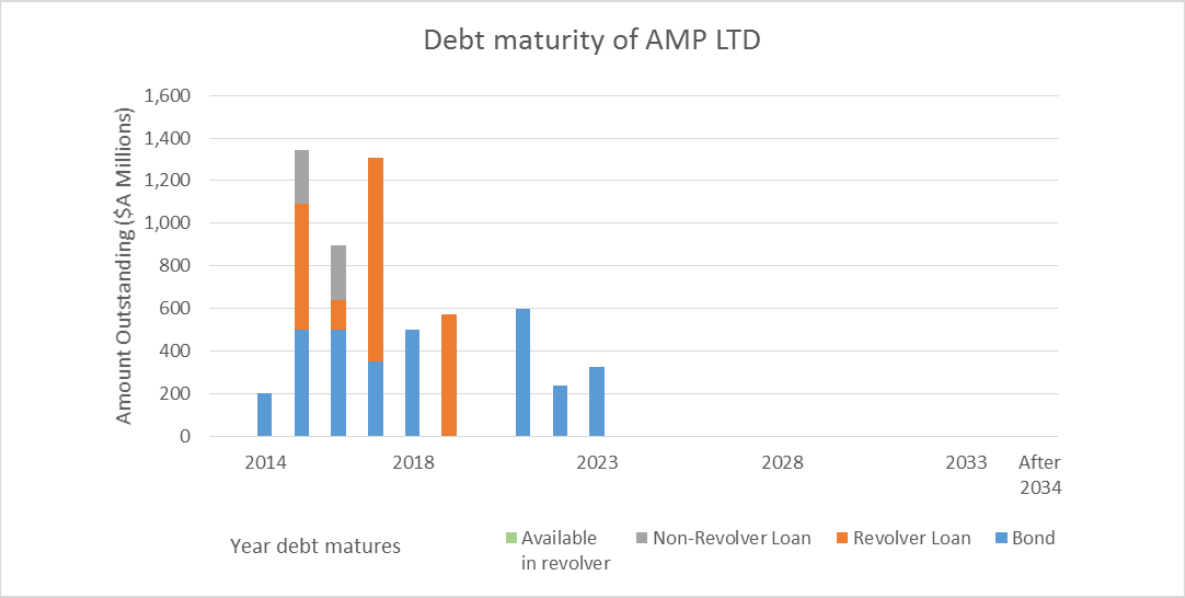



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 1 | 1 | 3 |
| Amount Outstanding ($A Mn) | 300.00 | 485.00 | 200.00 | 985.00 |
| Weighted average debt term | 7.00 | 4.50 | 5.00 | 5.36 |
| Simple average debt term | 7.00 | 4.50 | 5.00 | 5.50 |
| Weighted average time to maturity | 6.97 | 1.60 | 0.08 | 2.93 |
| Simple average time to maturity | 6.97 | 1.60 | 0.08 | 2.88 |

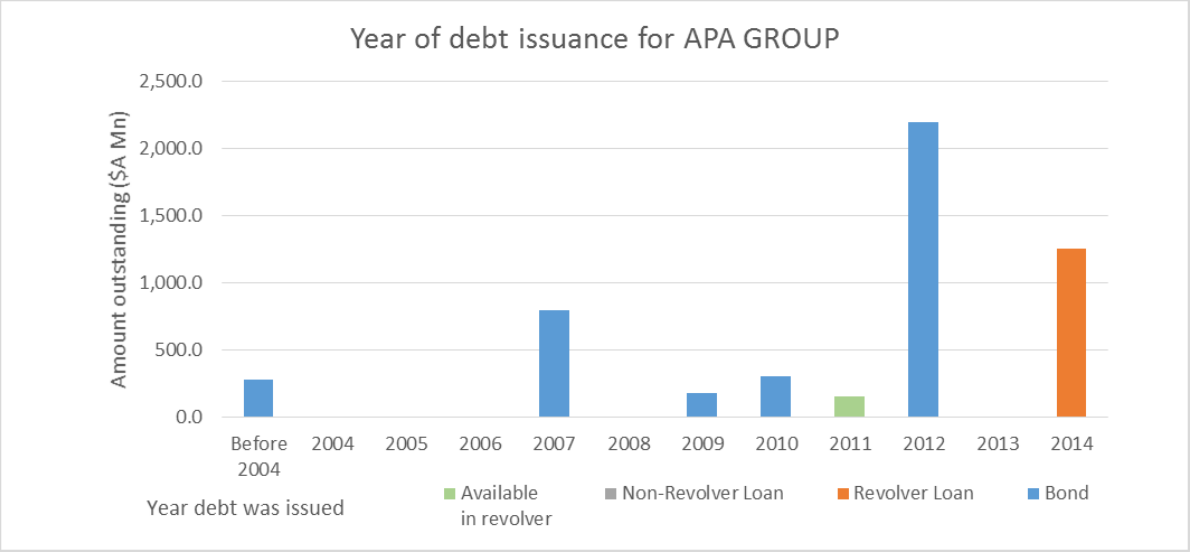
### A.1.8 AMP LTD

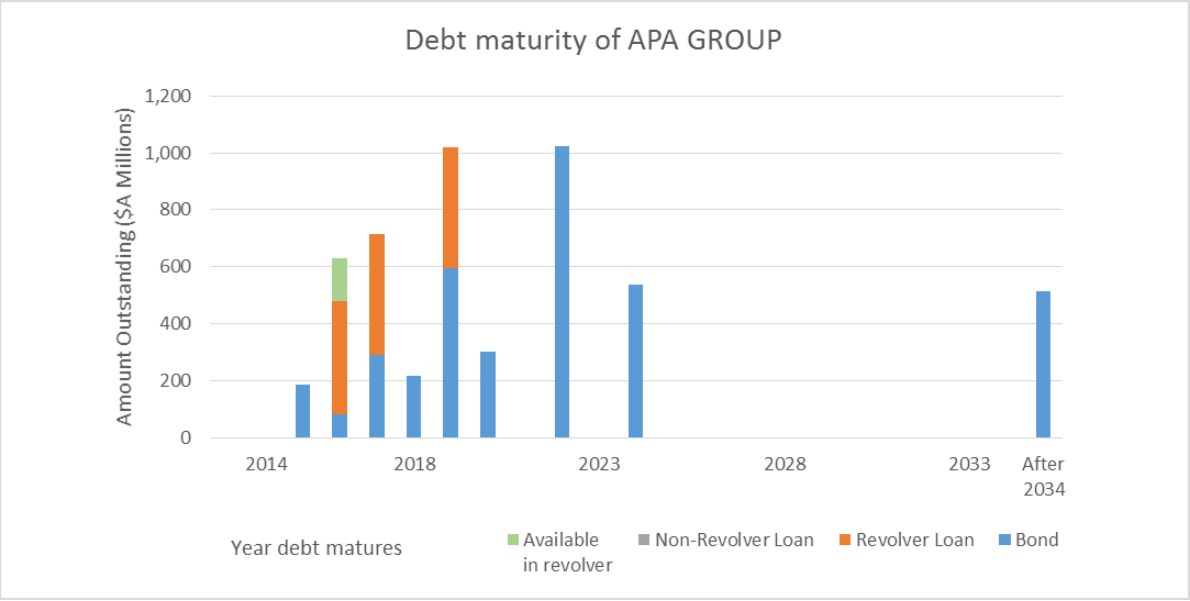



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 12 | 9 | 2 | 23 |
| Amount Outstanding ($A Mn) | 3,214.87 | 2,255.81 | 513.00 | 5,983.68 |
| Weighted average debt term | 6.10 | 3.45 | 1.74 | 4.73 |
| Simple average debt term | 6.33 | 2.58 | 0.39 | 4.46 |
| Weighted average time to maturity | 3.89 | 2.85 | 1.16 | 3.27 |
| Simple average time to maturity | 3.45 | 1.98 | 0.26 | 2.68 |

### A.1.9 APA GROUP



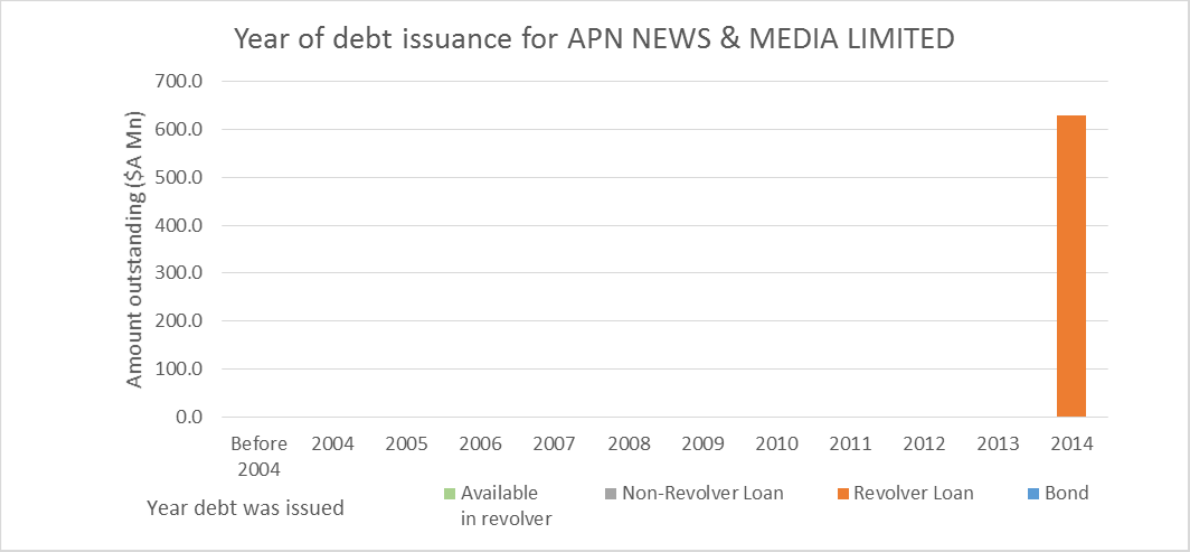



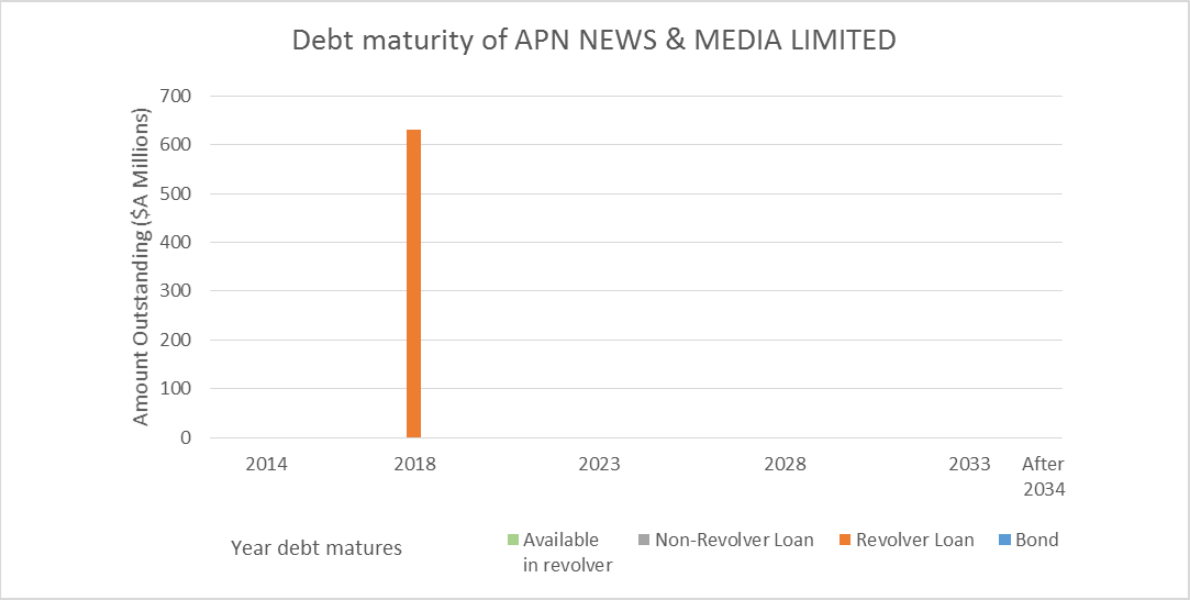

18 bonds, 4 rev, 0 non-rev. After 2034: 1 bond due 2072.

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 18 | 4 | 0 | 22 |
| Amount Outstanding ($A Mn) | 3,741.89 | 1,250.00 | 0.00 | 4,991.89 |
| Weighted average debt term | 17.50 | 3.61 | N/A | 14.02 |
| Simple average debt term | 13.81 | 3.94 | 0.00 | 12.01 |
| Weighted average time to maturity | 13.27 | 3.28 | N/A | 10.77 |
| Simple average time to maturity | 7.83 | 2.93 | 0.00 | 6.94 |

**One bond due in 2072 with A$ 515 million outstanding.*

### A.1.10 APN NEWS & MEDIA LIMITED

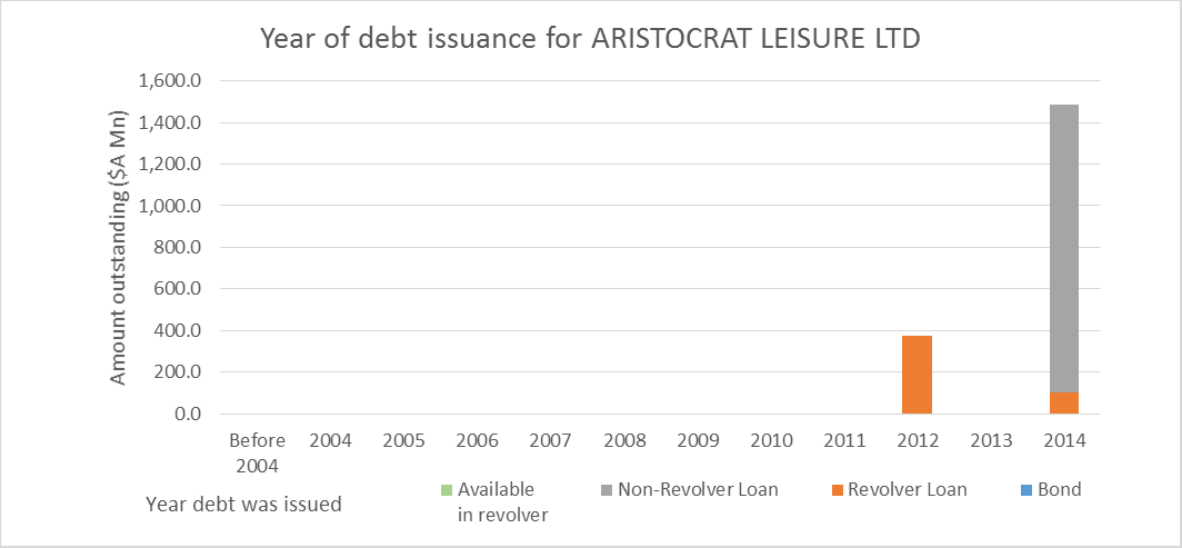


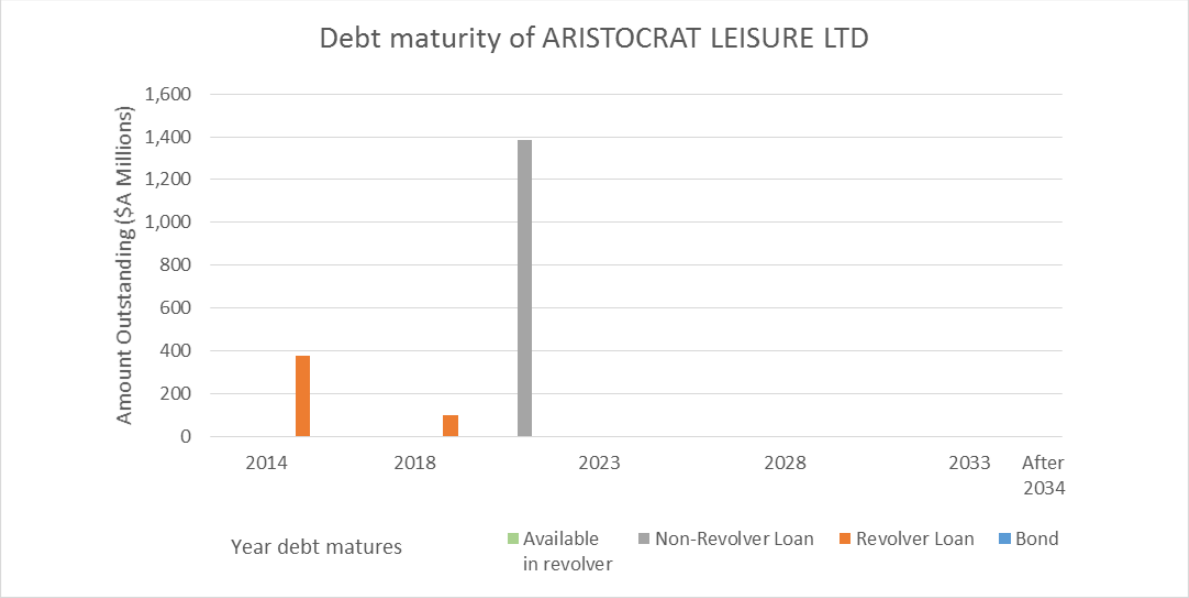




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 1 | 0 | 1 |
| Amount Outstanding ($A Mn) | 0.00 | 630.00 | 0.00 | 630.00 |
| Weighted average debt term | N/A | 3.42 | N/A | 3.42 |
| Simple average debt term | N/A | 3.42 | 0.00 | 3.42 |
| Weighted average time to maturity | N/A | 3.26 | N/A | 3.26 |
| Simple average time to maturity | N/A | 3.26 | 0.00 | 3.26 |

**Bloomberg does not have any information on the amount outstanding in the revolver loan.*

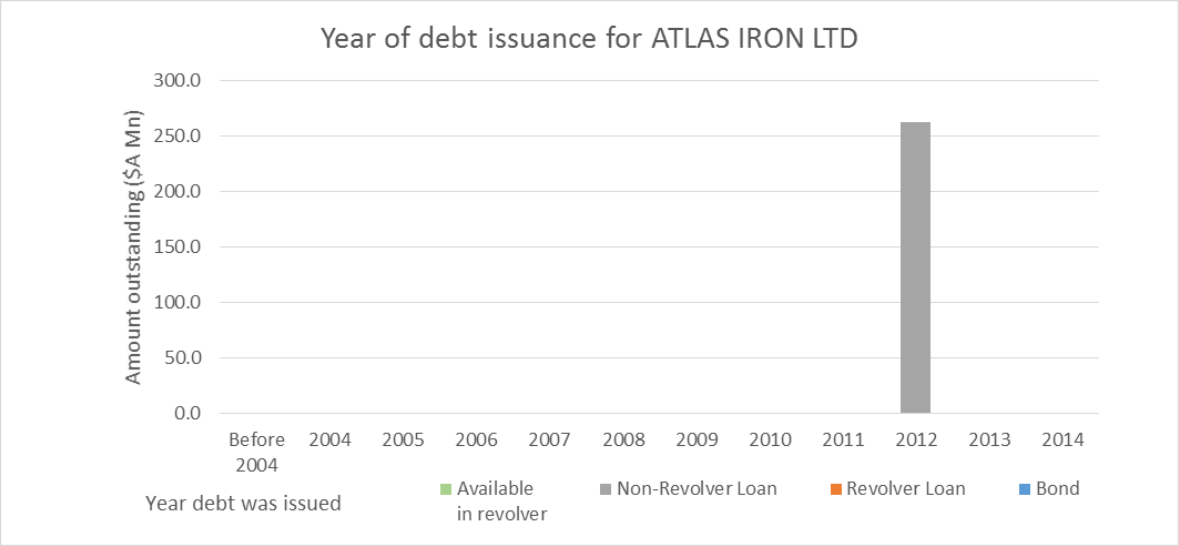
### A.1.11 ARISTOCRAT LEISURE LTD

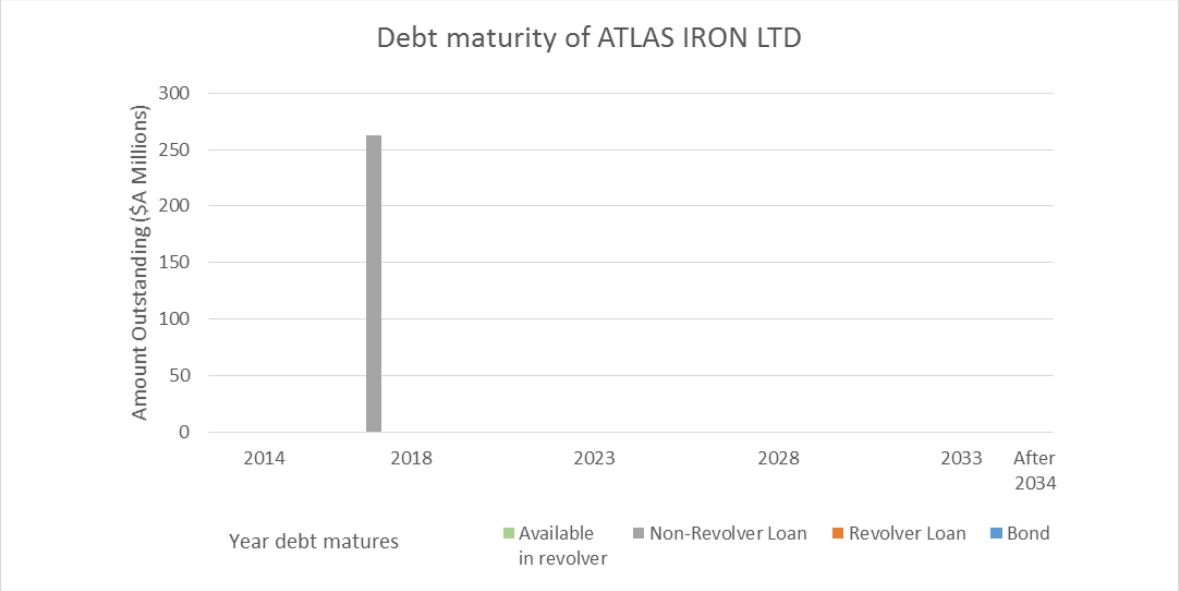



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 3 | 1 | 4 |
| Amount Outstanding ($A Mn) | 0.00 | 475.00 | 1,386.96 | 1,861.96 |
| Weighted average debt term | N/A | 3.76 | 7.23 | 6.34 |
| Simple average debt term | N/A | 3.99 | 2.41 | 4.80 |
| Weighted average time to maturity | N/A | 1.85 | 6.94 | 5.64 |
| Simple average time to maturity | N/A | 2.33 | 2.31 | 3.48 |

### A.1.12 ATLAS IRON LTD

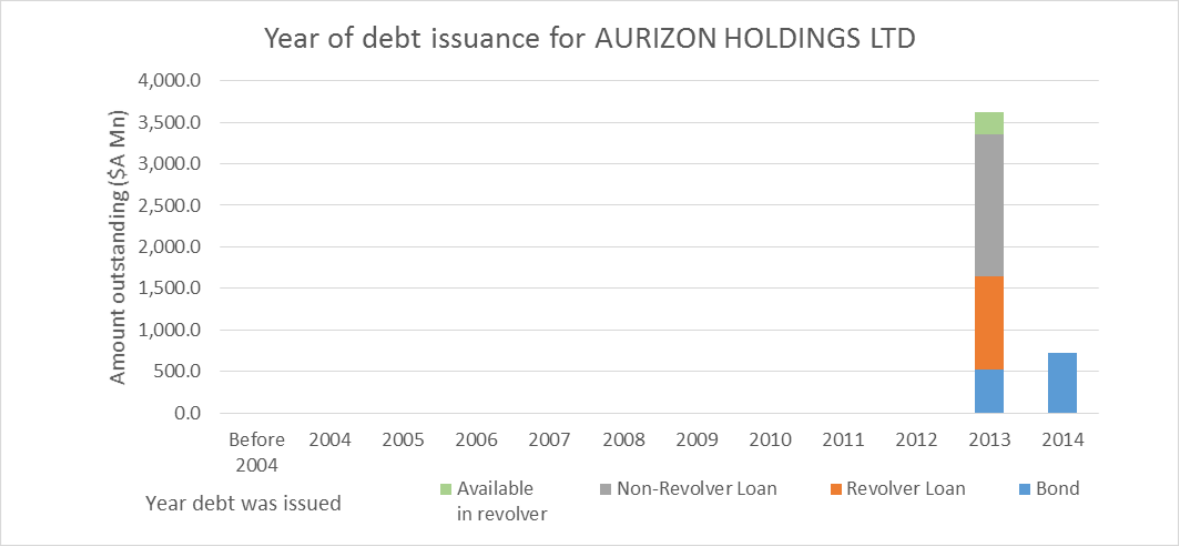


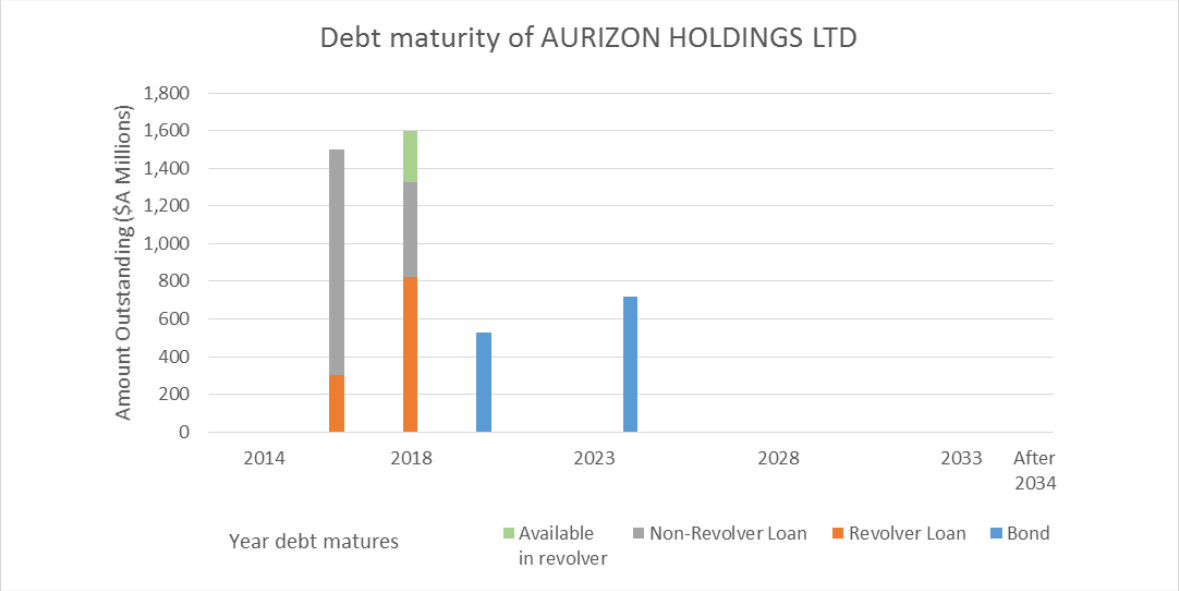




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 0 | 1 | 1 |
| Amount Outstanding ($A Mn) | 0.00 | 0.00 | 262.20 | 262.20 |
| Weighted average debt term | N/A | N/A | 5.00 | 5.00 |
| Simple average debt term | N/A | N/A | N/A | 5.00 |
| Weighted average time to maturity | N/A | N/A | 3.14 | 3.14 |
| Simple average time to maturity | N/A | N/A | N/A | 3.14 |

**Atlas Iron Ltd has an exceptionally low debt-to-equity ratio of 17%.*

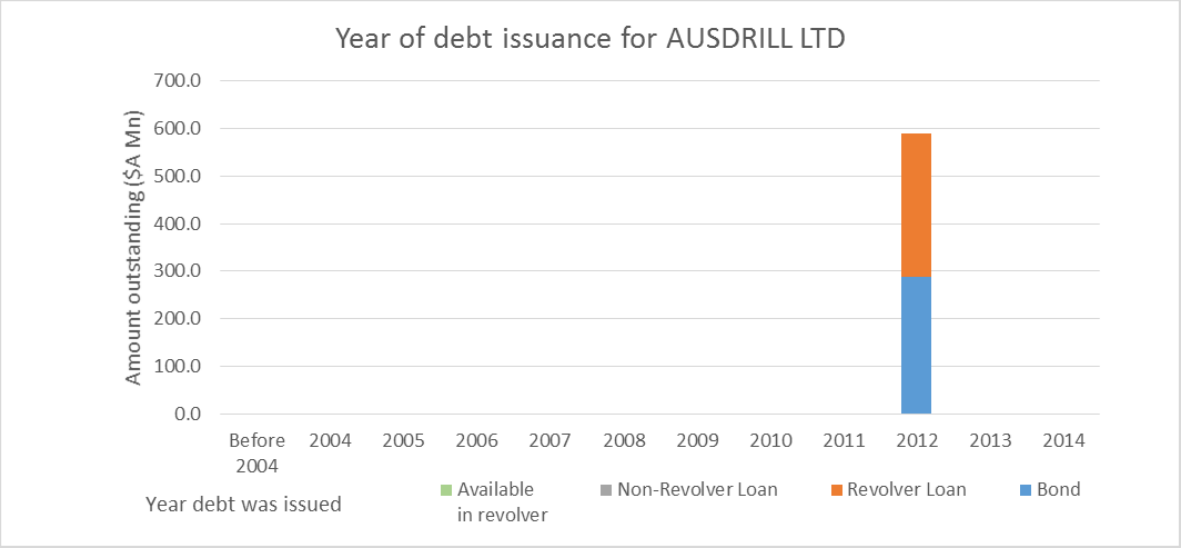
## A.1.13 AURIZON HOLDINGS LTD

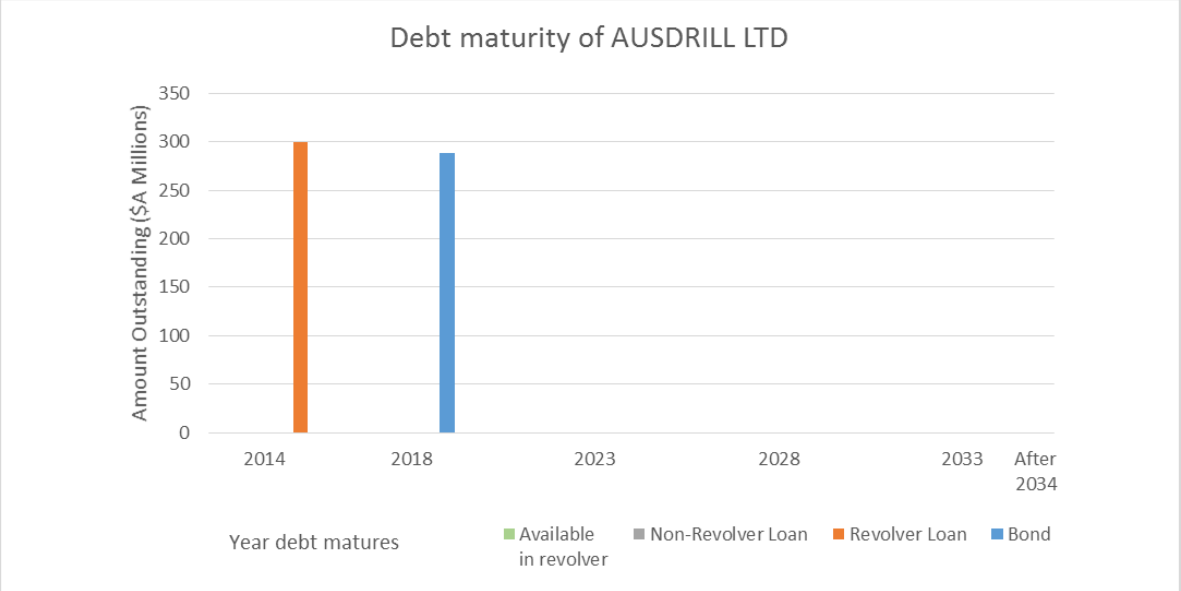



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 3 | 2 | 7 |
| Amount Outstanding ($A Mn) | 1,243.70 | 1,125.00 | 1,700.00 | 4,068.70 |
| Weighted average debt term | 8.73 | 4.47 | 3.59 | 5.40 |
| Simple average debt term | 8.50 | 4.33 | 2.67 | 5.43 |
| Weighted average time to maturity | 8.27 | 3.15 | 2.27 | 4.35 |
| Simple average time to maturity | 7.97 | 3.02 | 1.79 | 4.34 |

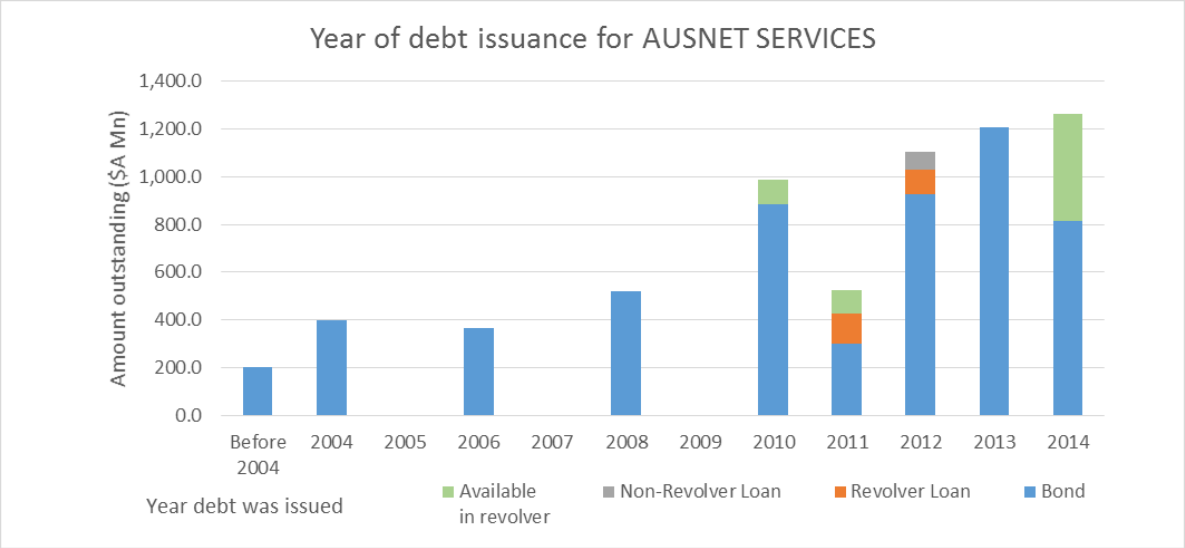
## A.1.14 AUSDRILL LTD

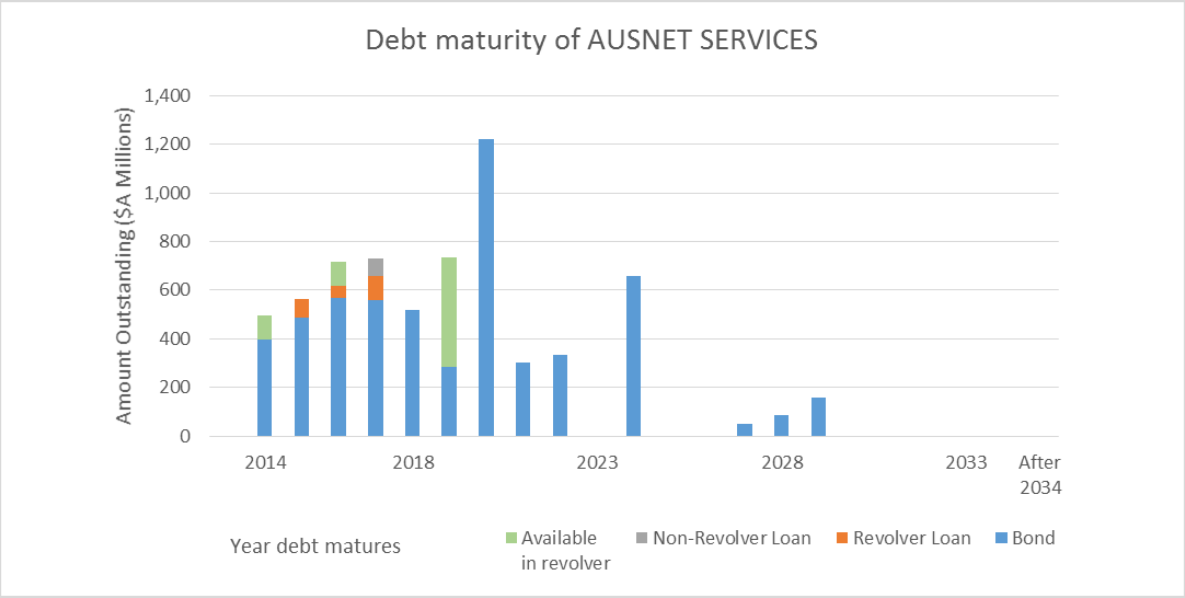



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 3 | 0 | 4 |
| Amount Outstanding ($A Mn) | 288.82 | 300.00 | 0.00 | 588.82 |
| Weighted average debt term | 6.98 | 3.00 | N/A | 4.95 |
| Simple average debt term | 6.98 | 3.00 | 0.00 | 3.99 |
| Weighted average time to maturity | 5.03 | 0.96 | N/A | 2.96 |
| Simple average time to maturity | 5.03 | 0.96 | 0.00 | 1.98 |

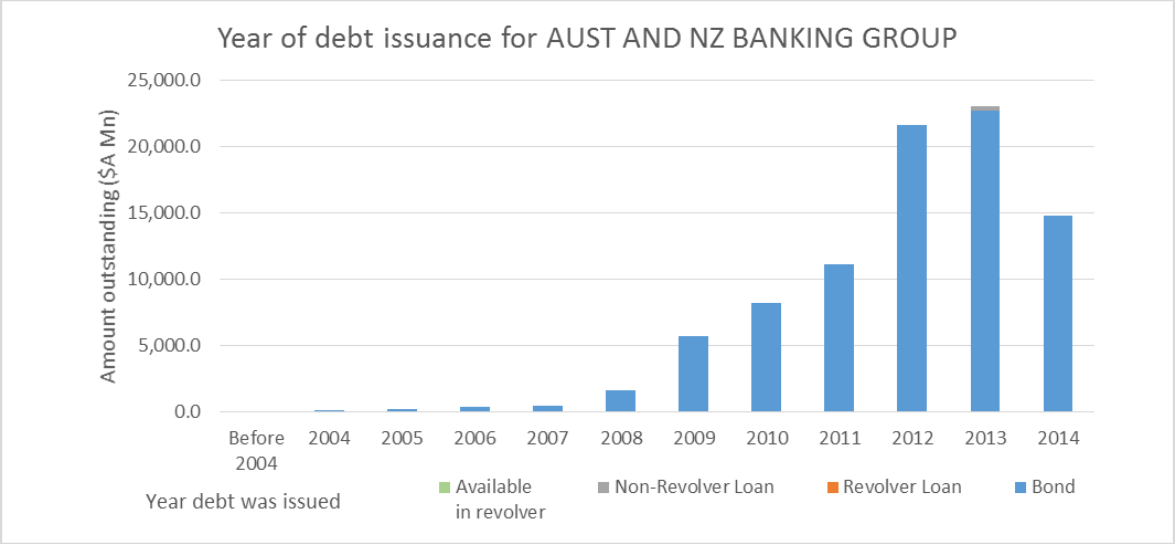
## A.1.15 AUSNET SERVICES

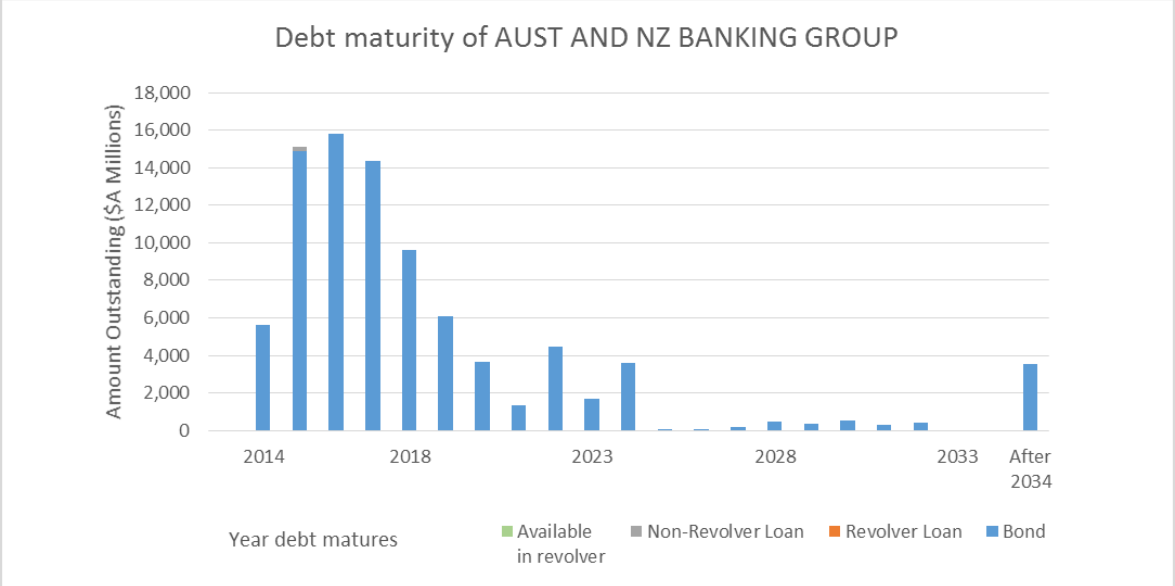



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 23 | 5 | 1 | 29 |
| Amount Outstanding ($A Mn) | 5,619.35 | 225.00 | 75.00 | 5,919.35 |
| Weighted average debt term | 9.01 | 4.67 | 5.00 | 8.80 |
| Simple average debt term | 10.72 | 4.60 | 1.00 | 9.47 |
| Weighted average time to maturity | 4.97 | 1.98 | 2.94 | 4.83 |
| Simple average time to maturity | 5.80 | 1.99 | 0.59 | 5.04 |

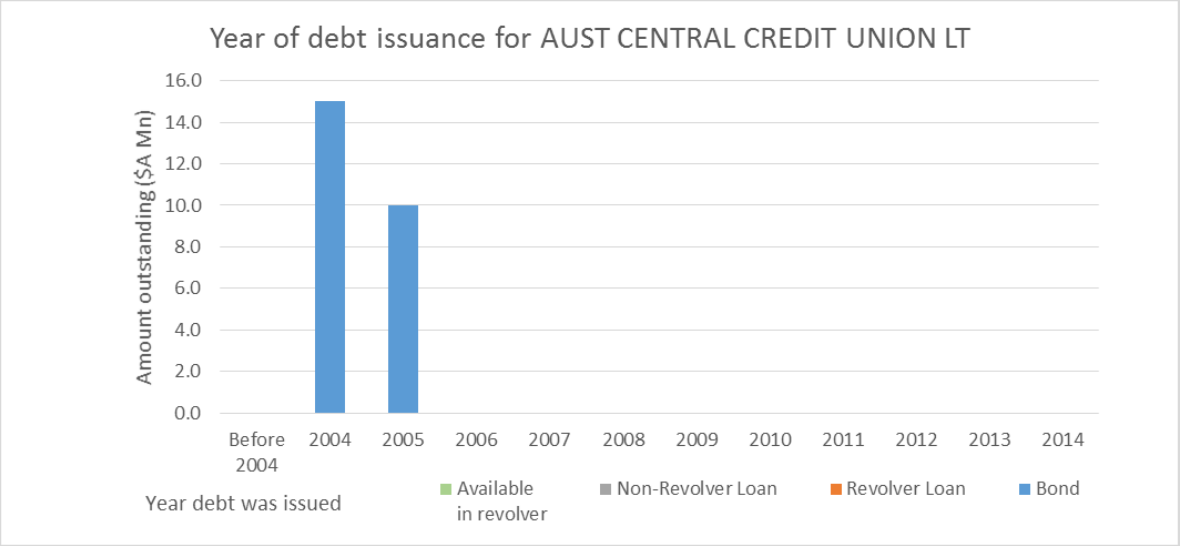
## A.1.16 AUSTRALIA & NEW ZEALAND BANKING GROUP LTD

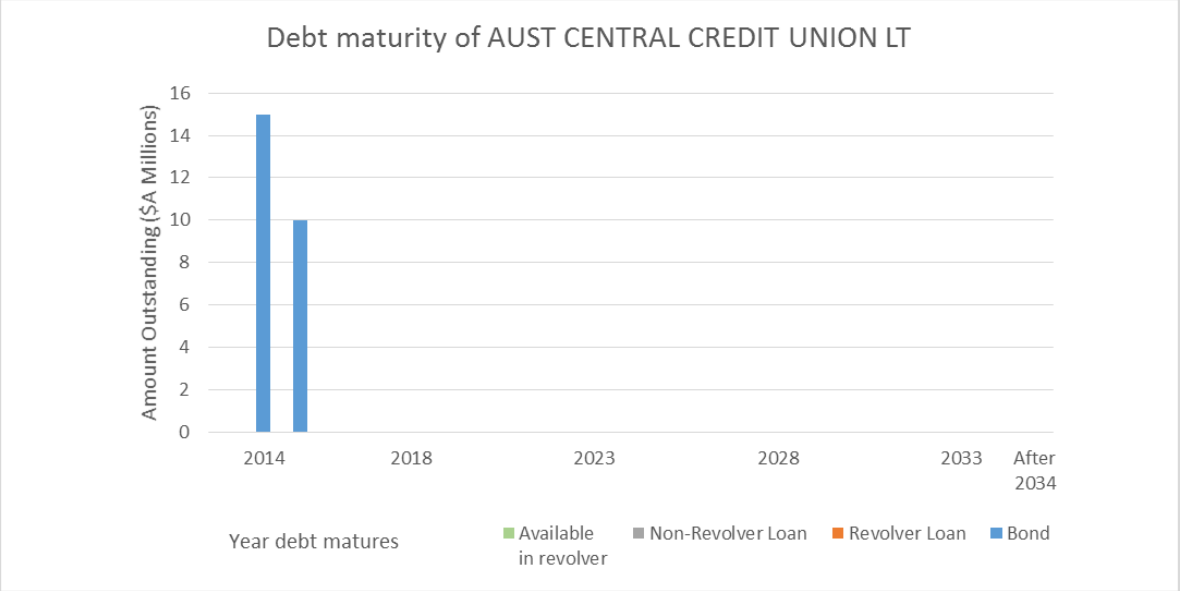



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 447 | 0 | 1 | 448 |
| Amount Outstanding ($A Mn) | 86,863.58 | 0.00 | 274.70 | 87,138.27 |
| Weighted average debt term | 6.81 | N/A | 1.83 | 6.80 |
| Simple average debt term | 10.25 | N/A | N/A | 10.23 |
| Weighted average time to maturity | 4.40 | N/A | 0.94 | 4.39 |
| Simple average time to maturity | 6.85 | N/A | N/A | 6.85 |

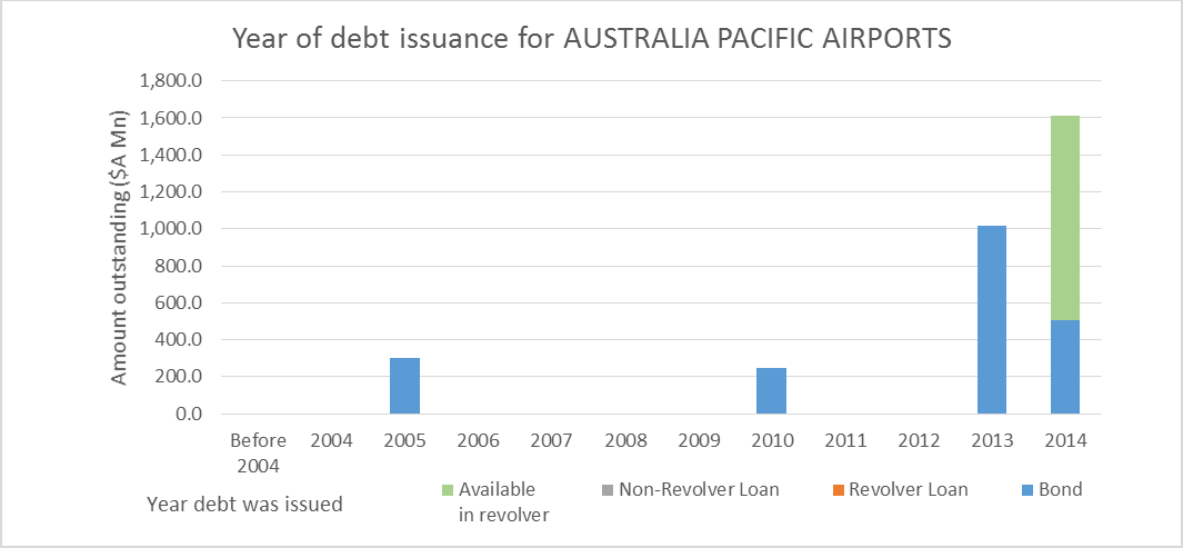
## A.1.17 AUSTRALIAN CENTRAL CREDIT UNION LTD

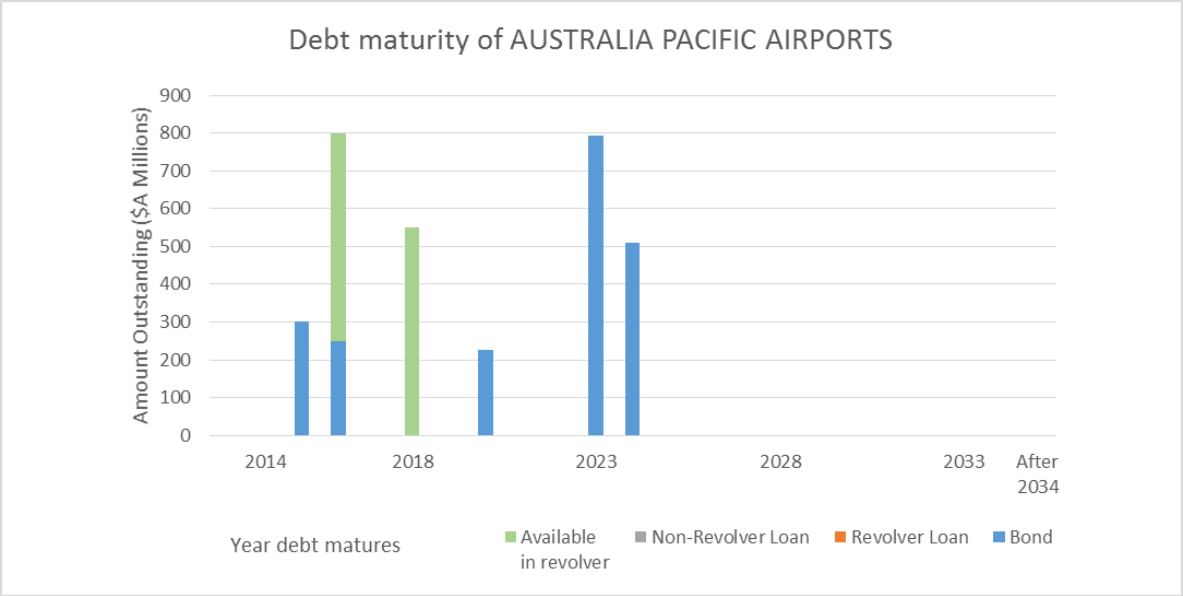



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 25.00 | 0.00 | 0.00 | 25.00 |
| Weighted average debt term | 10.00 | N/A | N/A | 10.00 |
| Simple average debt term | 10.00 | N/A | N/A | 10.00 |
| Weighted average time to maturity | 0.26 | N/A | N/A | 0.26 |
| Simple average time to maturity | 0.29 | N/A | N/A | 0.29 |

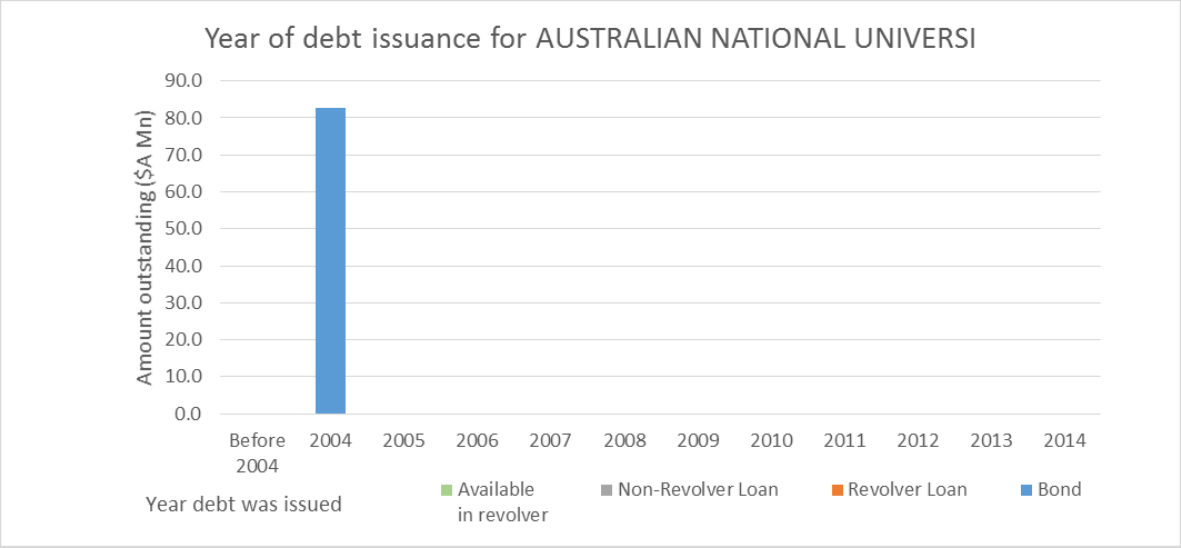
## A.1.18 AUSTRALIA PACIFIC AIRPORTS CORP LTD

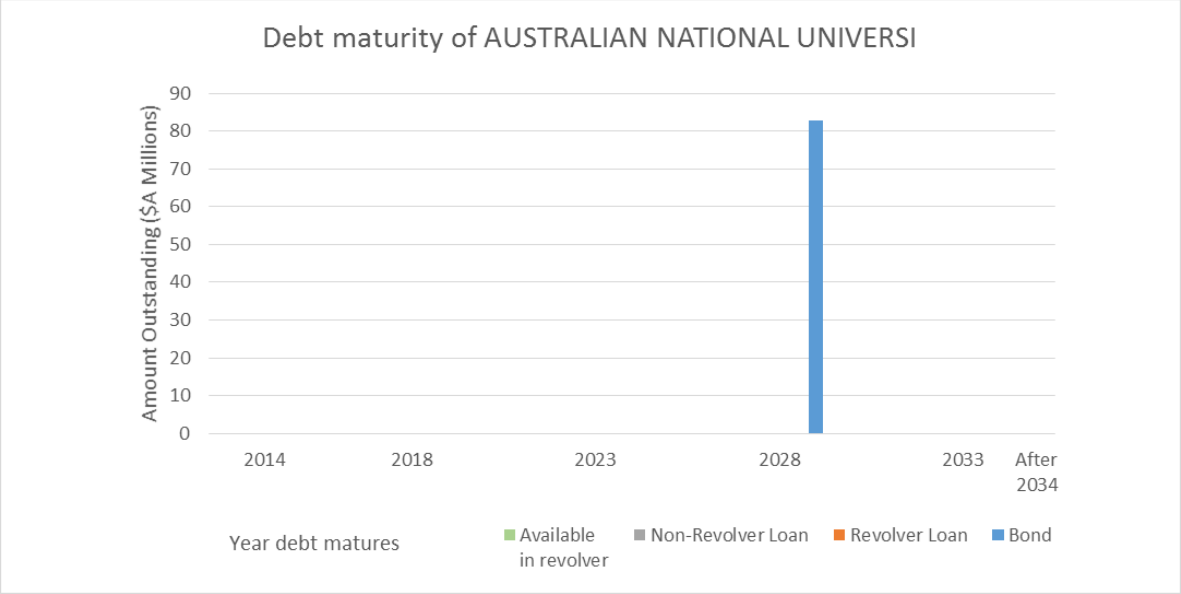



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 6 | 2 | 0 | 8 |
| Amount Outstanding ($A Mn) | 2,076.26 | 0.00 | 0.00 | 2,076.26 |
| Weighted average debt term | 9.19 | N/A | N/A | 9.19 |
| Simple average debt term | 8.83 | 3.00 | 0.00 | 7.38 |
| Weighted average time to maturity | 6.86 | N/A | N/A | 6.86 |
| Simple average time to maturity | 4.78 | 2.37 | 0.00 | 4.18 |

## A.1.19 AUSTRALIAN NATIONAL UNIVERSITY

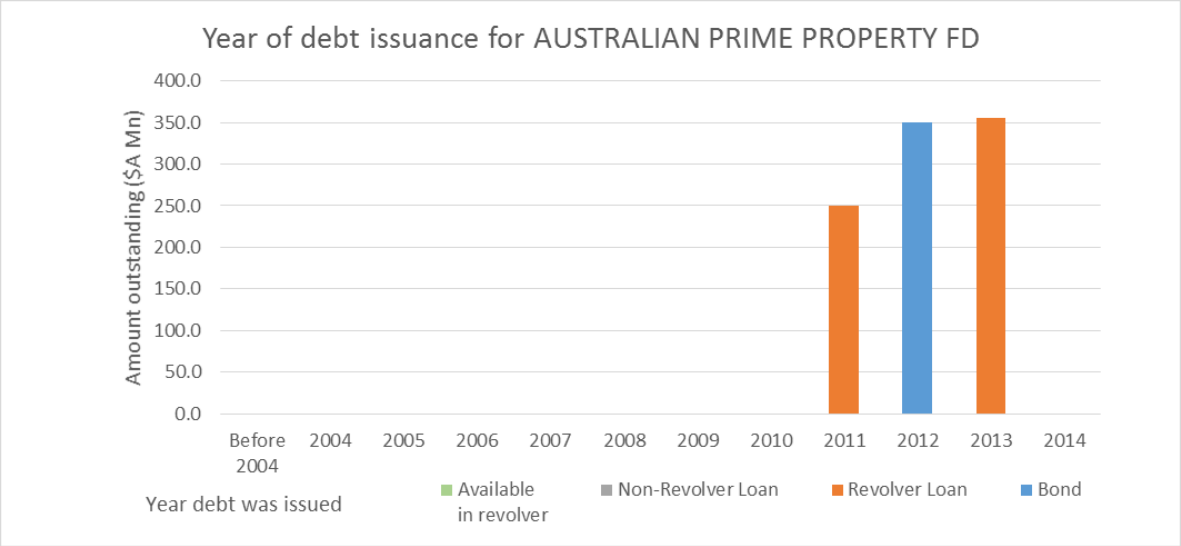


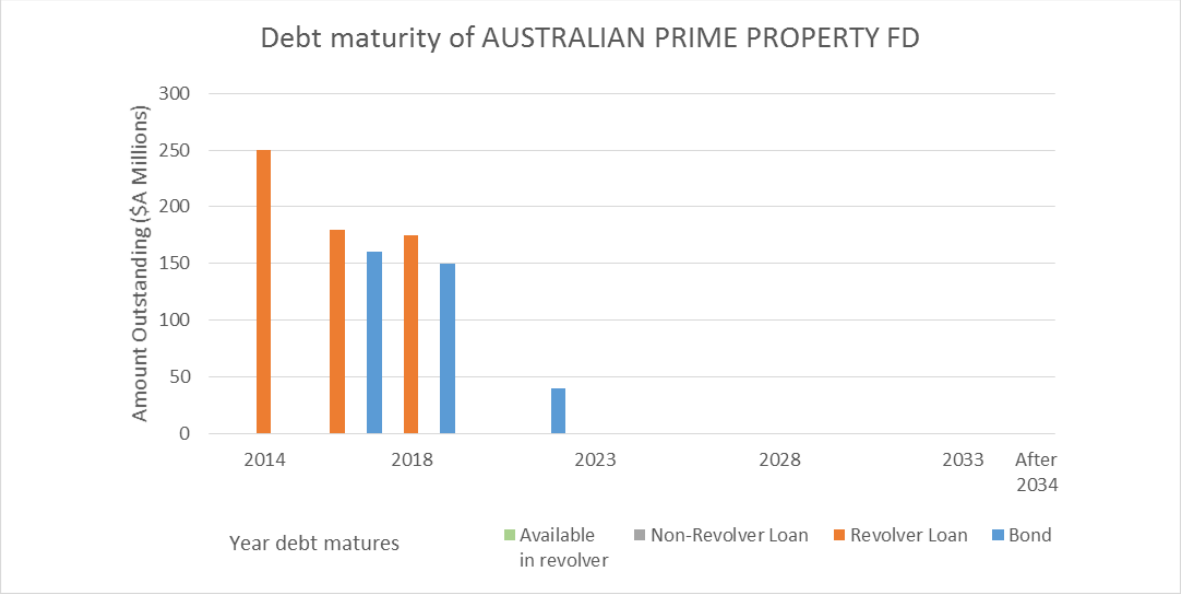




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 0 | 0 | 1 |
| Amount Outstanding ($A Mn) | 82.74 | 0.00 | 0.00 | 82.74 |
| Weighted average debt term | 25.00 | N/A | N/A | 25.00 |
| Simple average debt term | 25.00 | N/A | N/A | 25.00 |
| Weighted average time to maturity | 14.97 | N/A | N/A | 14.97 |
| Simple average time to maturity | 14.97 | N/A | N/A | 14.97 |

**Australian National University has an AA+ credit rating*

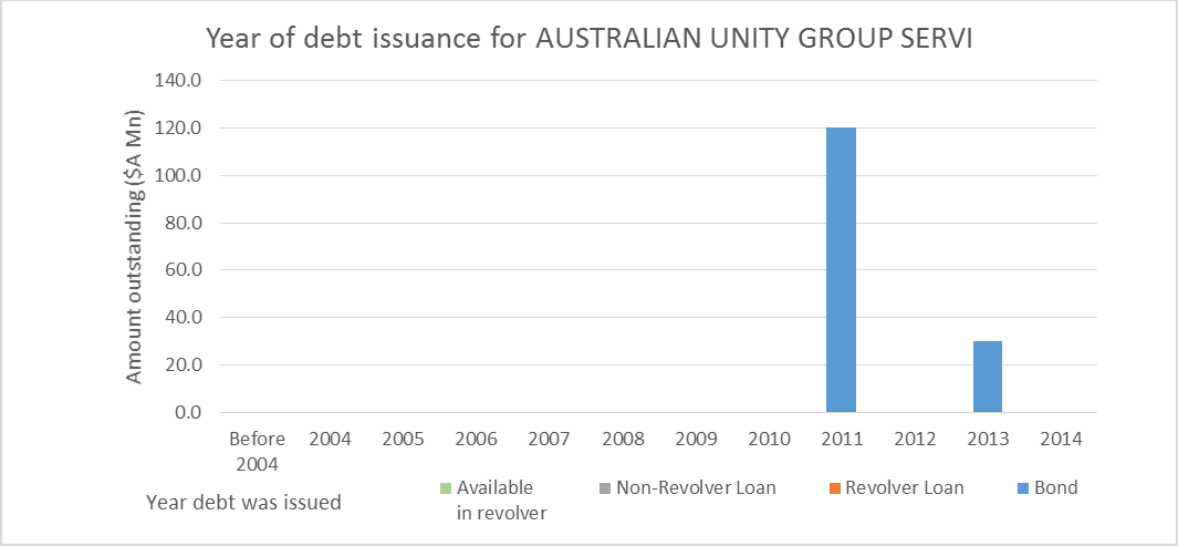
## A.1.20 AUSTRALIAN PRIME PROPERTY FUND RETAIL

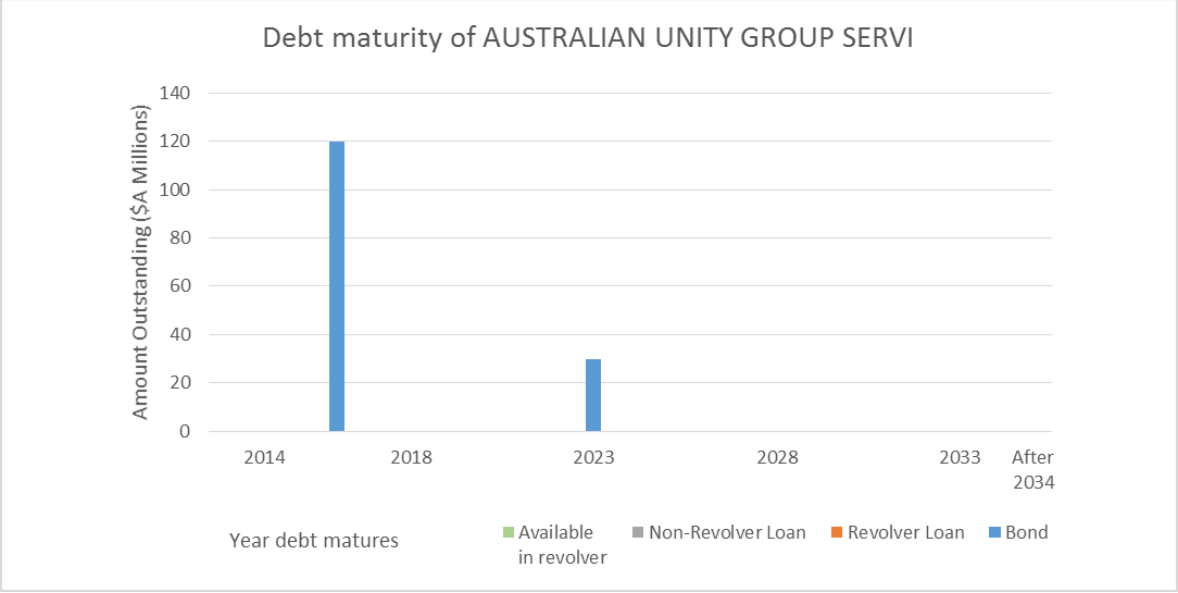



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 3 | 4 | 0 | 7 |
| Amount Outstanding ($A Mn) | 350.00 | 605.00 | 0.00 | 955.00 |
| Weighted average debt term | 6.43 | 3.55 | N/A | 4.61 |
| Simple average debt term | 7.33 | 3.47 | 0.00 | 5.12 |
| Weighted average time to maturity | 4.48 | 1.89 | N/A | 2.84 |
| Simple average time to maturity | 5.38 | 2.13 | 0.00 | 3.52 |

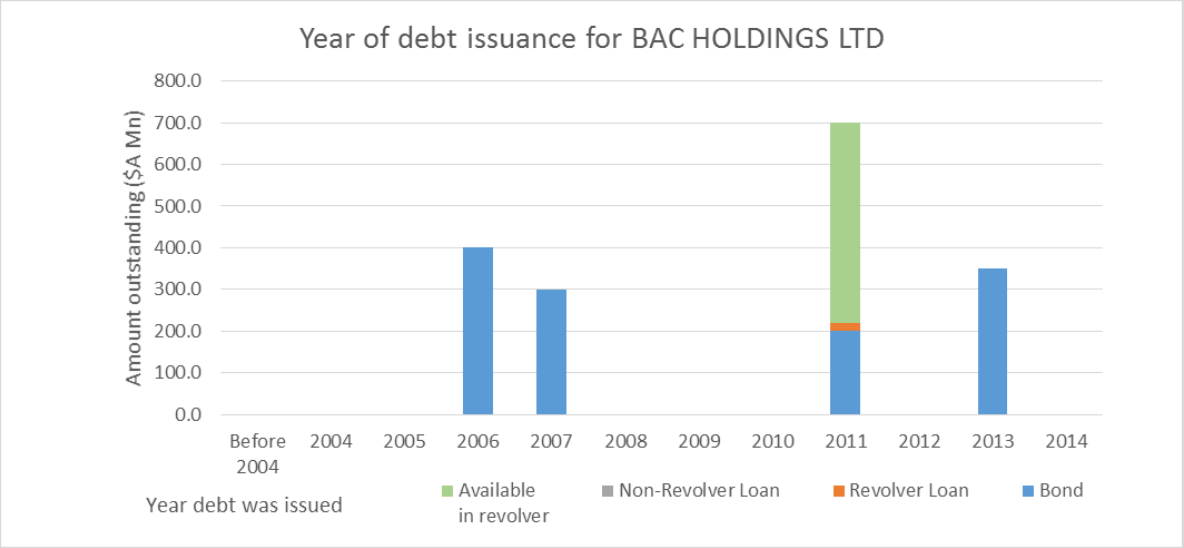
## A.1.21 AUSTRALIAN UNITY GROUP SERVICES PTY LTD

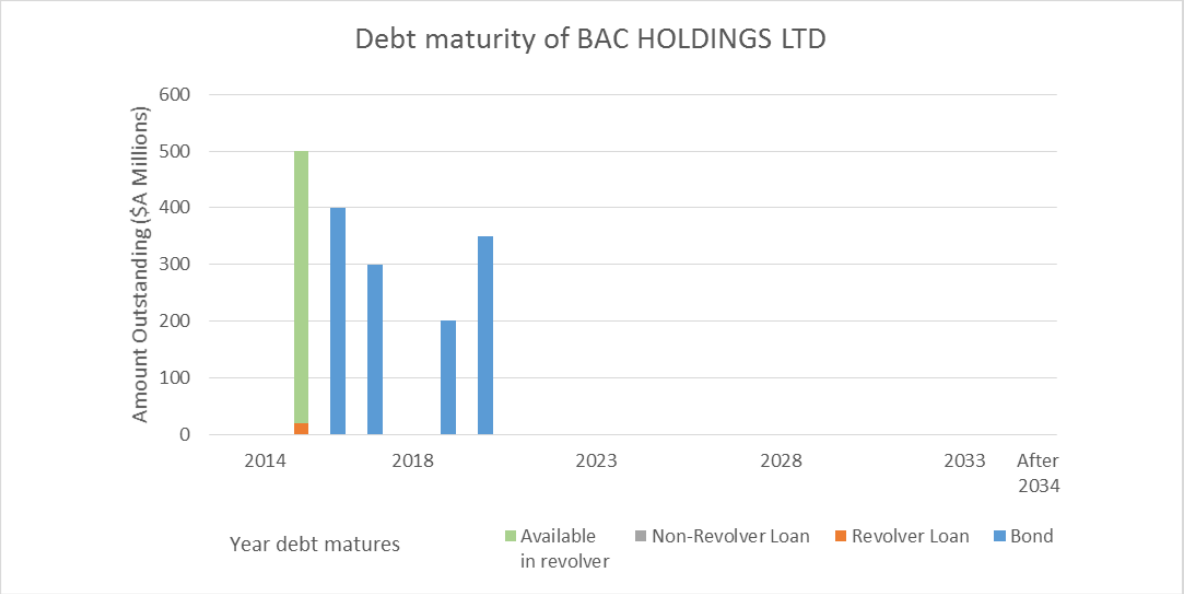



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 150.00 | 0.00 | 0.00 | 150.00 |
| Weighted average debt term | 6.00 | N/A | N/A | 6.00 |
| Simple average debt term | 7.50 | N/A | N/A | 7.50 |
| Weighted average time to maturity | 2.93 | N/A | N/A | 2.93 |
| Simple average time to maturity | 5.10 | N/A | N/A | 5.10 |

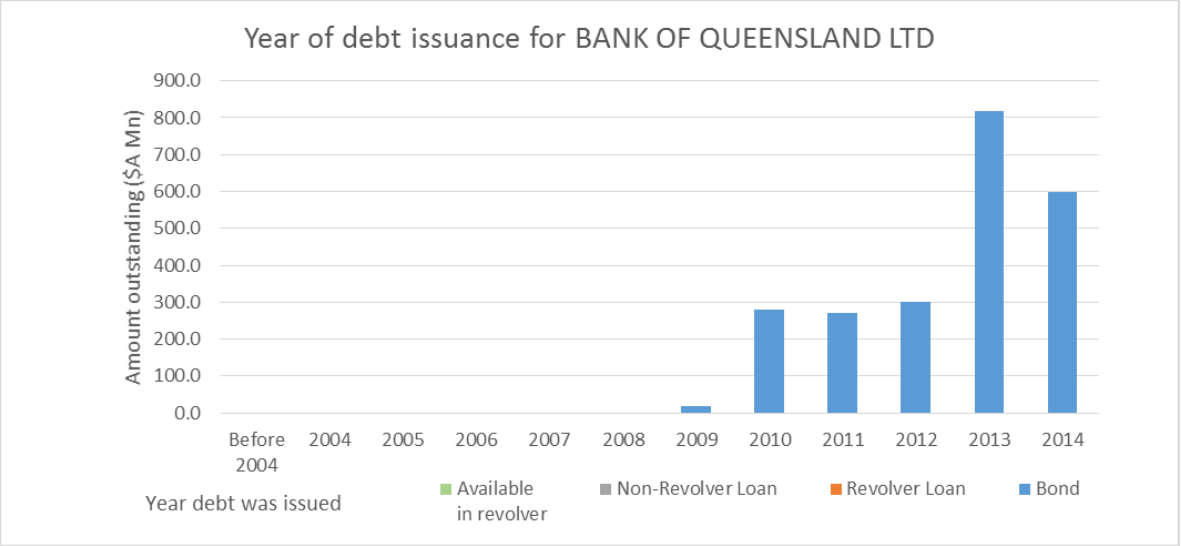
## A.1.22 BAC HOLDINGS LTD

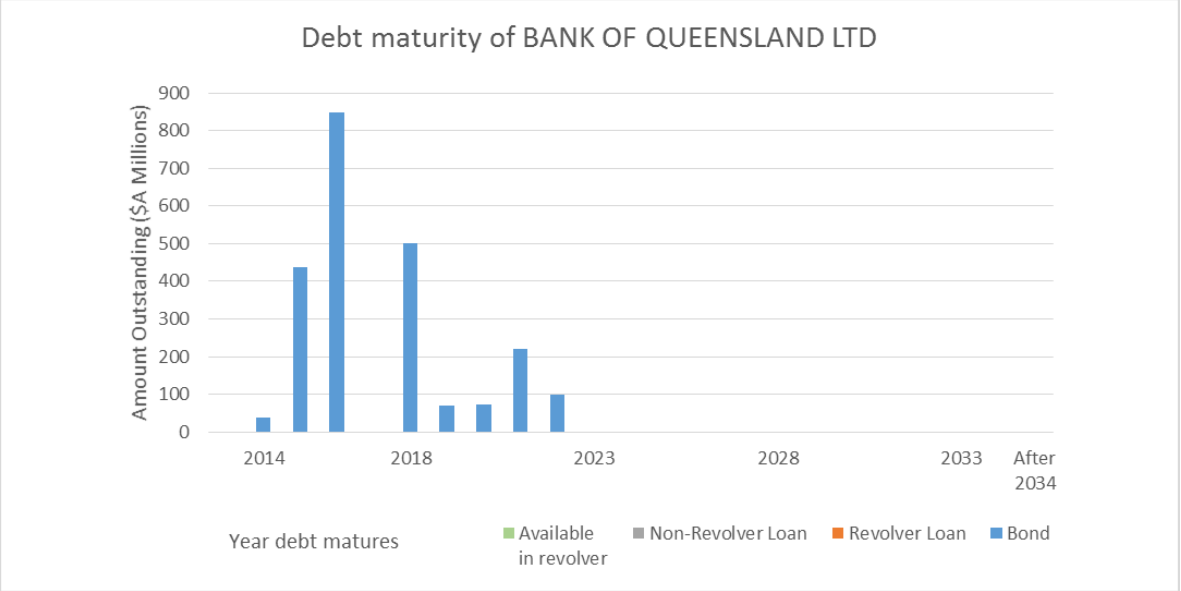



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 4 | 1 | 0 | 5 |
| Amount Outstanding ($A Mn) | 1,250.00 | 20.00 | 0.00 | 1,270.00 |
| Weighted average debt term | 8.88 | 4.00 | N/A | 8.81 |
| Simple average debt term | 8.82 | 4.00 | 0.00 | 7.85 |
| Weighted average time to maturity | 3.74 | 0.94 | N/A | 3.69 |
| Simple average time to maturity | 3.90 | 0.94 | 0.00 | 3.31 |

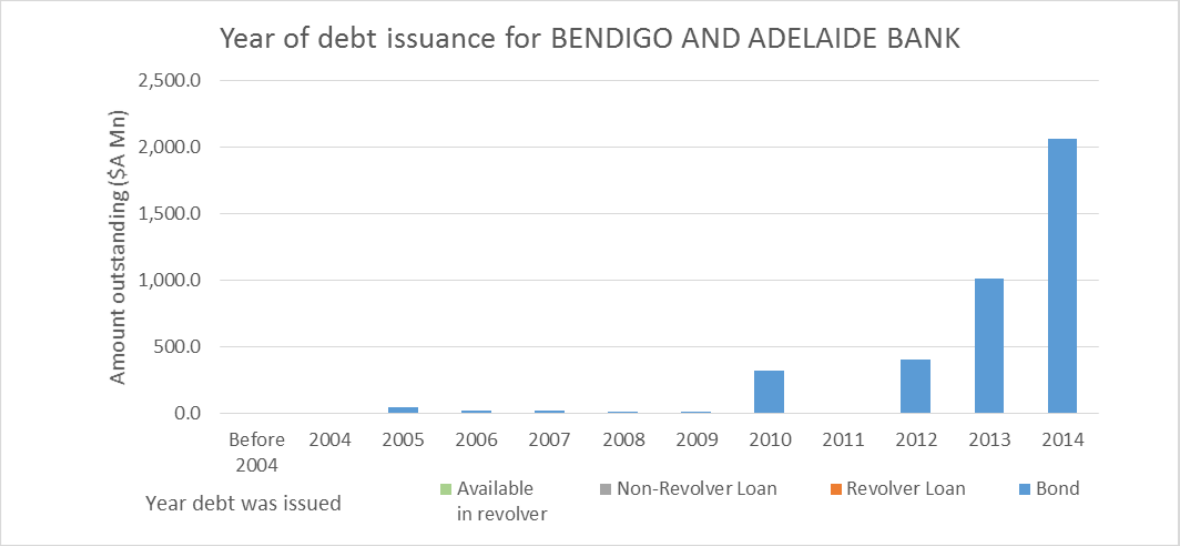
## A.1.23 BANK OF QUEENSLAND LTD

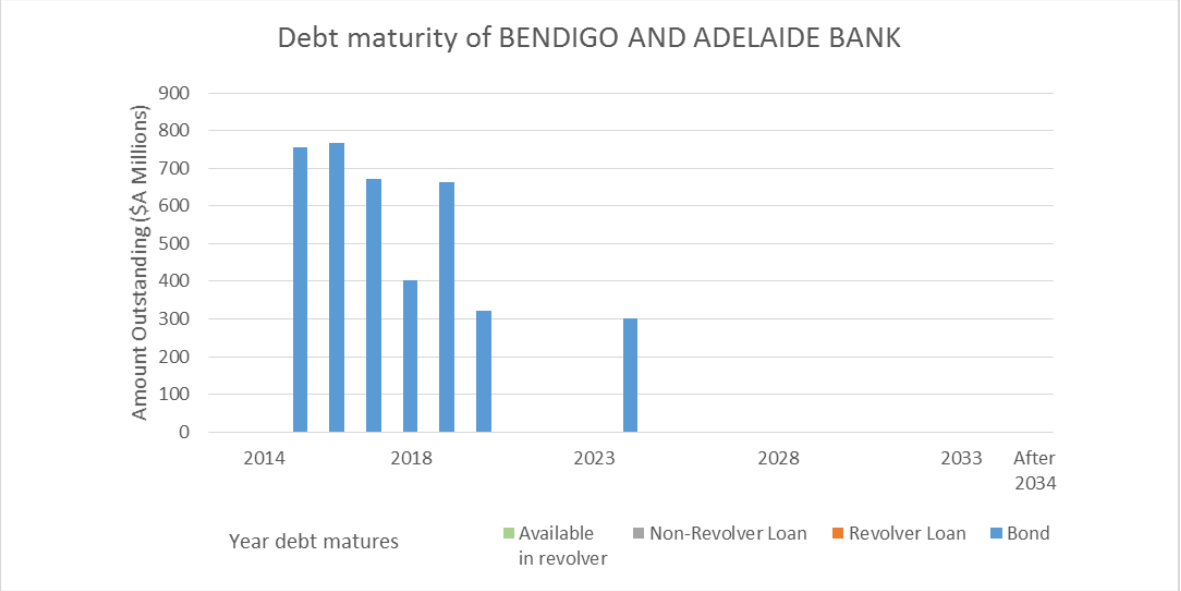



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 21 | 0 | 0 | 21 |
| Amount Outstanding ($A Mn) | 2,287.24 | 0.00 | 0.00 | 2,287.24 |
| Weighted average debt term | 4.66 | N/A | N/A | 4.66 |
| Simple average debt term | 5.68 | N/A | N/A | 5.68 |
| Weighted average time to maturity | 2.92 | N/A | N/A | 2.92 |
| Simple average time to maturity | 3.37 | N/A | N/A | 3.37 |

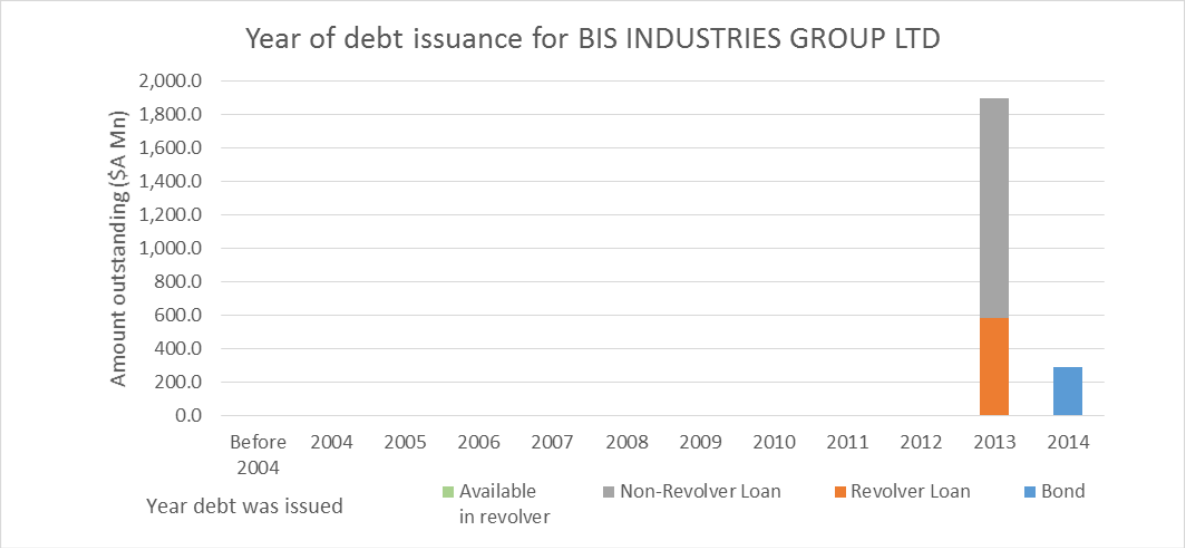
## A.1.24 BENDIGO & ADELAIDE BANK LTD

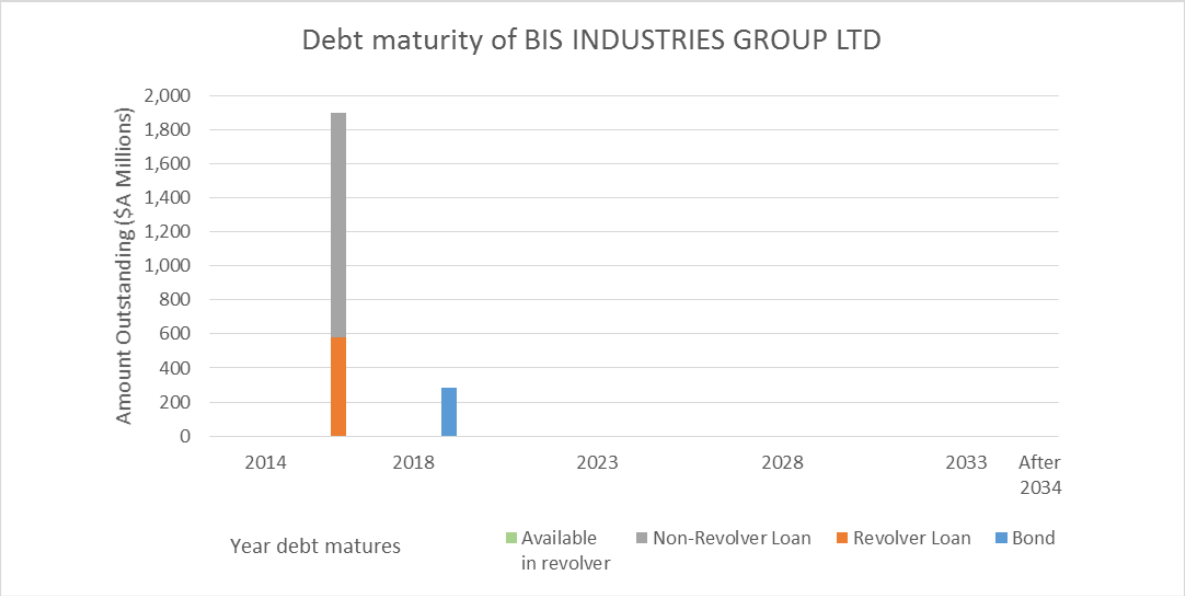



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 35 | 0 | 0 | 35 |
| Amount Outstanding ($A Mn) | 3,881.99 | 0.00 | 0.00 | 3,881.99 |
| Weighted average debt term | 4.67 | N/A | N/A | 4.67 |
| Simple average debt term | 7.29 | N/A | N/A | 7.29 |
| Weighted average time to maturity | 3.42 | N/A | N/A | 3.42 |
| Simple average time to maturity | 2.91 | N/A | N/A | 2.99 |

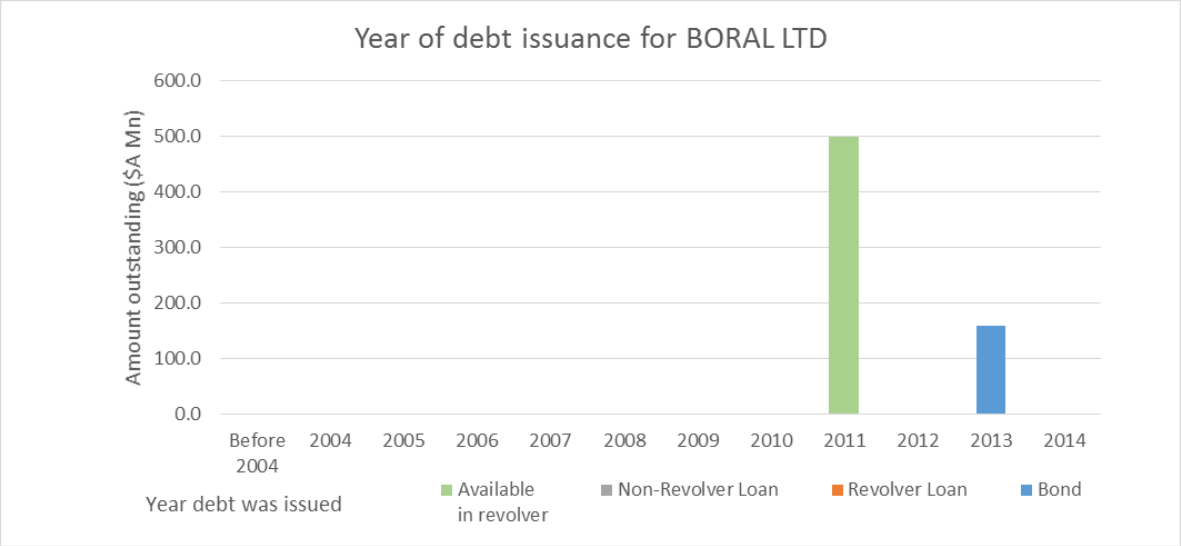
## A.1.25 BIS INDUSTRIES GROUP LTD

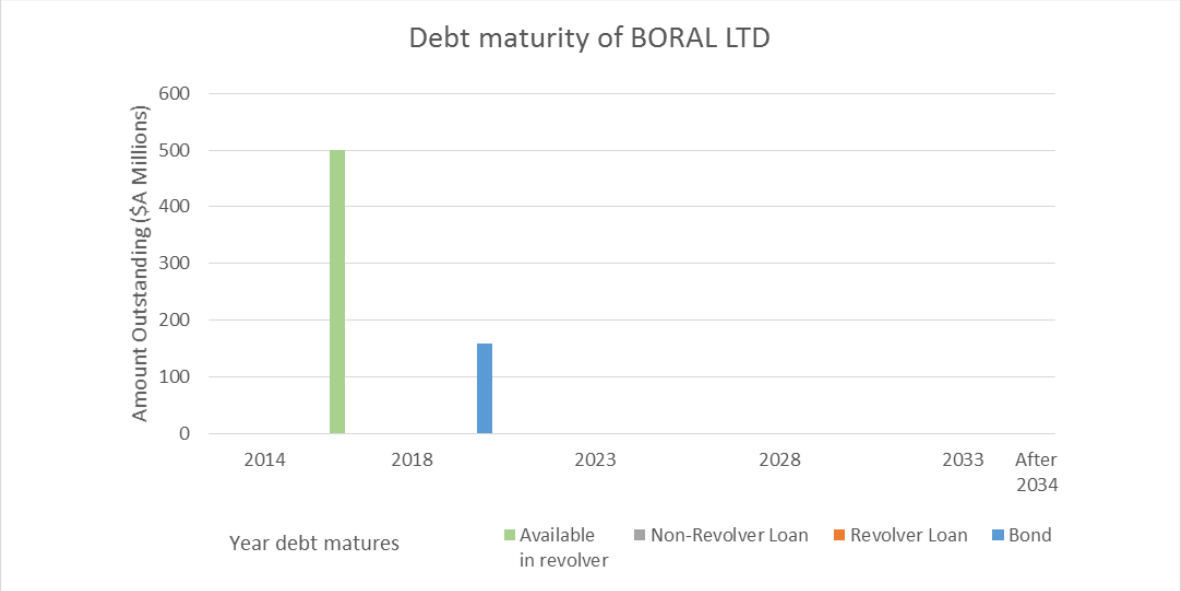



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 4 | 2 | 7 |
| Amount Outstanding ($A Mn) | 286.57 | 580.00 | 1,320.00 | 2,186.57 |
| Weighted average debt term | 5.01 | 3.02 | 3.02 | 3.28 |
| Simple average debt term | 5.01 | 3.02 | 1.51 | 3.30 |
| Weighted average time to maturity | 4.45 | 1.84 | 1.84 | 2.18 |
| Simple average time to maturity | 4.45 | 1.84 | 0.92 | 2.21 |

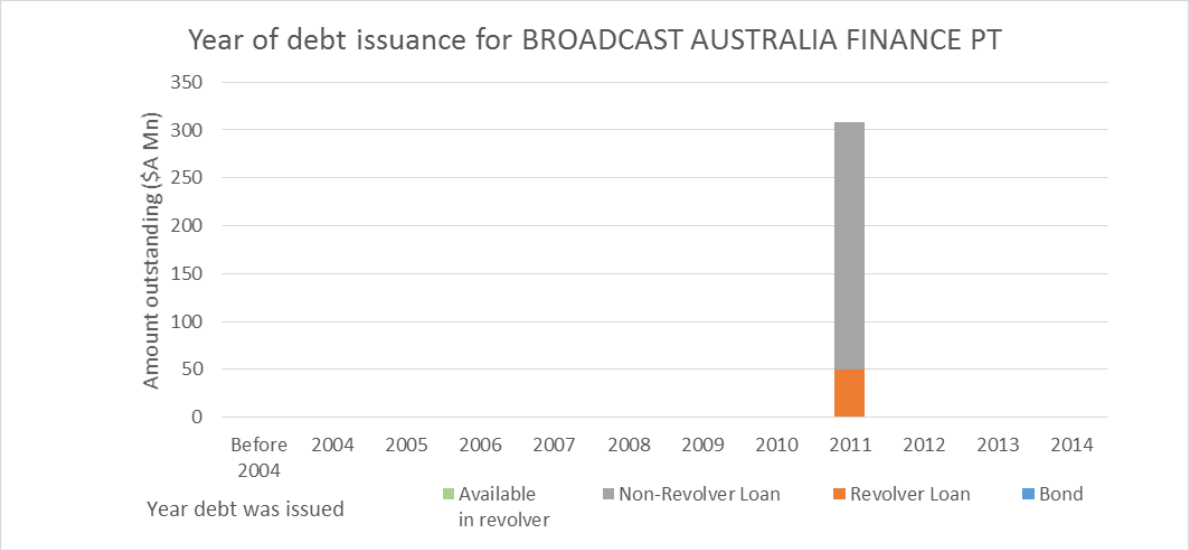
## A.1.26 BORAL LTD

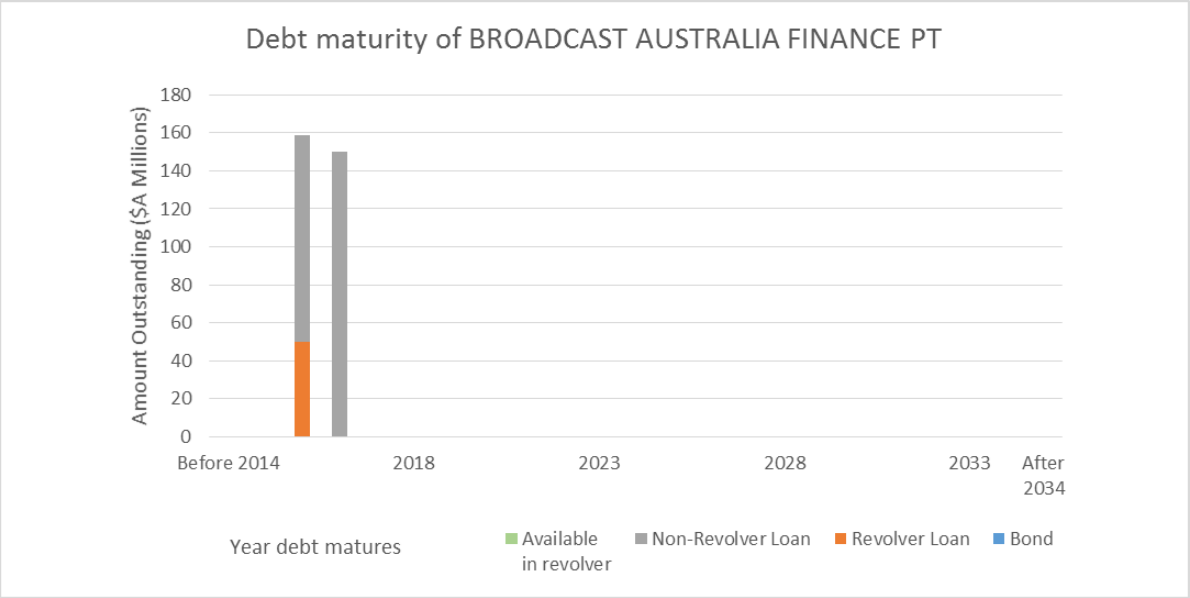



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 1 | 0 | 2 |
| Amount Outstanding ($A Mn) | 157.78 | 0.00 | 0.00 | 157.78 |
| Weighted average debt term | 7.00 | N/A | N/A | 7.00 |
| Simple average debt term | 7.00 | 5.00 | 0.00 | 6.00 |
| Weighted average time to maturity | 5.34 | N/A | N/A | 5.34 |
| Simple average time to maturity | 5.34 | 2.09 | 0.00 | 3.72 |

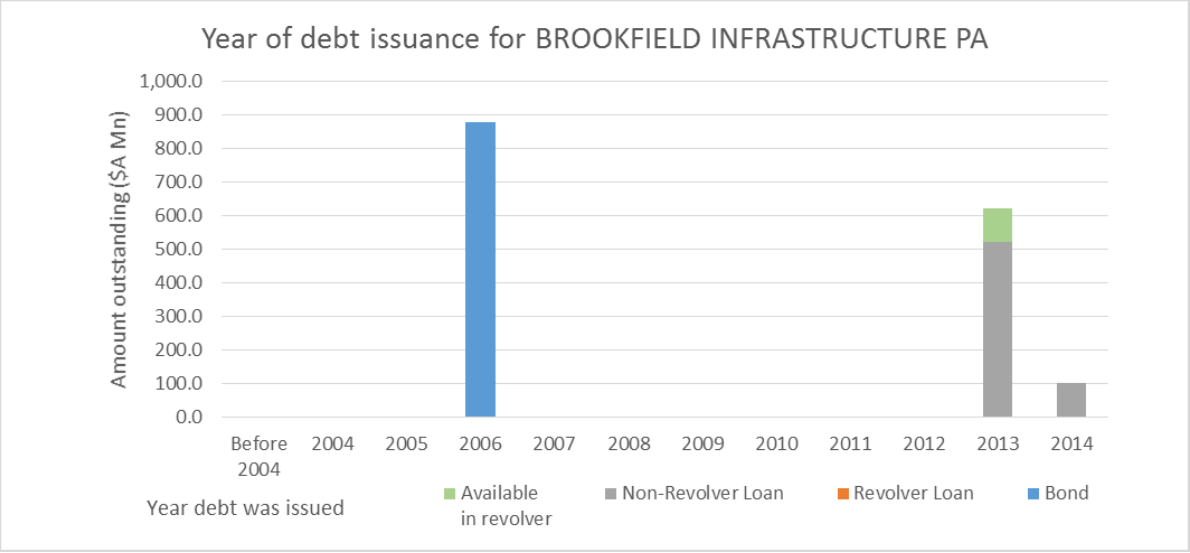
## A.1.27 BROADCAST AUSTRALIA FINANCE PTY LTD

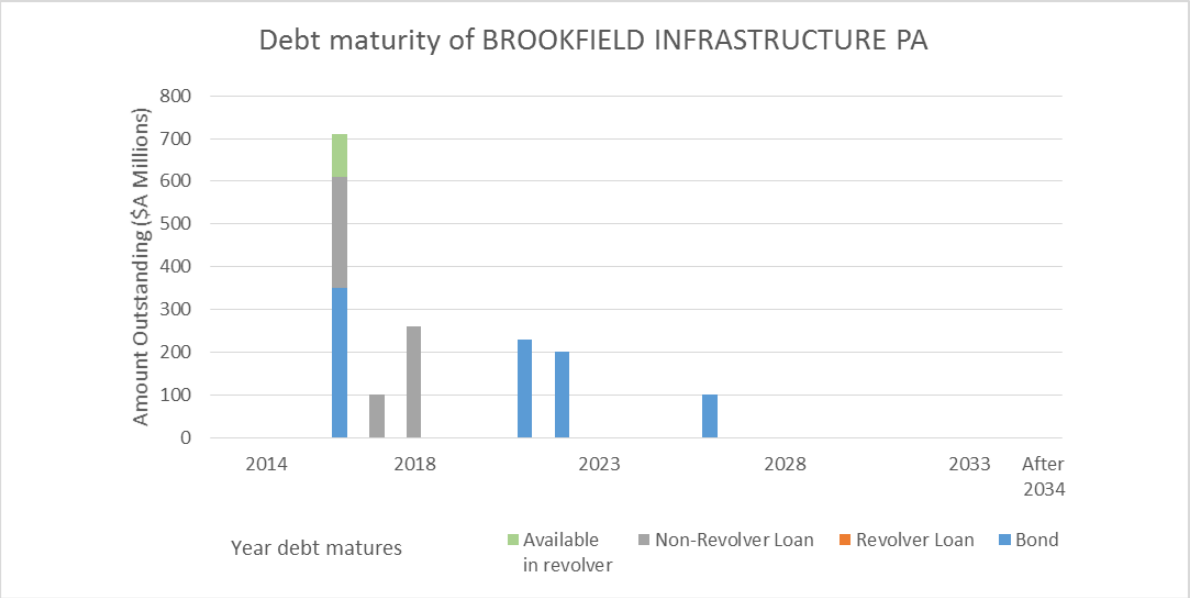



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 1 | 2 | 4 |
| Amount Outstanding ($A Mn) | 0.00 | 50.00 | 258.50 | 308.50 |
| Weighted average debt term | N/A | 4.01 | 4.60 | 4.50 |
| Simple average debt term | 12.00 | 4.01 | 9.03 | 6.26 |
| Weighted average time to maturity | N/A | 0.88 | 1.46 | 1.37 |
| Simple average time to maturity | 4.72 | 0.88 | 2.77 | 2.09 |

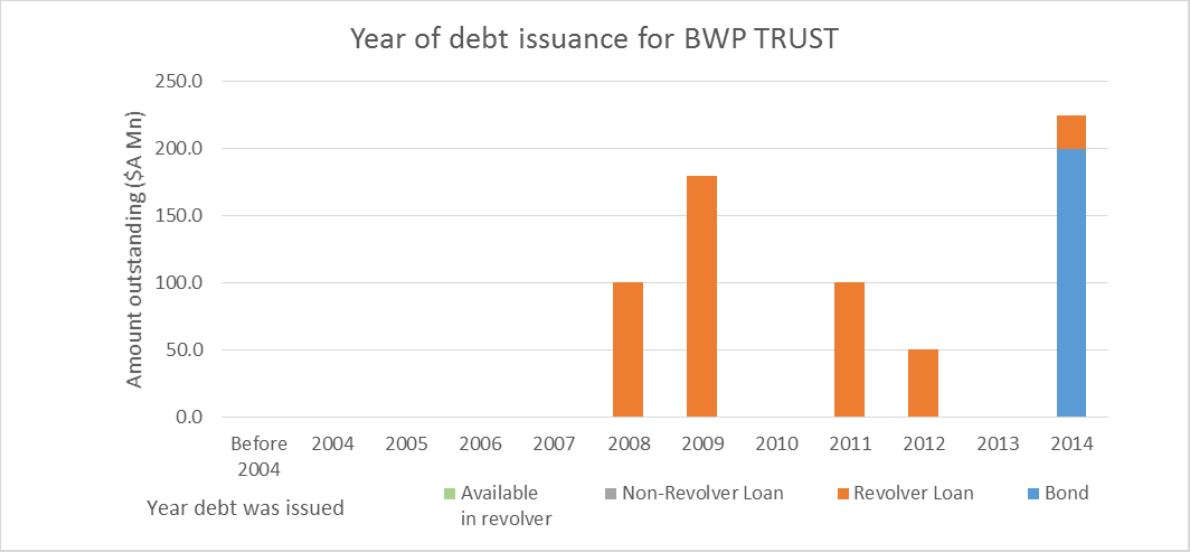
## A.1.28 BROOKFIELD INFRASTRUCTURE PARTNERS LP

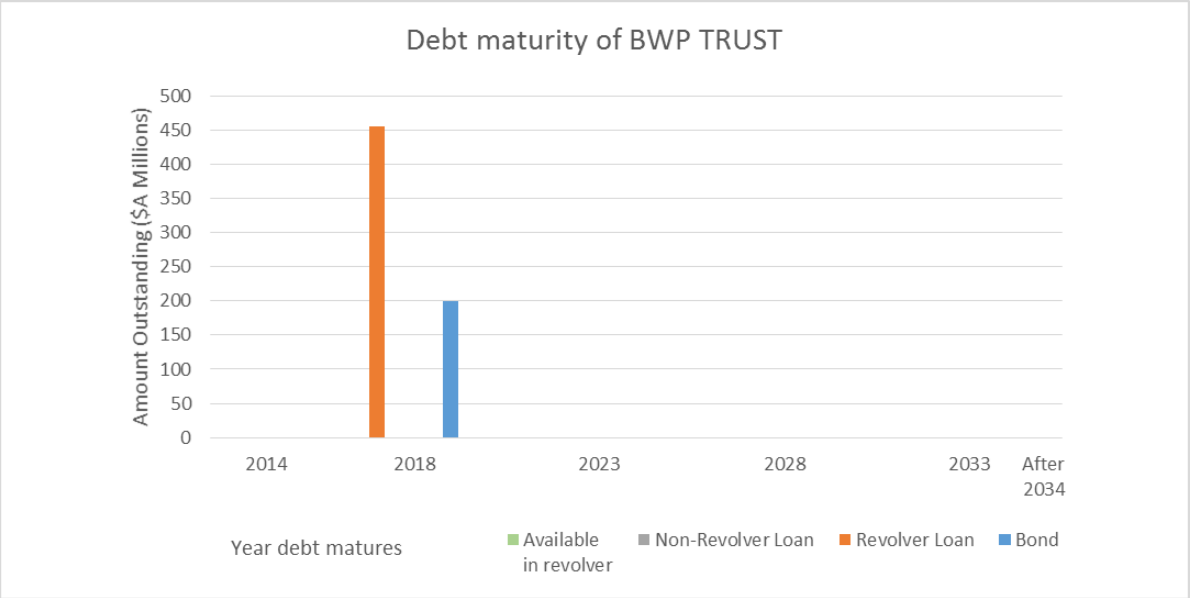



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 5 | 1 | 3 | 9 |
| Amount Outstanding ($A Mn) | 880.00 | 0.00 | 620.00 | 1,500.00 |
| Weighted average debt term | 13.81 | N/A | 3.84 | 9.69 |
| Simple average debt term | 14.20 | 3.00 | 11.00 | 9.44 |
| Weighted average time to maturity | 5.56 | N/A | 2.43 | 4.27 |
| Simple average time to maturity | 5.94 | 1.38 | 7.48 | 4.28 |

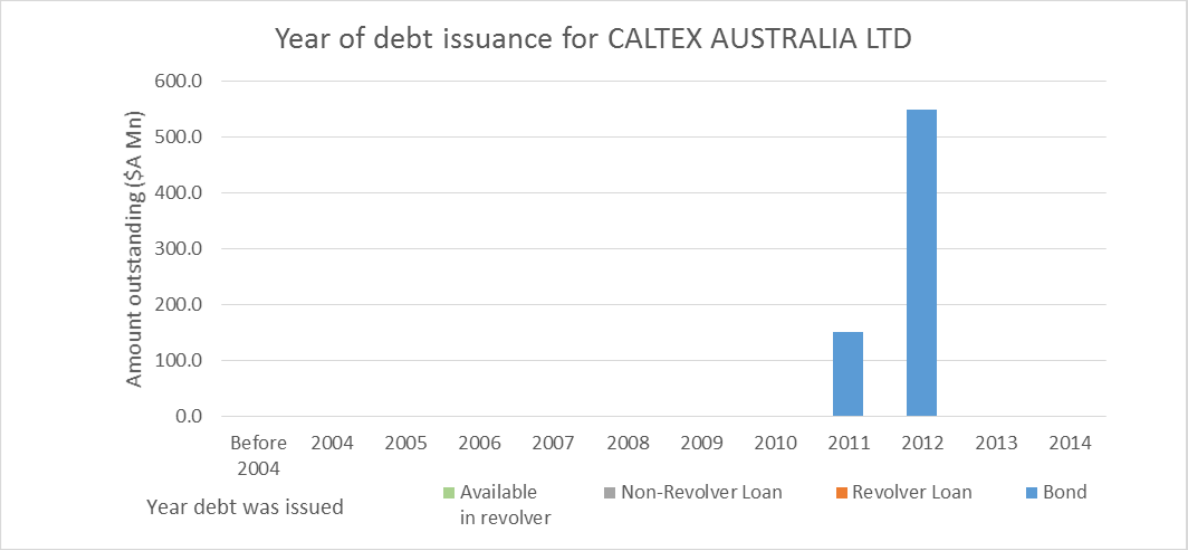
## A.1.29 BWP TRUST

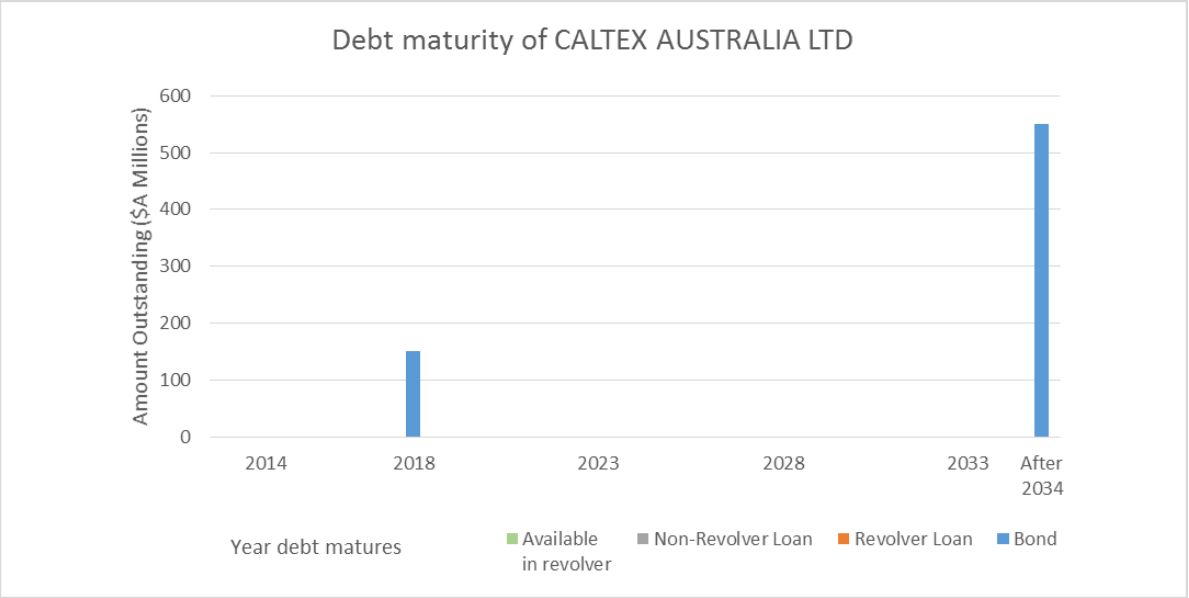



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 6 | 0 | 7 |
| Amount Outstanding ($A Mn) | 200.00 | 455.00 | 0.00 | 655.00 |
| Weighted average debt term | 5.00 | 7.17 | N/A | 6.50 |
| Simple average debt term | 5.00 | 6.57 | 0.00 | 6.35 |
| Weighted average time to maturity | 4.60 | 2.77 | N/A | 3.33 |
| Simple average time to maturity | 4.60 | 2.75 | 0.00 | 3.01 |

## A.1.30 CALTEX AUSTRALIA LTD

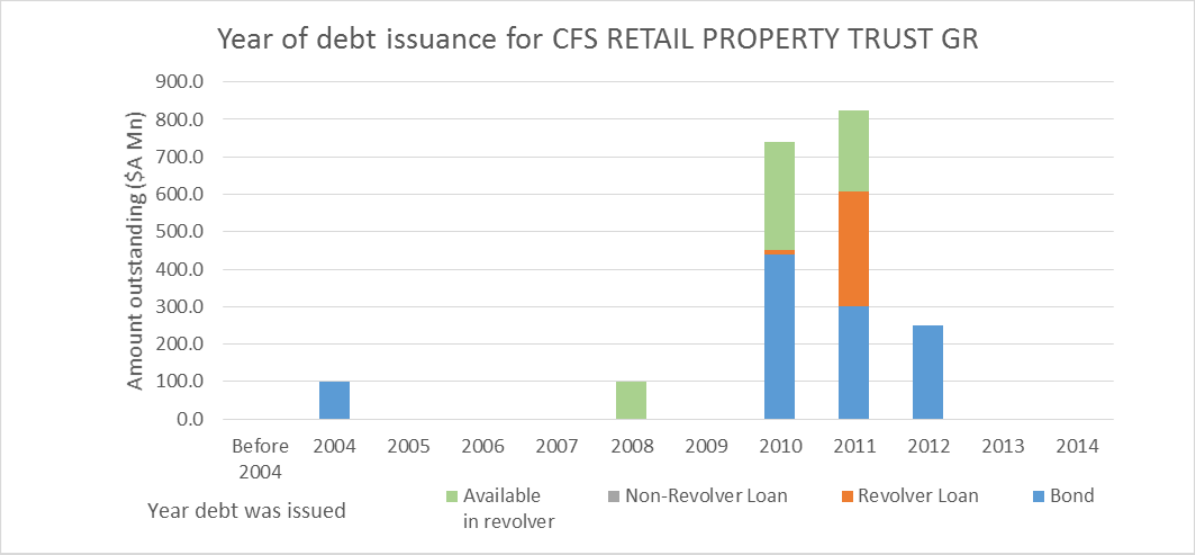


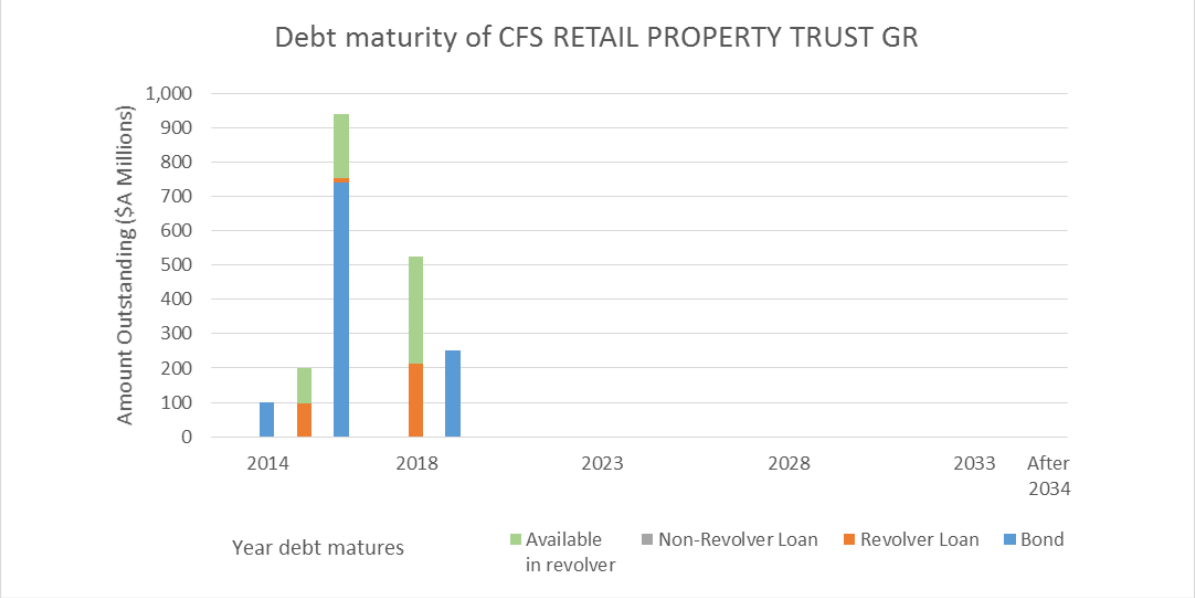




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 700.00 | 0.00 | 0.00 | 700.00 |
| Weighted average debt term | 21.17 | N/A | N/A | 21.17 |
| Simple average debt term | 16.02 | N/A | N/A | 16.02 |
| Weighted average time to maturity | 18.87 | N/A | N/A | 18.87 |
| Simple average time to maturity | 13.50 | N/A | N/A | 13.50 |

**One bond due in 2037 with A$ 550 million outstanding.*

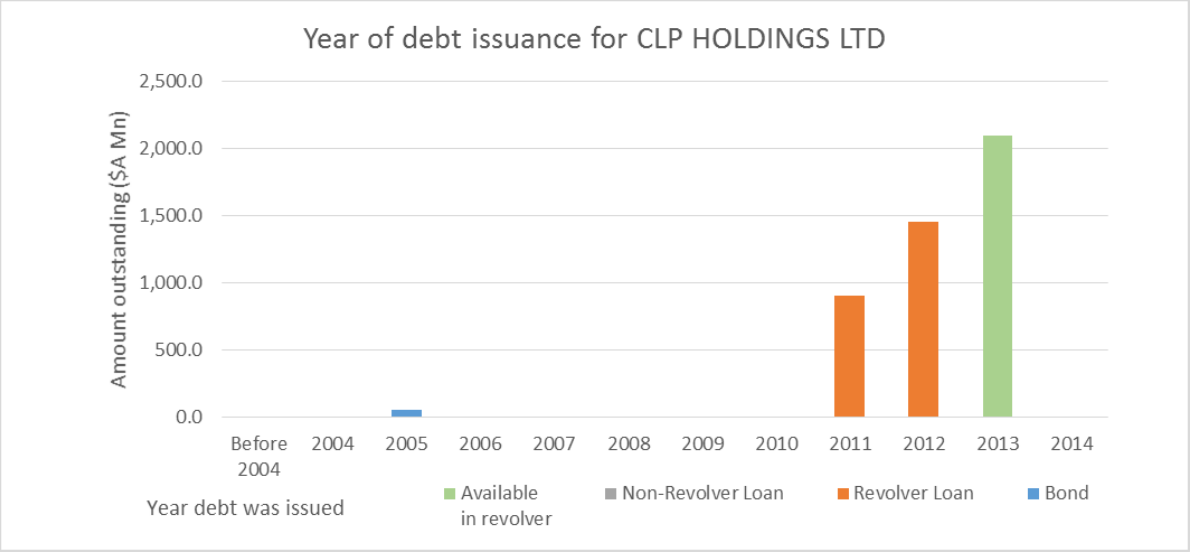
## A.1.31 CFS RETAIL PROPERTY TRUST GROUP

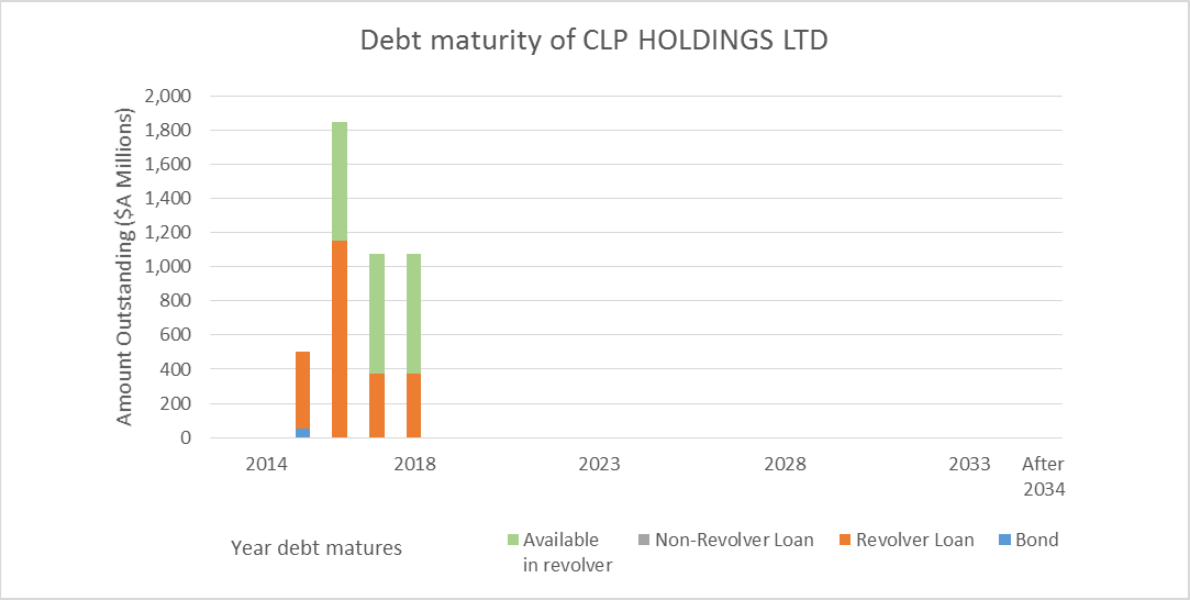



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 4 | 7 | 0 | 11 |
| Amount Outstanding ($A Mn) | 1,090.00 | 319.00 | 0.00 | 1,409.00 |
| Weighted average debt term | 6.12 | 6.15 | N/A | 6.13 |
| Simple average debt term | 6.87 | 6.37 | 0.00 | 6.55 |
| Weighted average time to maturity | 2.29 | 2.79 | N/A | 2.40 |
| Simple average time to maturity | 2.14 | 2.41 | 0.00 | 2.32 |

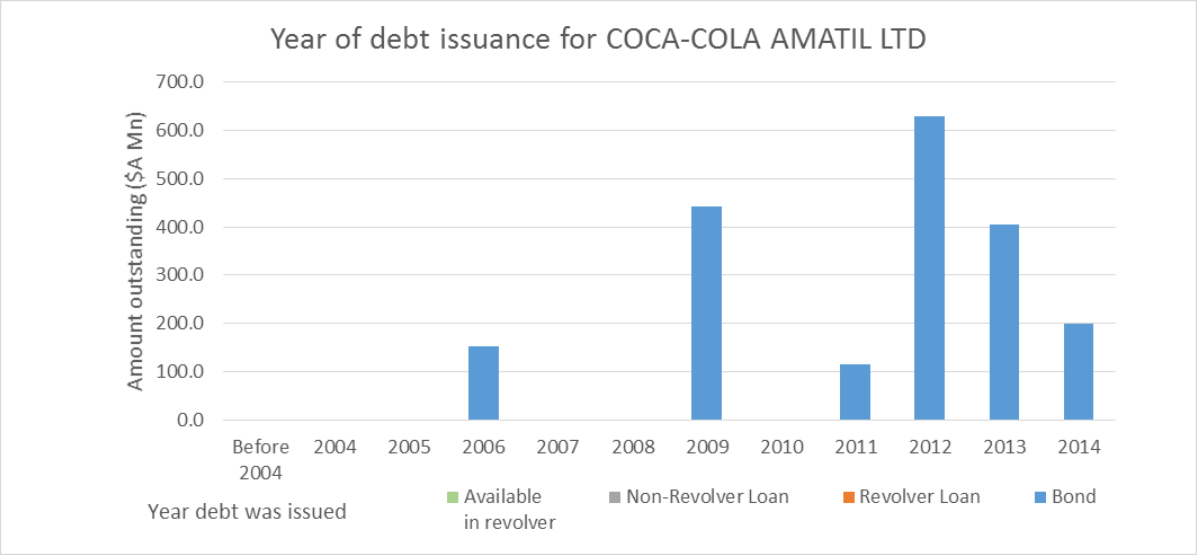
## A.1.32 CLP HOLDINGS LTD

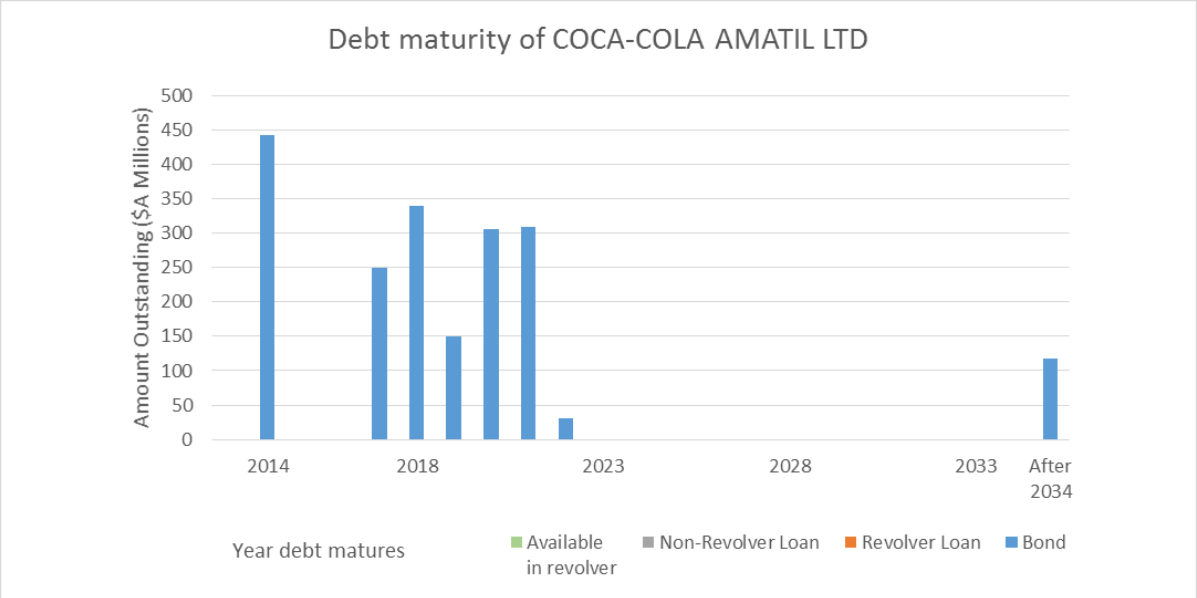



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 10 | 0 | 11 |
| Amount Outstanding ($A Mn) | 50.00 | 2,349.92 | 0.00 | 2,399.92 |
| Weighted average debt term | 10.00 | 4.41 | N/A | 4.53 |
| Simple average debt term | 10.00 | 4.34 | 0.00 | 4.85 |
| Weighted average time to maturity | 1.07 | 1.84 | N/A | 1.82 |
| Simple average time to maturity | 1.07 | 2.64 | 0.00 | 2.50 |

## A.1.33 COCA-COLA AMATIL LTD

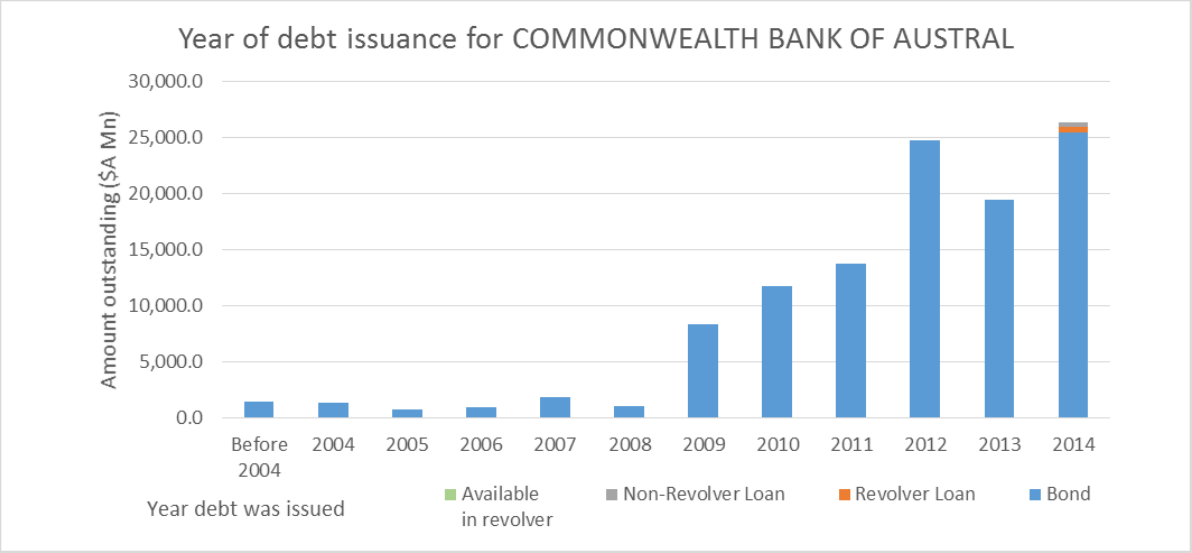


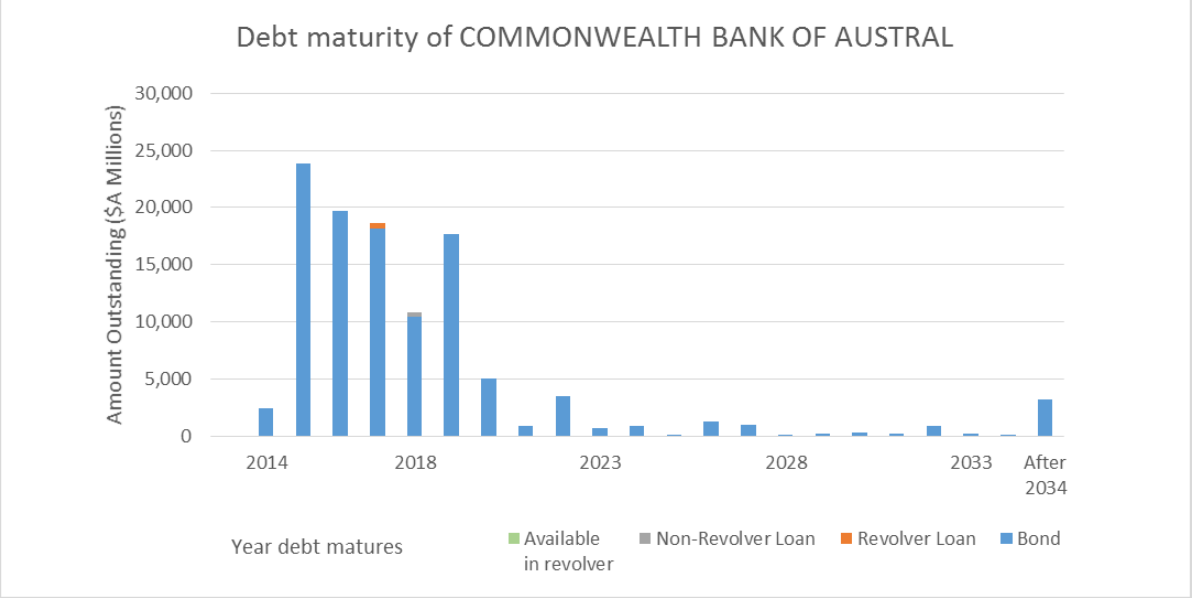




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 15 | 0 | 0 | 15 |
| Amount Outstanding ($A Mn) | 1,944.60 | 0.00 | 0.00 | 1,944.60 |
| Weighted average debt term | 7.78 | N/A | N/A | 7.78 |
| Simple average debt term | 9.20 | N/A | N/A | 9.20 |
| Weighted average time to maturity | 4.75 | N/A | N/A | 4.75 |
| Simple average time to maturity | 6.22 | N/A | N/A | 6.22 |

**One bond due in 2036 with A$ 117.95 million outstanding.*

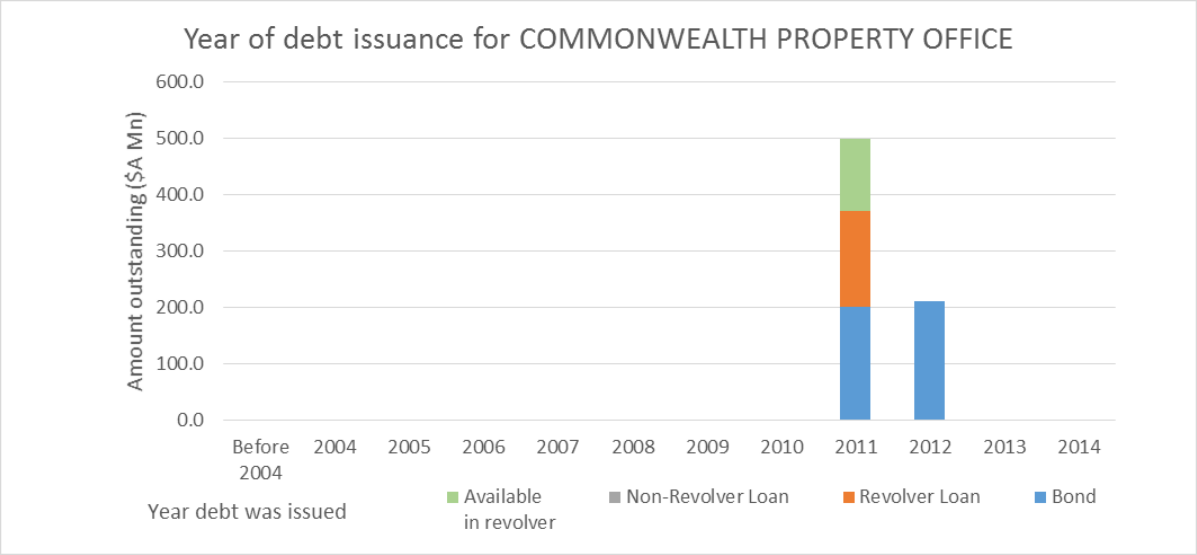
## A.1.34 COMMONWEALTH BANK OF AUSTRALIA

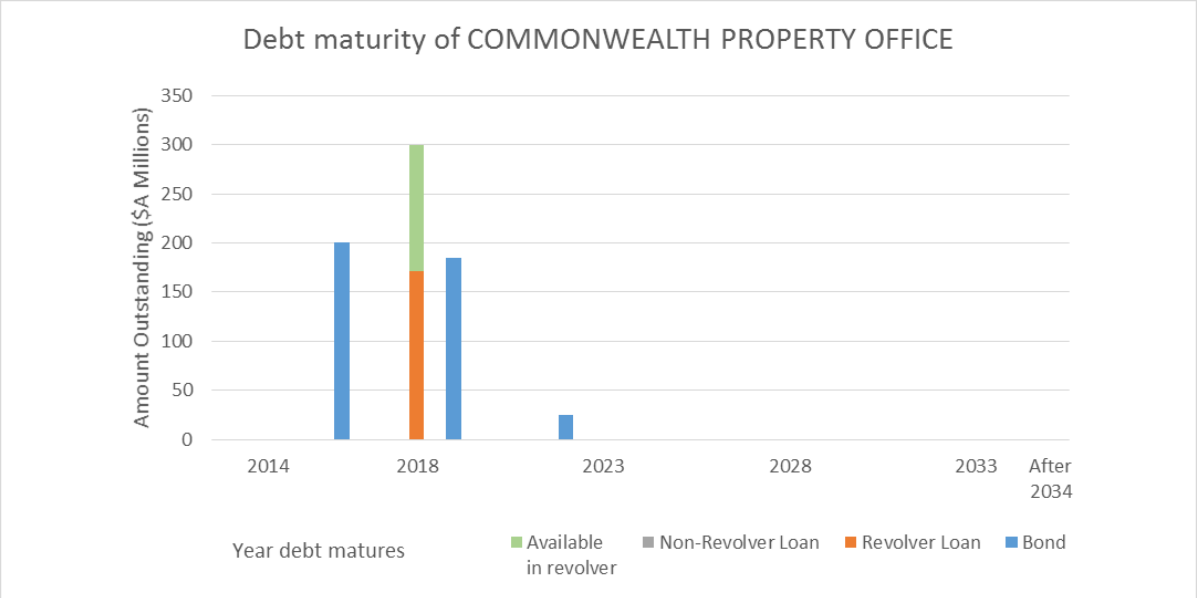



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 915 | 1 | 1 | 917 |
| Amount Outstanding ($A Mn) | 110,576.28 | 500.00 | 350.00 | 111,426.28 |
| Weighted average debt term | 6.64 | 2.98 | 4.00 | 6.62 |
| Simple average debt term | 11.81 | 2.98 | 4.00 | 11.79 |
| Weighted average time to maturity | 3.89 | 2.97 | 3.68 | 3.89 |
| Simple average time to maturity | 7.06 | 2.97 | 3.68 | 7.09 |

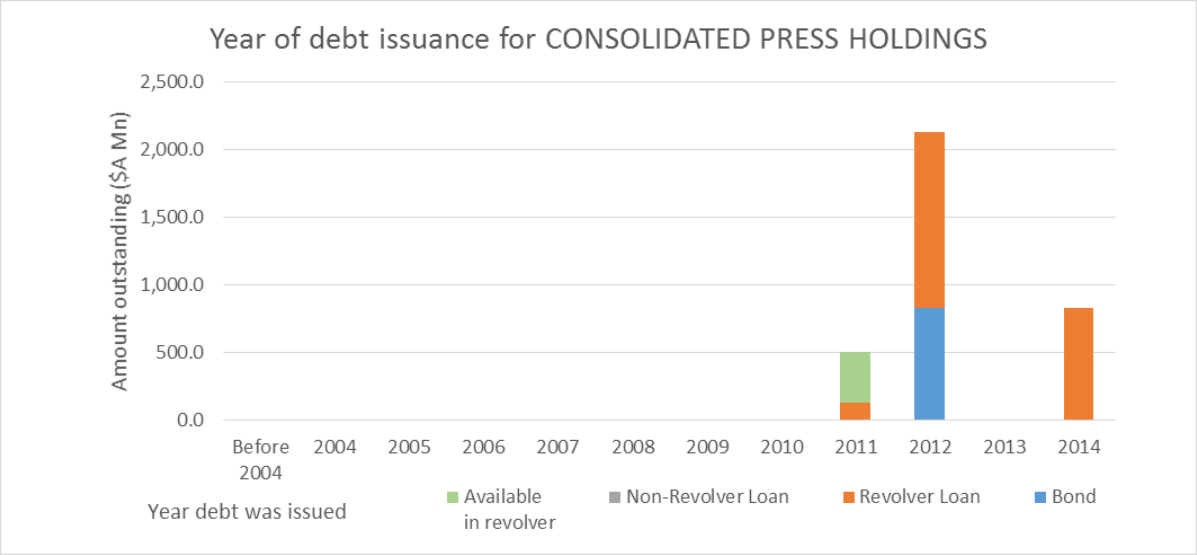
## A.1.35 COMMONWEALTH PROPERTY OFFICE FUND

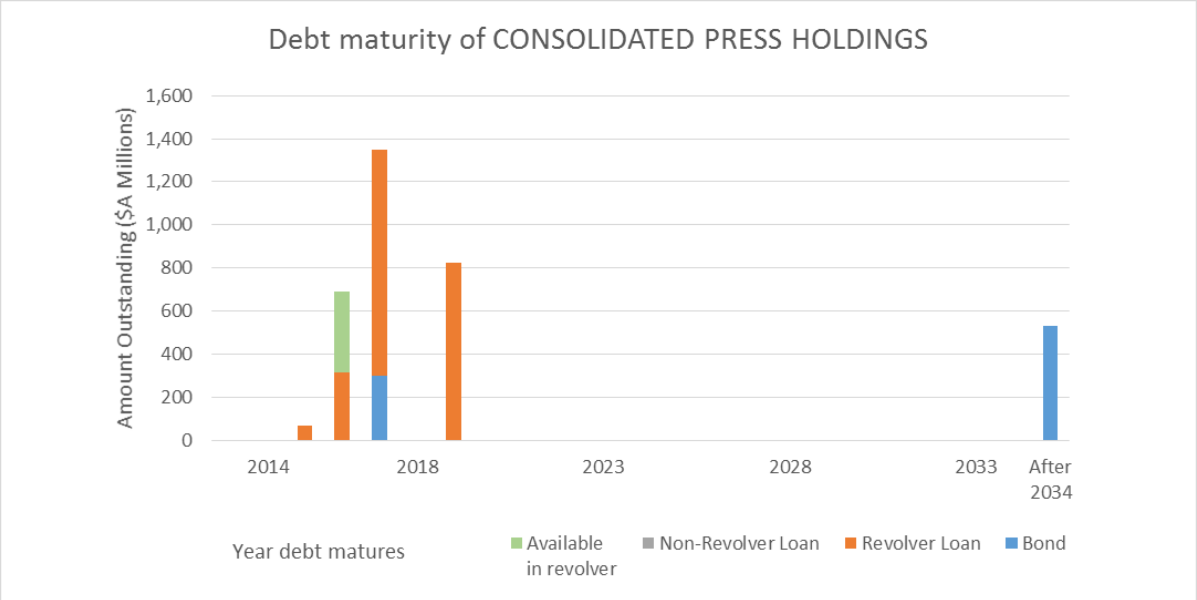



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 3 | 1 | 0 | 4 |
| Amount Outstanding ($A Mn) | 410.00 | 171.50 | 0.00 | 581.50 |
| Weighted average debt term | 6.21 | 7.24 | N/A | 6.51 |
| Simple average debt term | 7.33 | 7.24 | 0.00 | 7.31 |
| Weighted average time to maturity | 3.50 | 3.53 | N/A | 3.51 |
| Simple average time to maturity | 4.90 | 3.53 | 0.00 | 4.55 |

## A.1.36 CONSOLIDATED PRESS HOLDINGS LTD

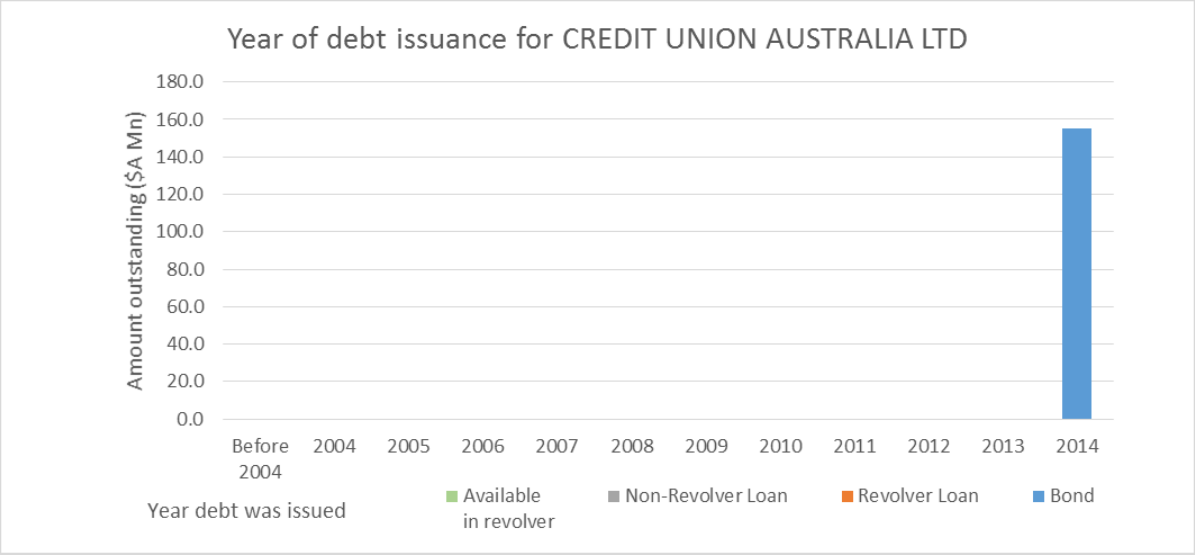


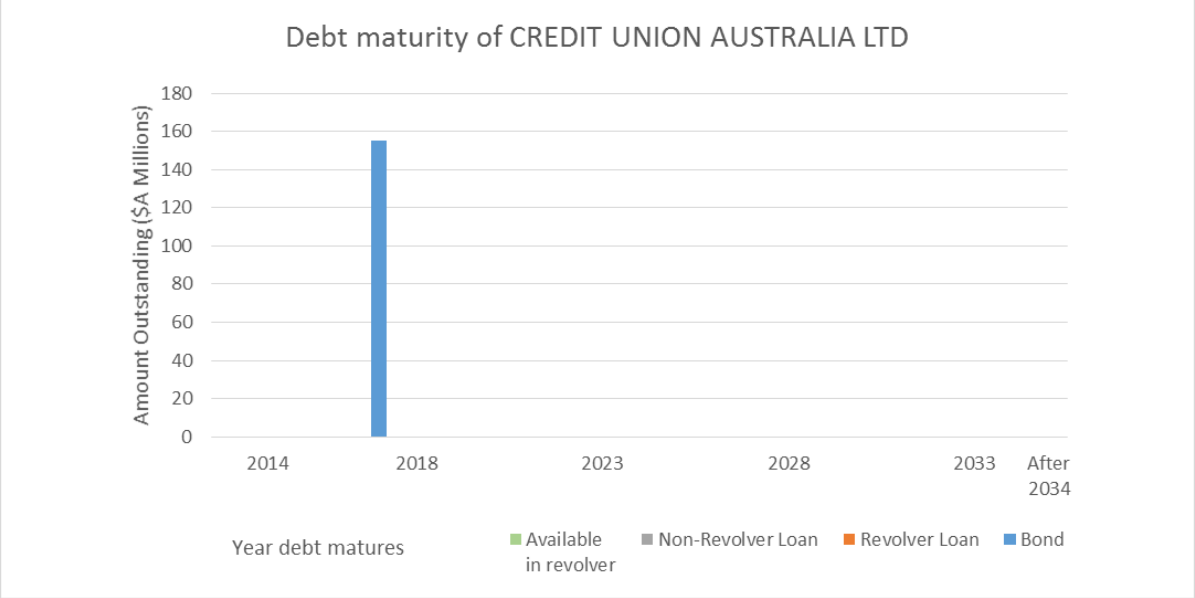




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 11 | 0 | 13 |
| Amount Outstanding ($A Mn) | 831.97 | 2,255.67 | 0.00 | 3,087.64 |
| Weighted average debt term | 40.17 | 4.89 | N/A | 14.40 |
| Simple average debt term | 32.50 | 4.83 | 0.00 | 9.09 |
| Weighted average time to maturity | 38.01 | 3.47 | N/A | 12.78 |
| Simple average time to maturity | 30.32 | 2.84 | 0.00 | 7.07 |

**One bond due in 2072 with A$ 531.97 million outstanding.*

## A.1.37 CREDIT UNION AUSTRALIA LTD

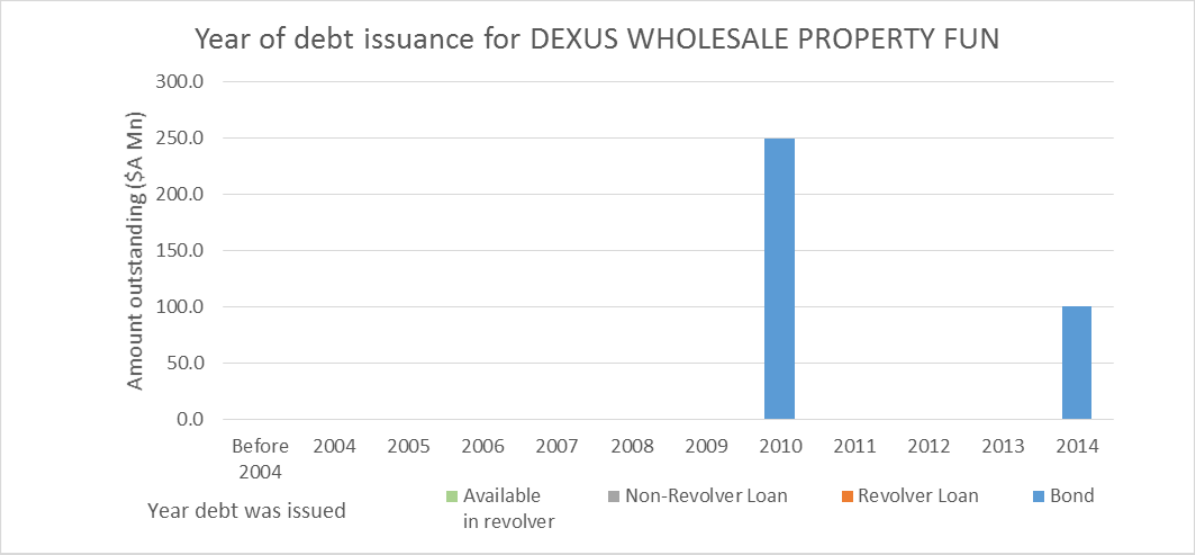


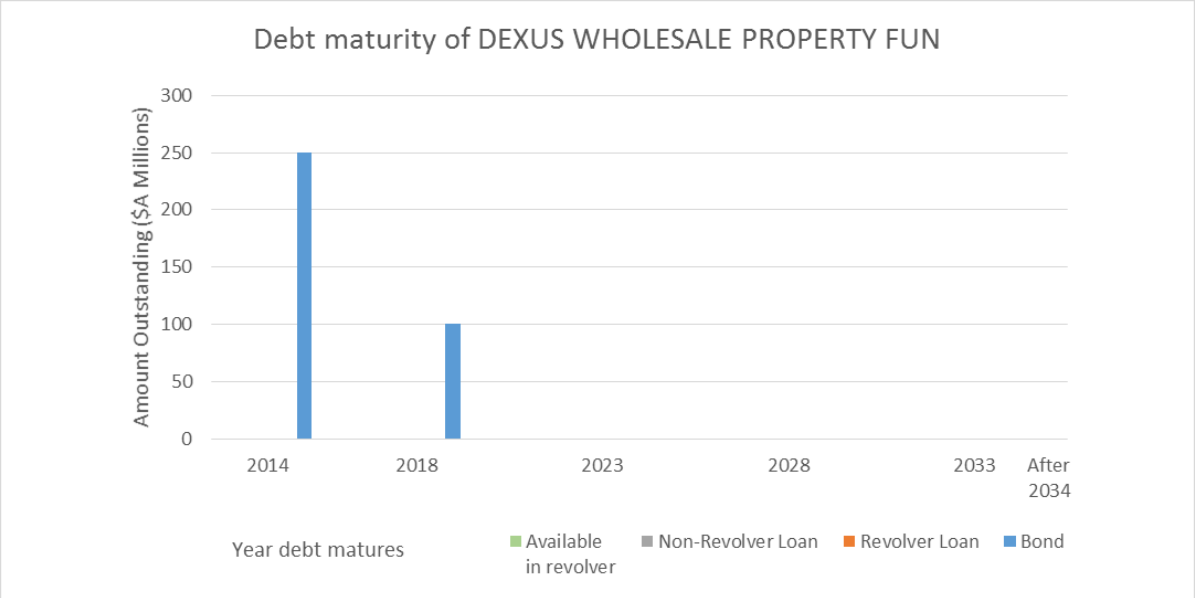




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 155.00 | 0.00 | 0.00 | 155.00 |
| Weighted average debt term | 3.08 | N/A | N/A | 3.08 |
| Simple average debt term | 3.13 | N/A | N/A | 3.13 |
| Weighted average time to maturity | 2.66 | N/A | N/A | 2.66 |
| Simple average time to maturity | 2.79 | N/A | N/A | 2.79 |

**There are actually two debts due 9 months apart – one bond issued on 20 Mar 2014 with A$105 Mn maturing on 20 Mar 2017, and one bond issued on 22 Sep 2014 with A$50 Mn maturing on 22 Dec 2017.*

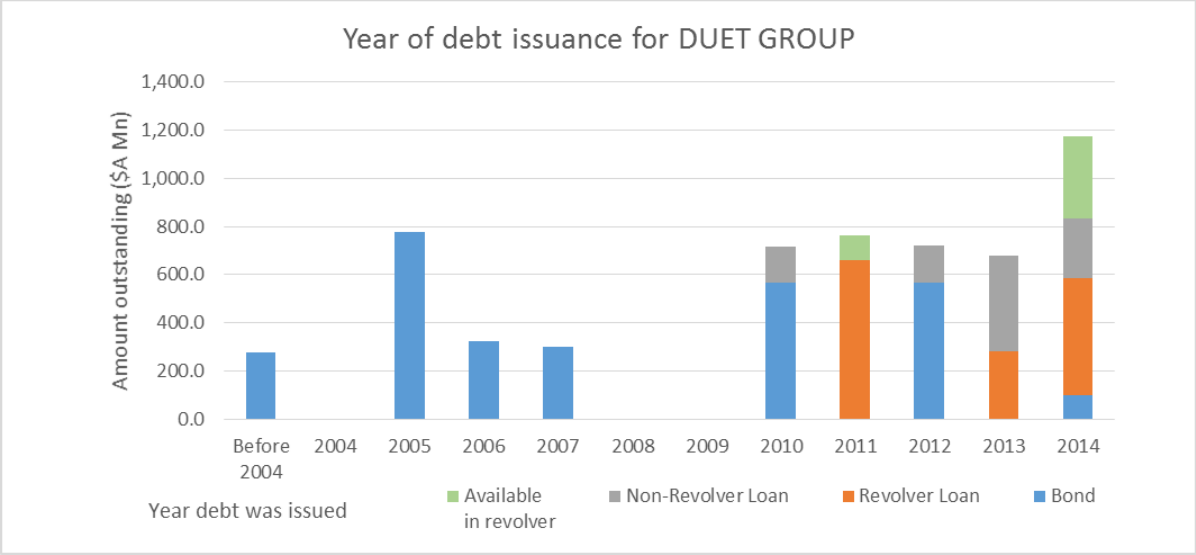
## A.1.38 DEXUS WHOLESALE PROPERTY FUND

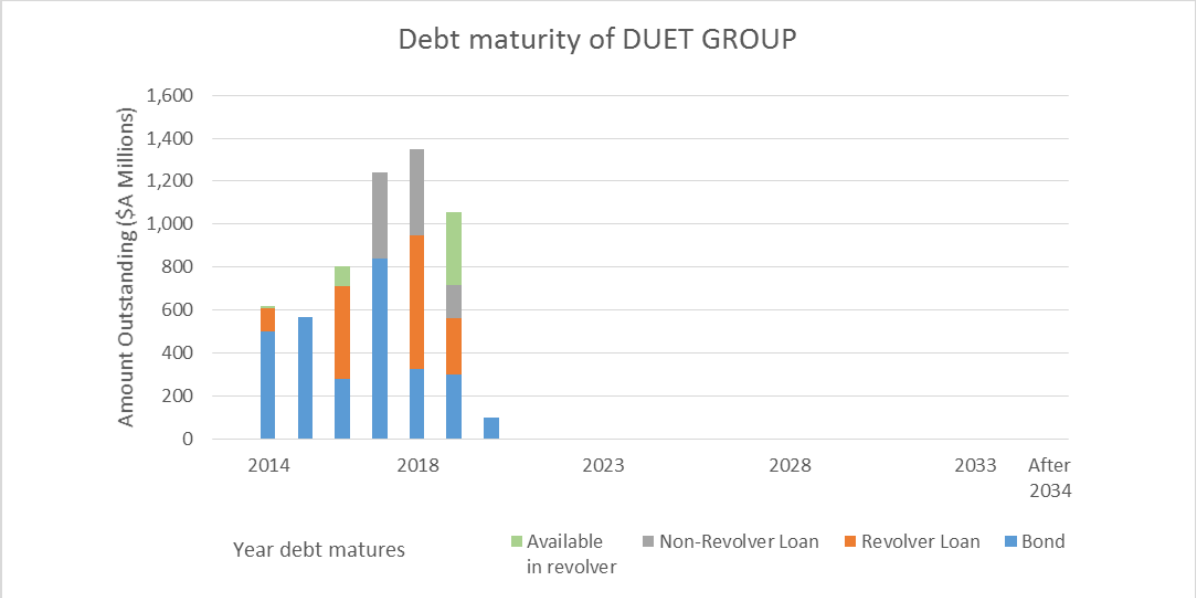



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 350.00 | 0.00 | 0.00 | 350.00 |
| Weighted average debt term | 5.00 | N/A | N/A | 5.00 |
| Simple average debt term | 5.00 | N/A | N/A | 5.00 |
| Weighted average time to maturity | 2.08 | N/A | N/A | 2.08 |
| Simple average time to maturity | 2.87 | N/A | N/A | 2.87 |

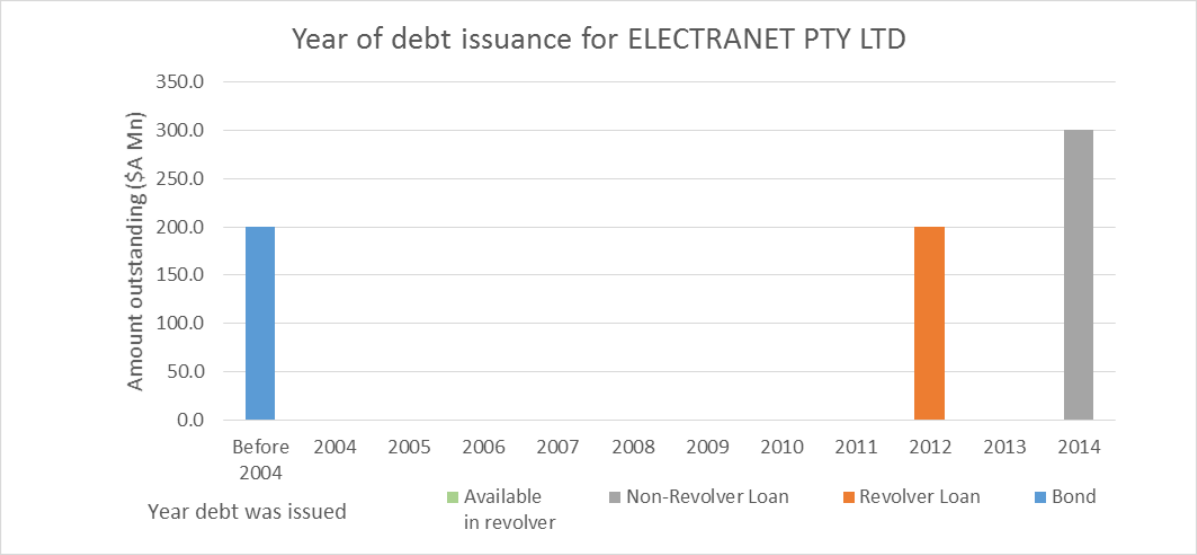
## A.1.39 DUET GROUP

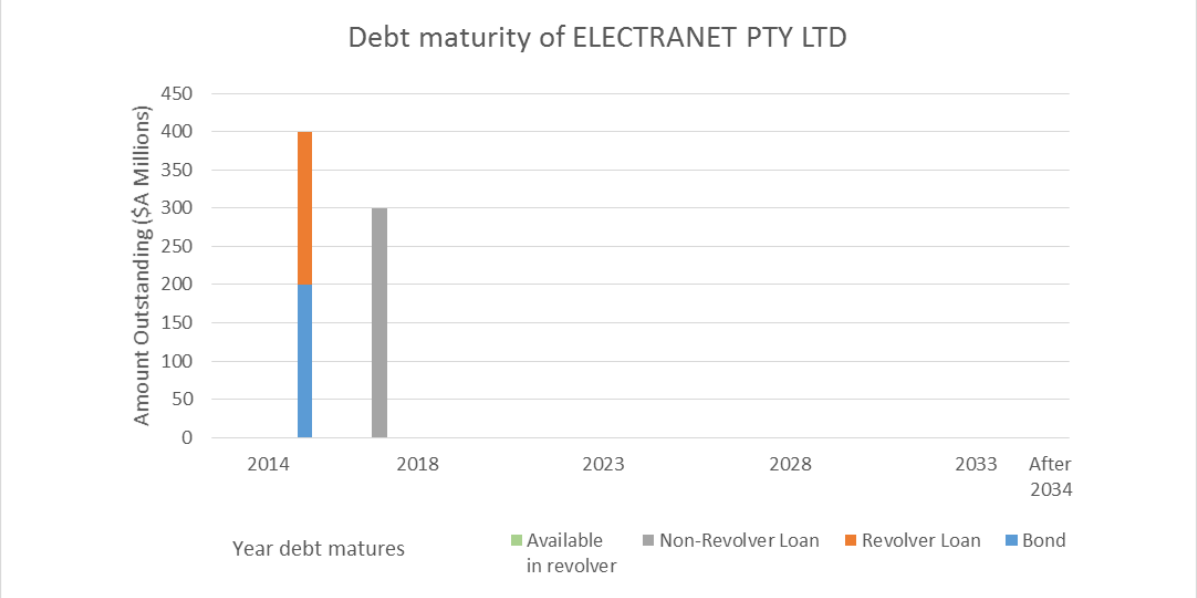



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 10 | 9 | 5 | 24 |
| Amount Outstanding ($A Mn) | 2,907.74 | 1,424.90 | 955.00 | 5,287.64 |
| Weighted average debt term | 8.59 | 4.87 | 5.13 | 6.96 |
| Simple average debt term | 8.34 | 4.67 | 2.78 | 6.27 |
| Weighted average time to maturity | 2.18 | 3.06 | 3.37 | 2.63 |
| Simple average time to maturity | 2.55 | 2.68 | 1.83 | 2.75 |

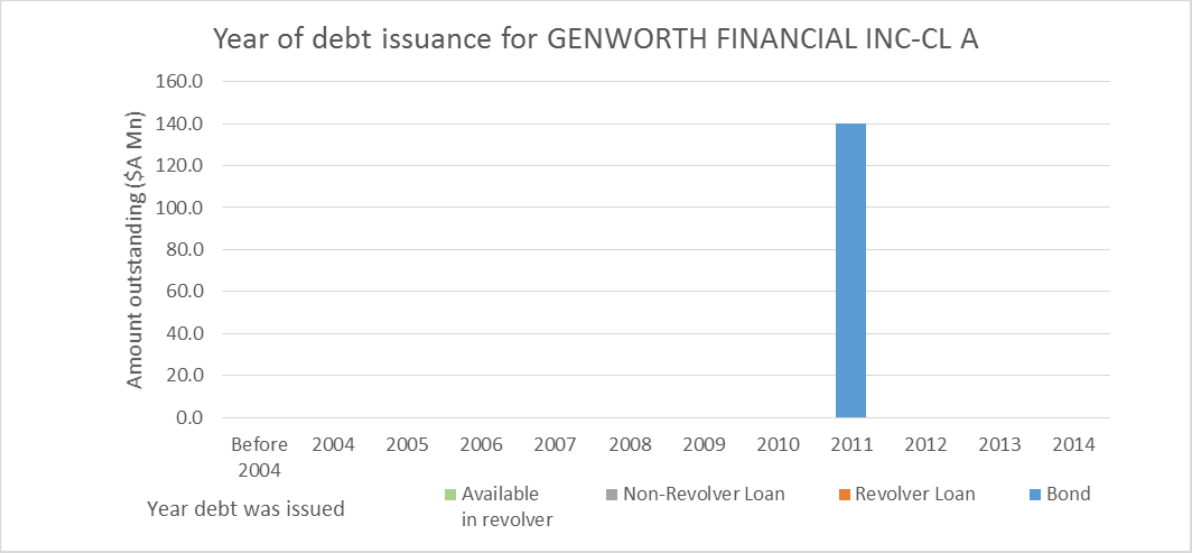
## A.1.40 ELECTRANET PTY LTD

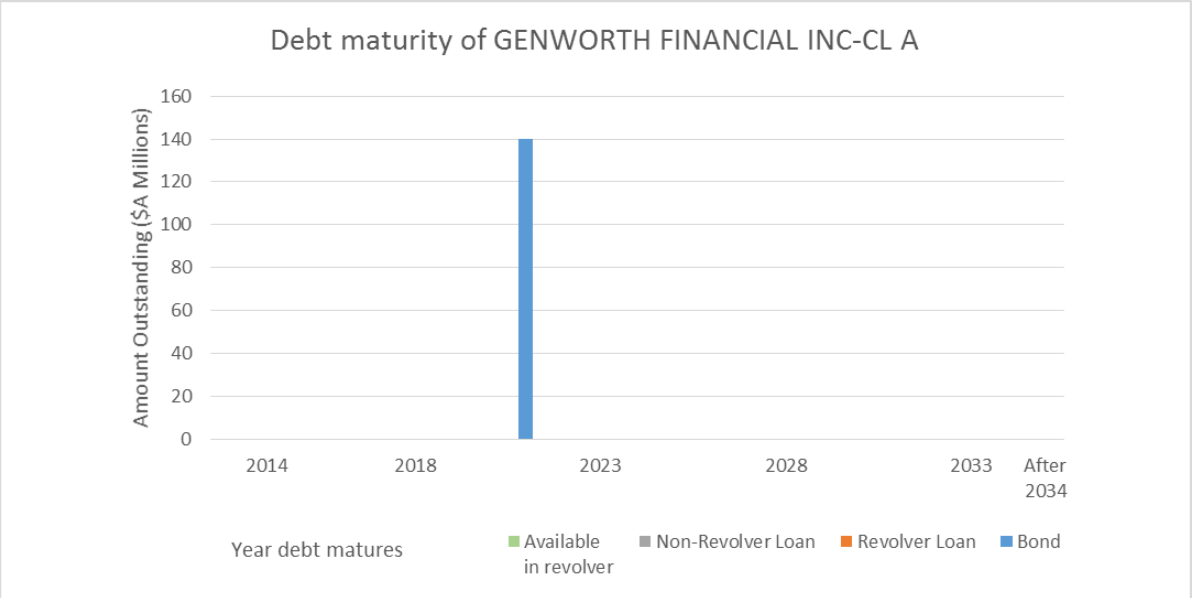



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 1 | 1 | 3 |
| Amount Outstanding ($A Mn) | 200.00 | 200.00 | 300.00 | 700.00 |
| Weighted average debt term | 14.75 | 3.00 | 3.00 | 6.36 |
| Simple average debt term | 14.75 | 3.00 | 3.00 | 6.92 |
| Weighted average time to maturity | 0.83 | 0.28 | 2.77 | 1.50 |
| Simple average time to maturity | 0.83 | 0.28 | 2.77 | 1.29 |

## A.1.41 GENWORTH FINANCIAL INC

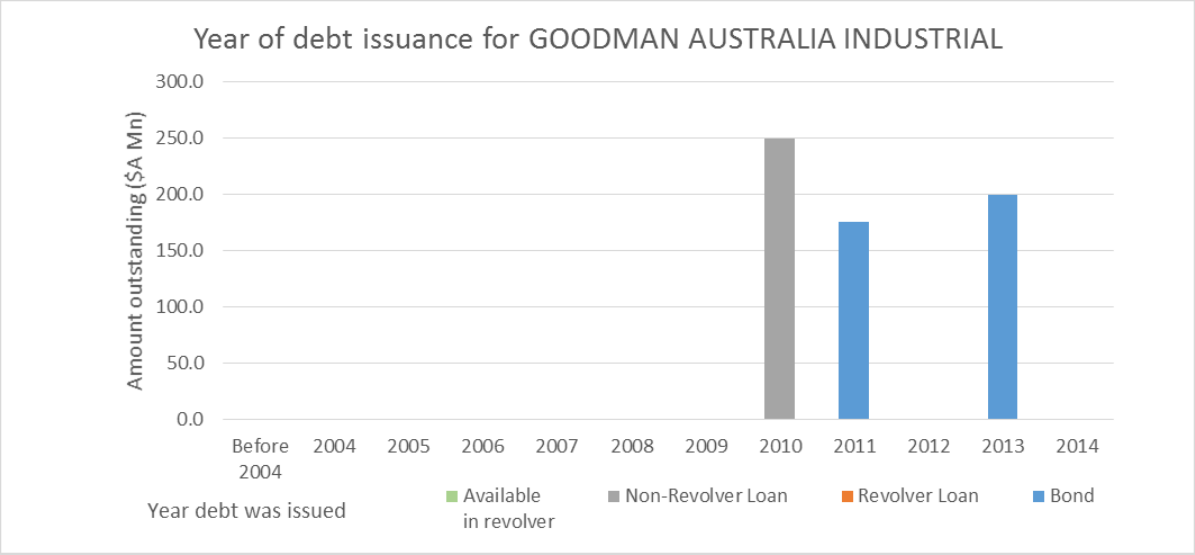


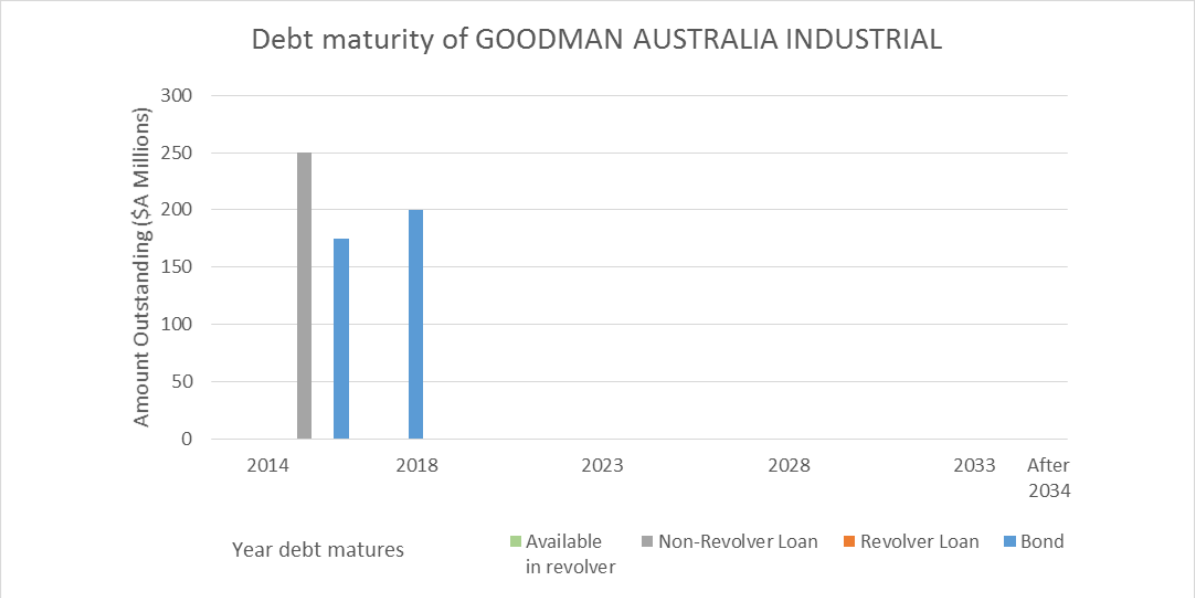




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 0 | 0 | 1 |
| Amount Outstanding ($A Mn) | 140.00 | 0.00 | 0.00 | 140.00 |
| Weighted average debt term | 10.00 | N/A | N/A | 10.00 |
| Simple average debt term | 10.00 | N/A | N/A | 10.00 |
| Weighted average time to maturity | 6.69 | N/A | N/A | 6.69 |
| Simple average time to maturity | 6.69 | N/A | N/A | 6.69 |

*Genworth Financial Inc has a AA- credit rating. No debt-to-equity ratio available.*

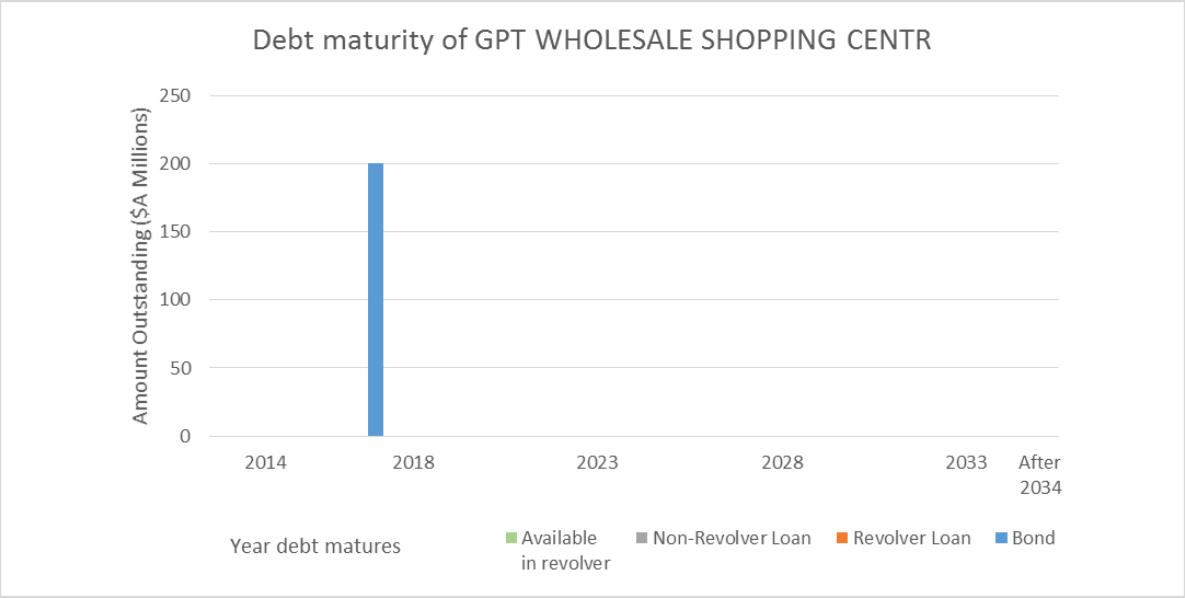
## A.1.42 GOODMAN AUSTRALIA INDUSTRIAL FUND



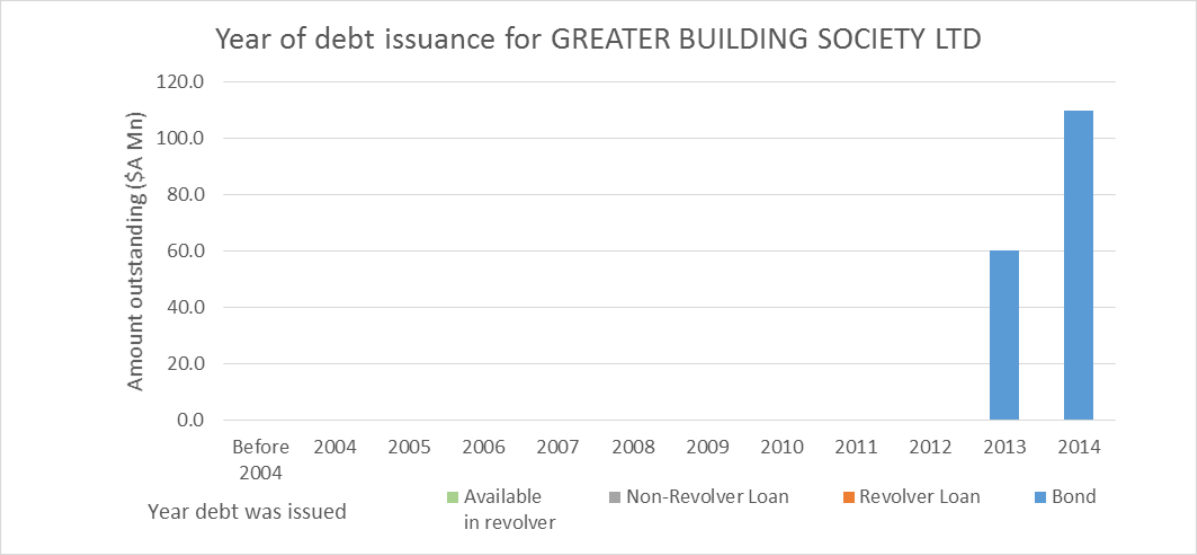

| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 1 | 3 |
| Amount Outstanding ($A Mn) | 375.00 | 0.00 | 250.00 | 625.00 |
| Weighted average debt term | 5.00 | N/A | 5.35 | 5.14 |
| Simple average debt term | 5.00 | N/A | N/A | 5.11 |
| Weighted average time to maturity | 2.56 | N/A | 0.94 | 1.91 |
| Simple average time to maturity | 2.50 | N/A | N/A | 1.98 |

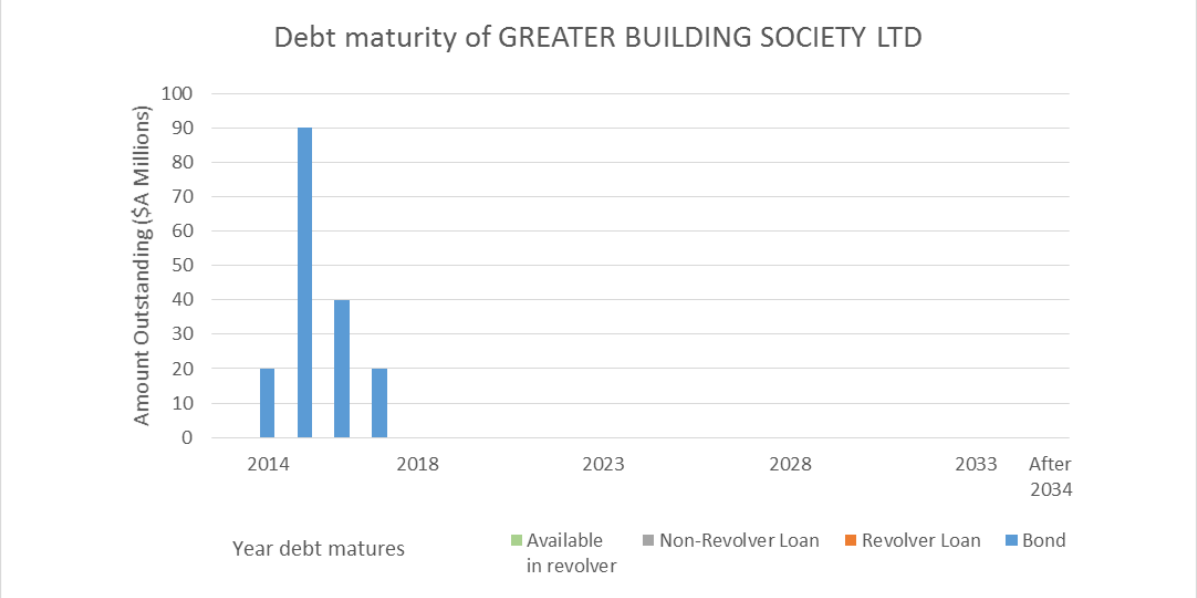
## A.1.43 GPT WHOLESALE SHOPPING CENTRE FUND NO 1


| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 0 | 0 | 1 |
| Amount Outstanding ($A Mn) | 200.00 | 0.00 | 0.00 | 200.00 |
| Weighted average debt term | 5.00 | N/A | N/A | 5.00 |
| Simple average debt term | 5.00 | N/A | N/A | 5.00 |
| Weighted average time to maturity | 3.07 | N/A | N/A | 3.07 |
| Simple average time to maturity | 3.07 | N/A | N/A | 3.07 |

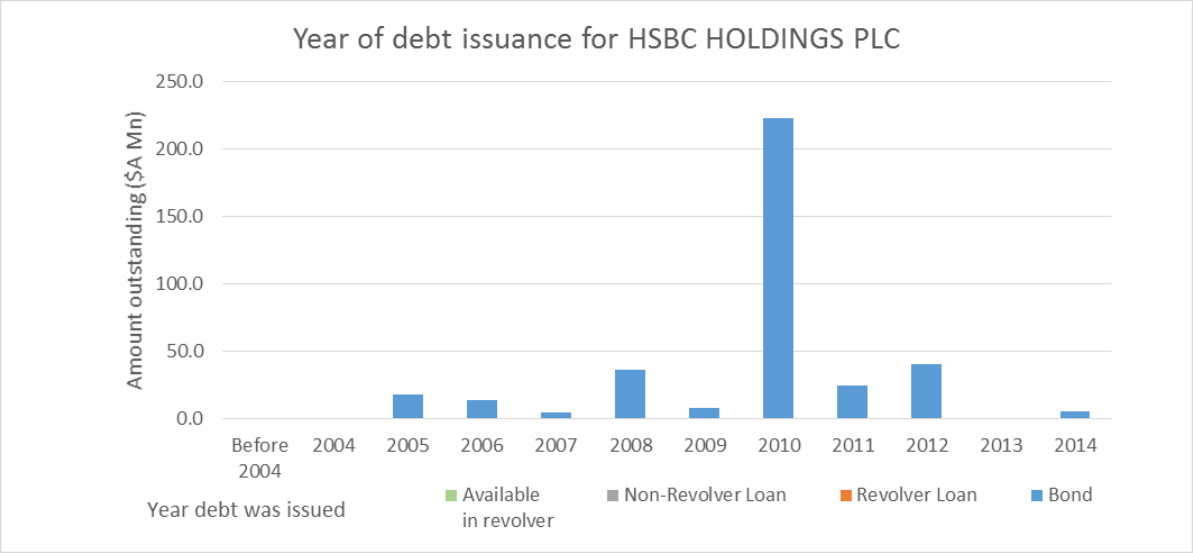
## A.1.44 GREATER BUILDING SOCIETY LTD

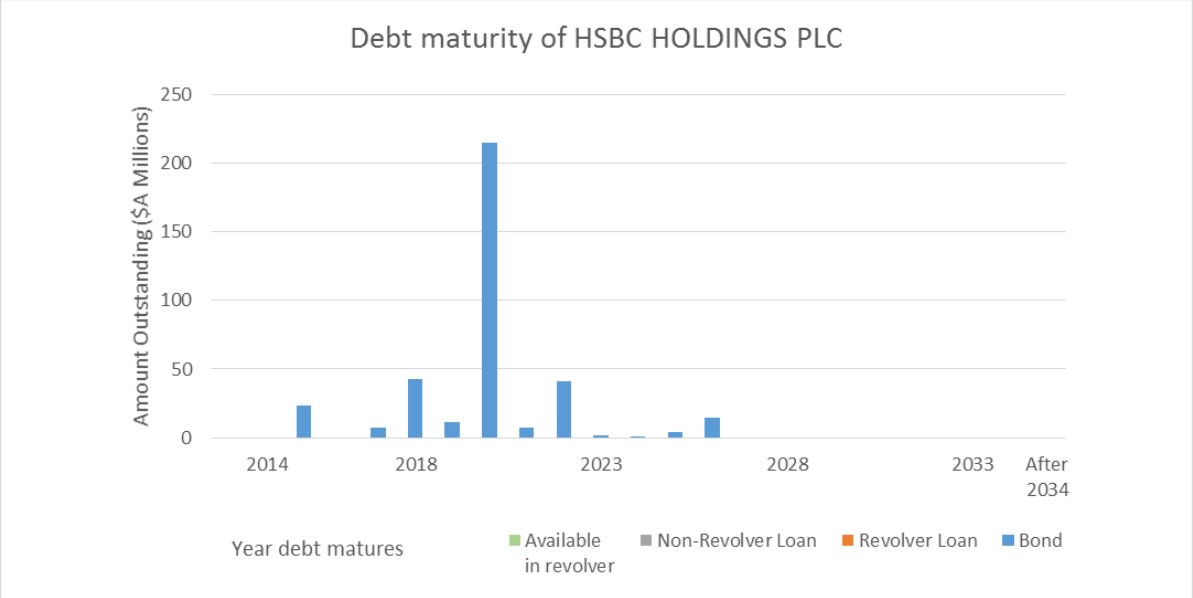



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 7 | 0 | 0 | 7 |
| Amount Outstanding ($A Mn) | 170.00 | 0.00 | 0.00 | 170.00 |
| Weighted average debt term | 1.70 | N/A | N/A | 1.70 |
| Simple average debt term | 1.86 | N/A | N/A | 1.86 |
| Weighted average time to maturity | 0.98 | N/A | N/A | 0.98 |
| Simple average time to maturity | 1.05 | N/A | N/A | 1.05 |

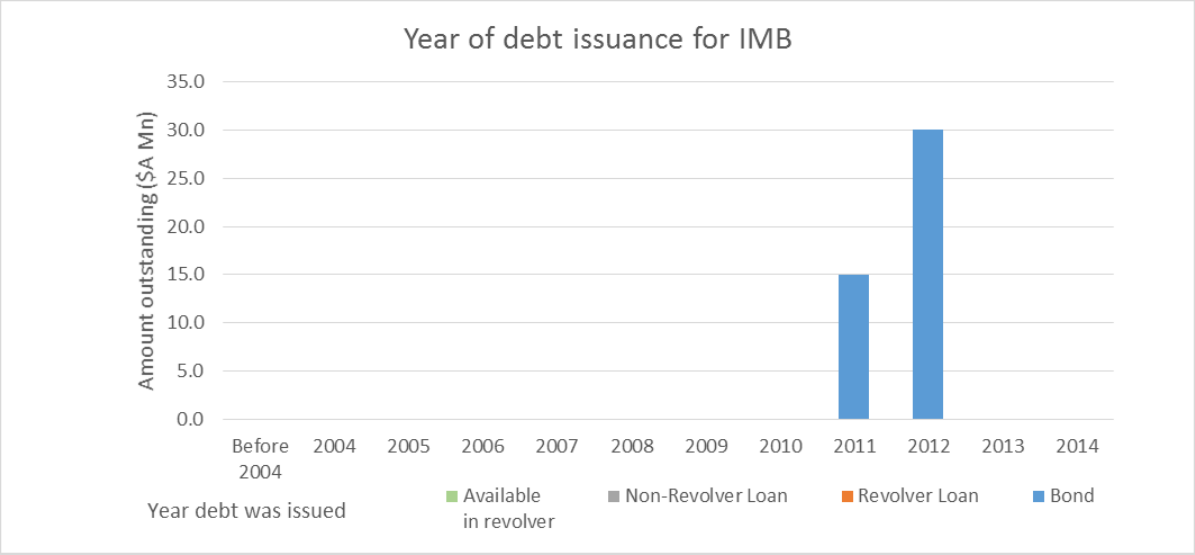
## A.1.45 HSBC HOLDINGS PLC

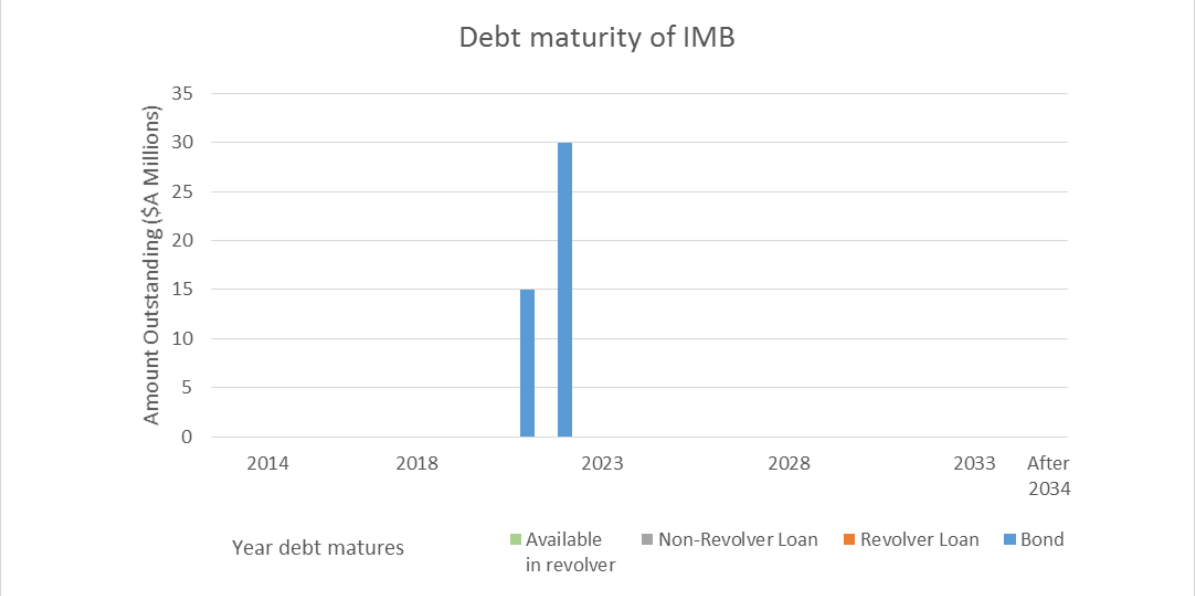



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 33 | 0 | 0 | 33 |
| Amount Outstanding ($A Mn) | 371.04 | 0.00 | 0.00 | 371.04 |
| Weighted average debt term | 10.23 | N/A | N/A | 10.23 |
| Simple average debt term | 11.18 | N/A | N/A | 11.18 |
| Weighted average time to maturity | 5.81 | N/A | N/A | 5.81 |
| Simple average time to maturity | 6.15 | N/A | N/A | 6.15 |

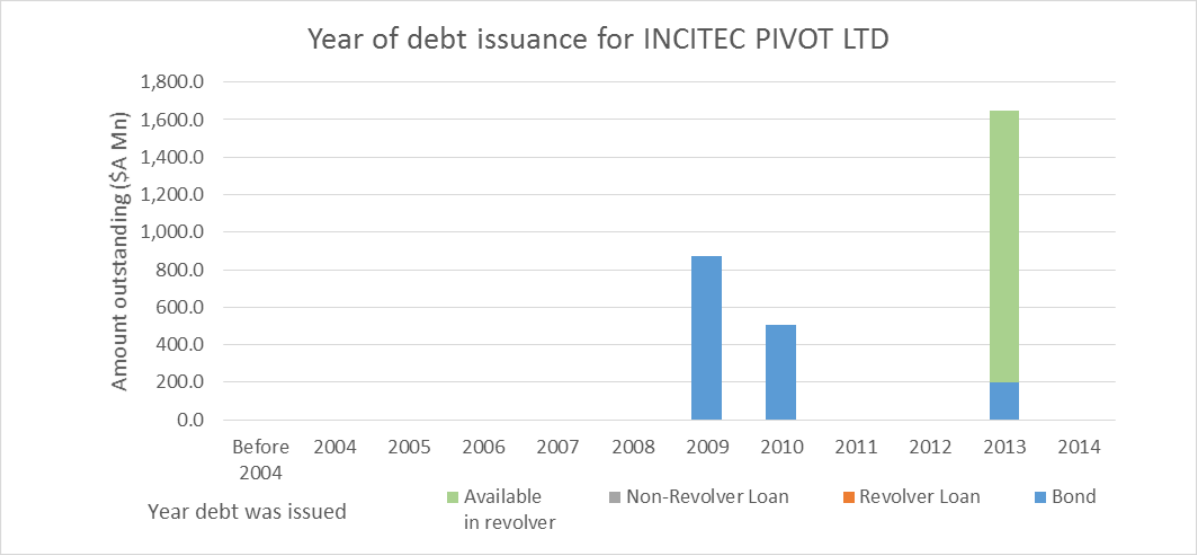
## A.1.46 IMB

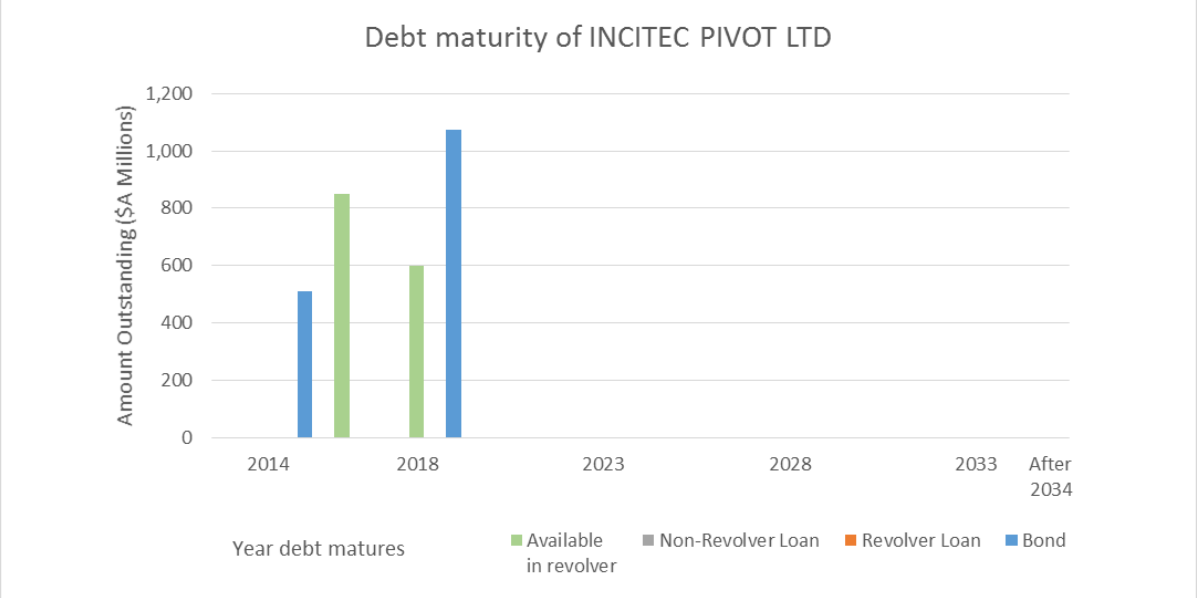



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 45.00 | 0.00 | 0.00 | 45.00 |
| Weighted average debt term | 10.00 | N/A | N/A | 10.00 |
| Simple average debt term | 10.00 | N/A | N/A | 10.00 |
| Weighted average time to maturity | 7.43 | N/A | N/A | 7.43 |
| Simple average time to maturity | 7.30 | N/A | N/A | 7.30 |

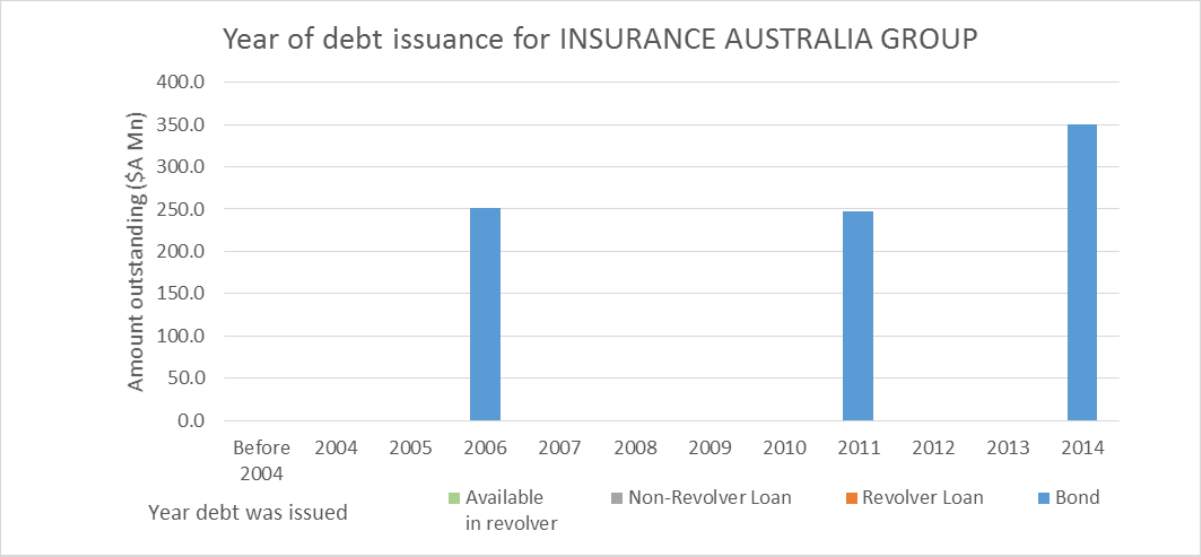
## A.1.47 INCITEC PIVOT LTD

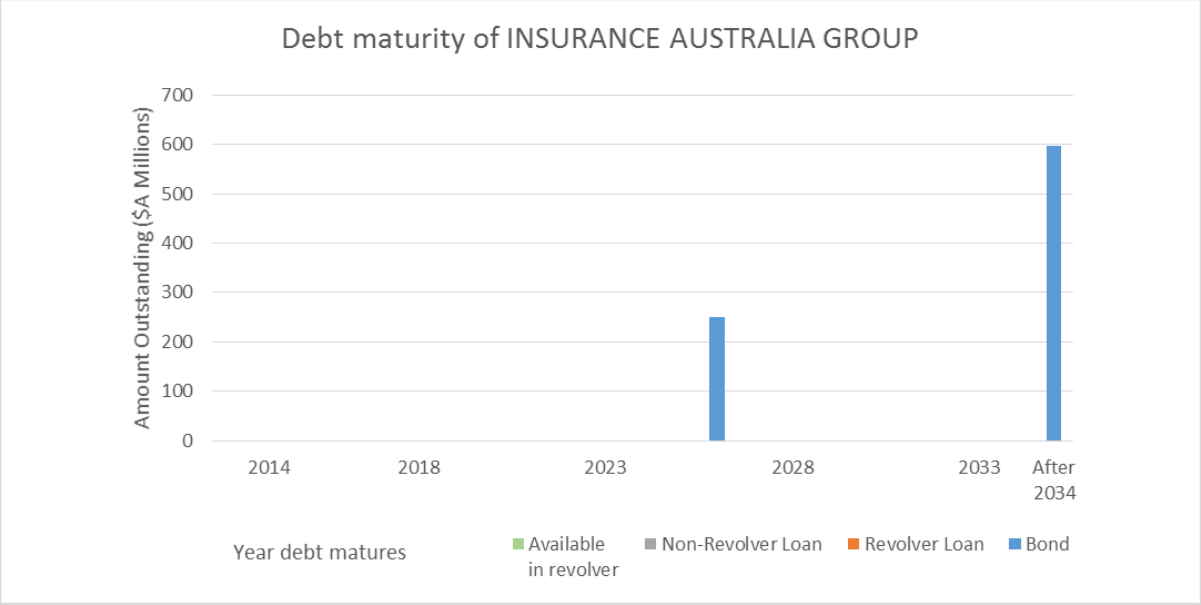



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 3 | 2 | 0 | 5 |
| Amount Outstanding ($A Mn) | 1,581.49 | 0.00 | 0.00 | 1,581.49 |
| Weighted average debt term | 7.82 | N/A | N/A | 7.82 |
| Simple average debt term | 6.83 | 4.11 | 0.00 | 5.74 |
| Weighted average time to maturity | 3.75 | N/A | N/A | 3.75 |
| Simple average time to maturity | 3.54 | 2.95 | 0.00 | 3.30 |

## A.1.48 INSURANCE AUSTRALIA GROUP LTD

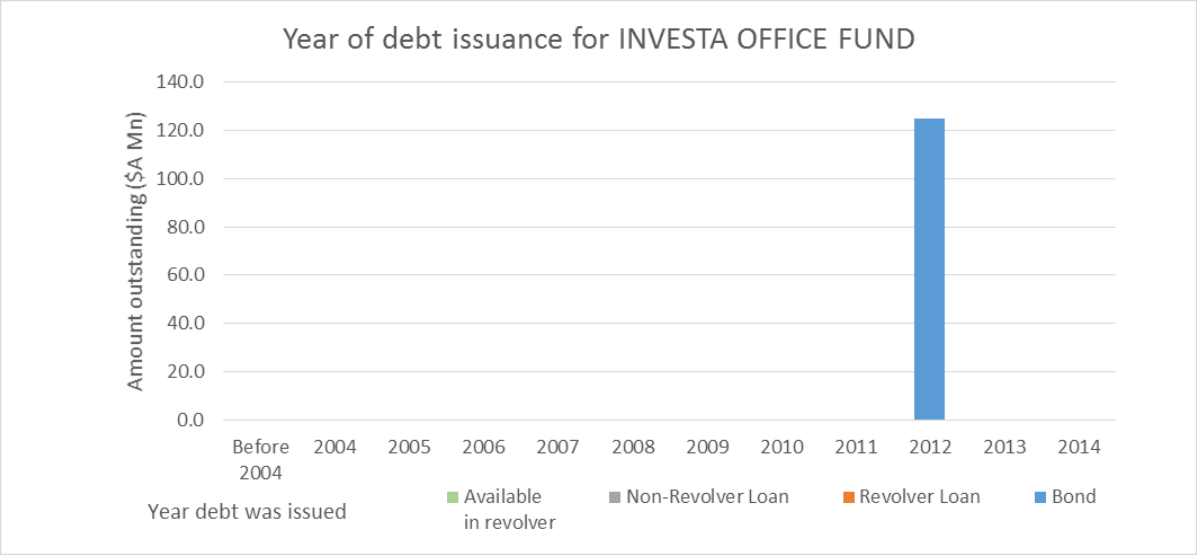


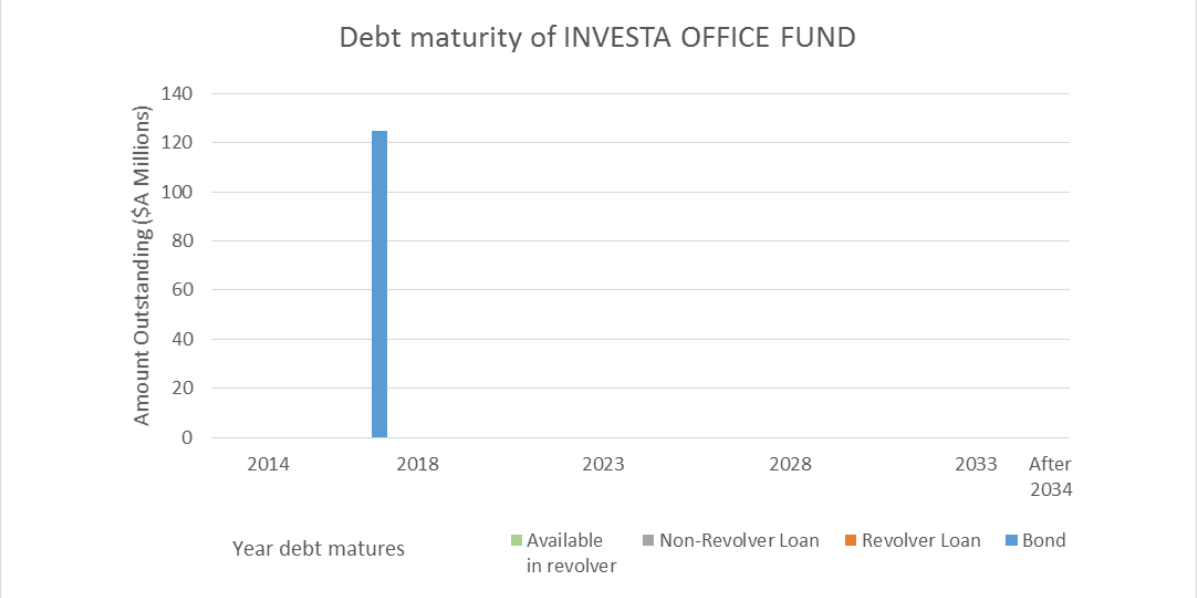




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 4 | 0 | 0 | 4 |
| Amount Outstanding ($A Mn) | 847.66 | 0.00 | 0.00 | 847.66 |
| Weighted average debt term | 23.93 | N/A | N/A | 23.93 |
| Simple average debt term | 17.75 | N/A | N/A | 17.75 |
| Weighted average time to maturity | 20.54 | N/A | N/A | 20.54 |
| Simple average time to maturity | 14.93 | N/A | N/A | 19.91 |

**One bond due in 2036 with A$ 246.72 million outstanding, and another due in 2040 with A$350 million outstanding.*

## A.1.49 INVESTA OFFICE FUND

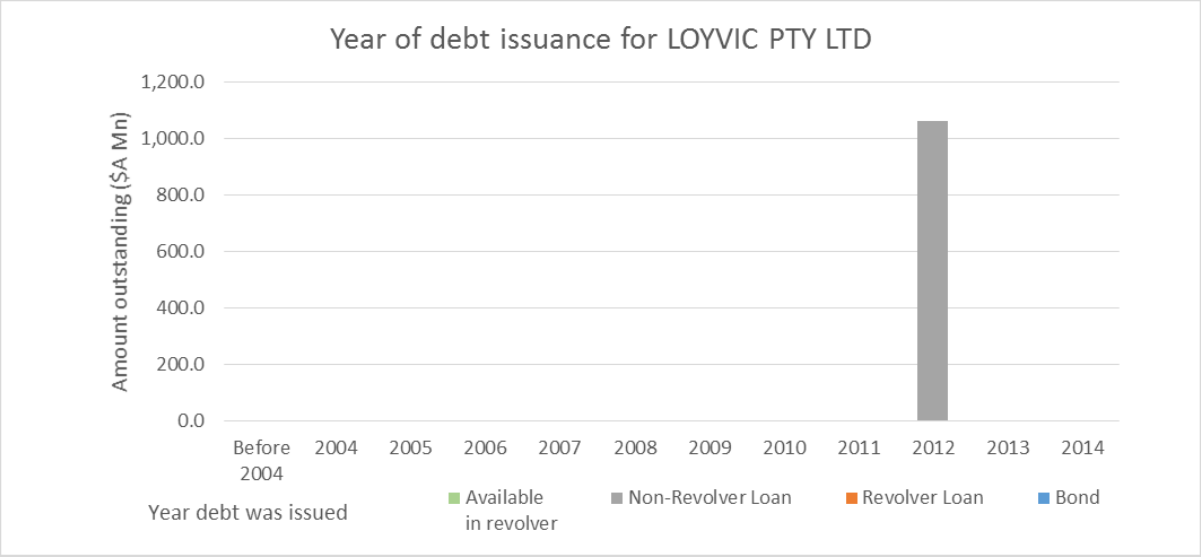


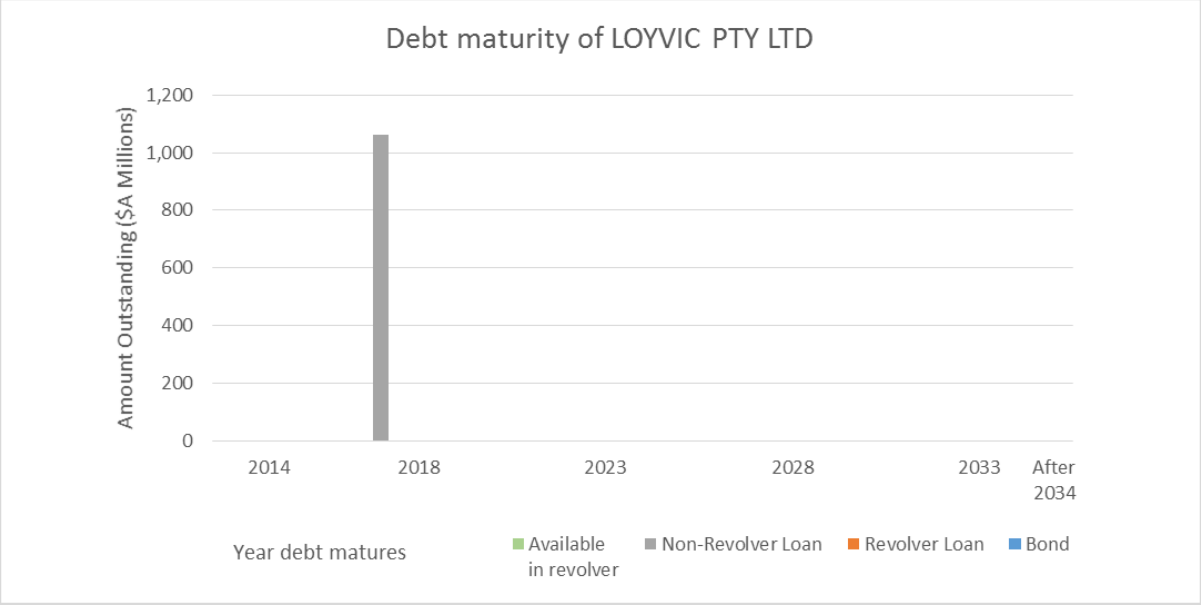




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 0 | 0 | 1 |
| Amount Outstanding ($A Mn) | 125.00 | 0.00 | 0.00 | 125.00 |
| Weighted average debt term | 5.00 | N/A | N/A | 5.00 |
| Simple average debt term | 5.00 | N/A | N/A | 5.00 |
| Weighted average time to maturity | 3.05 | N/A | N/A | 3.05 |
| Simple average time to maturity | 3.05 | N/A | N/A | 3.05 |

**Investa Office Fund has a BBB+ credit rating and a low debt-to-equity ratio of 46%.*

## A.1.50 LOYVIC PTY LTD

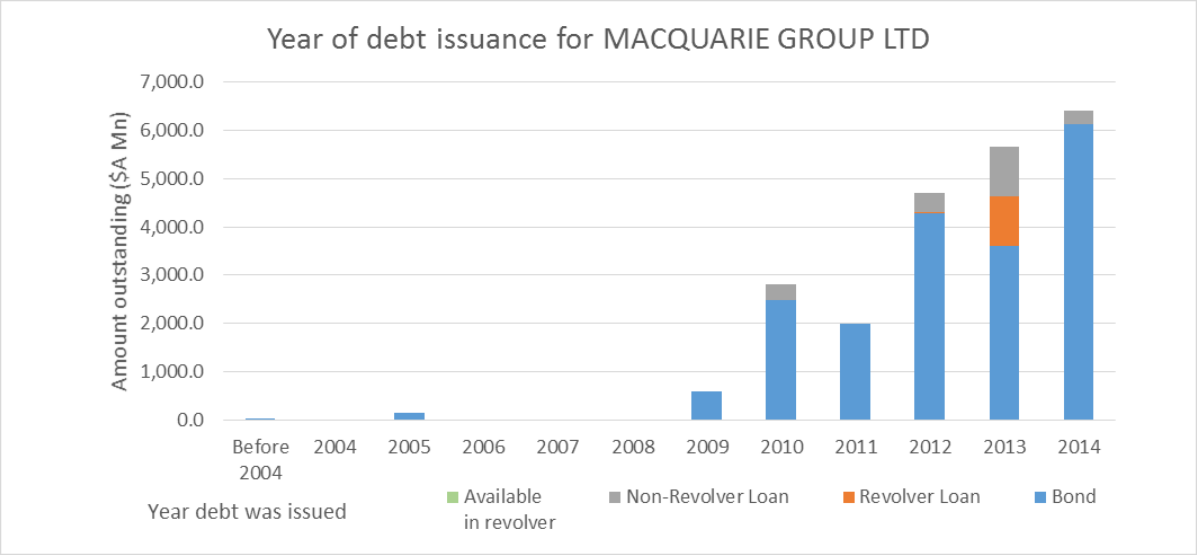


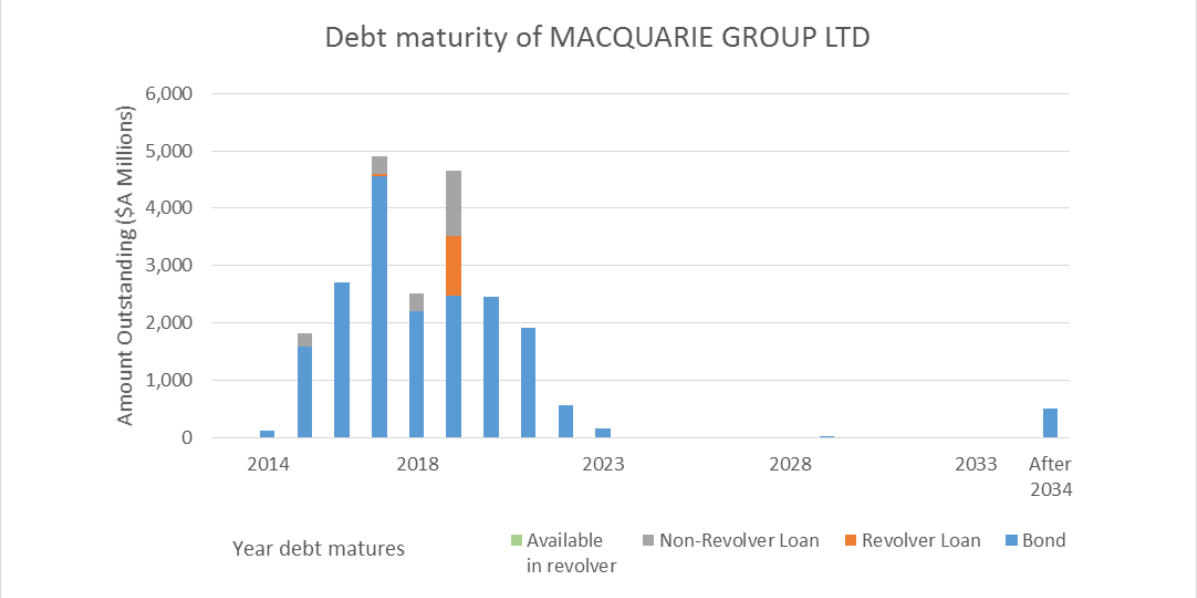




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 0 | 1 | 1 |
| Amount Outstanding ($A Mn) | 0.00 | 0.00 | 1,062.13 | 1,062.13 |
| Weighted average debt term | N/A | N/A | 5.04 | 5.04 |
| Simple average debt term | N/A | N/A | N/A | 5.04 |
| Weighted average time to maturity | N/A | N/A | 2.69 | 2.69 |
| Simple average time to maturity | N/A | N/A | N/A | 2.69 |

**Loyvic Pty Ltd has a BB+ credit rating. No debt-to-equity ratio available.*

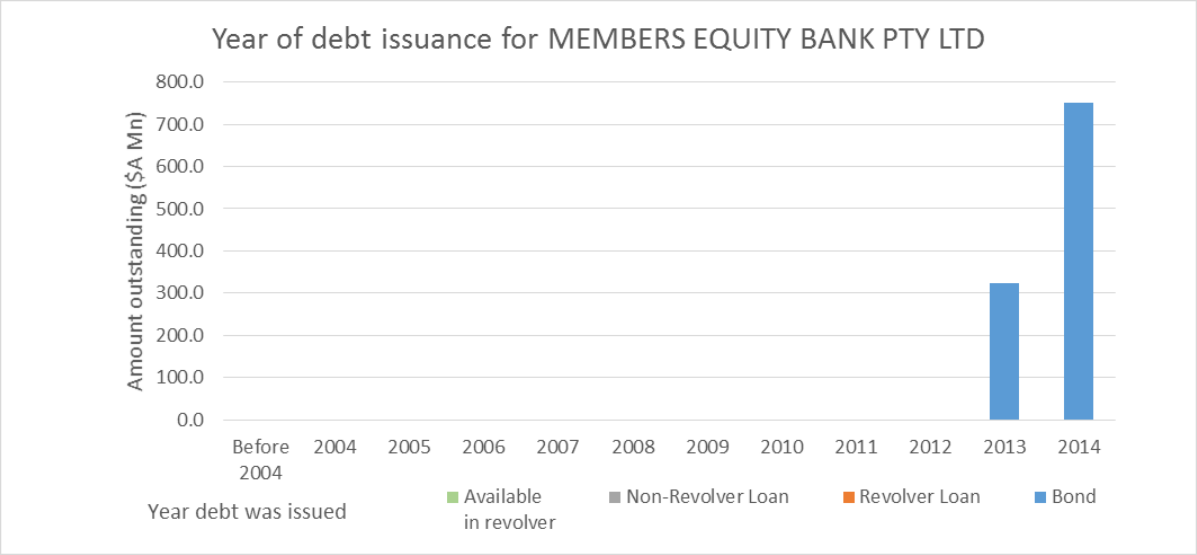
## A.1.51 MACQUARIE GROUP LTD

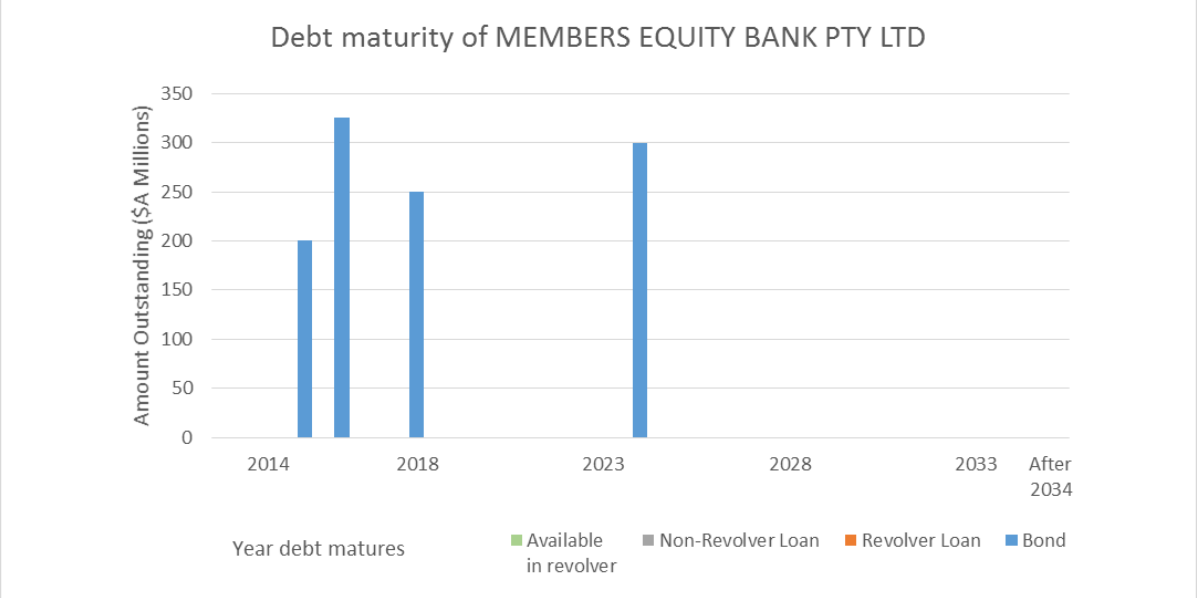



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 113 | 4 | 7 | 124 |
| Amount Outstanding ($A Mn) | 19,251.19 | 1,069.26 | 2,019.91 | 22,340.36 |
| Weighted average debt term | 6.56 | 5.06 | 5.00 | 6.35 |
| Simple average debt term | 6.61 | 5.13 | 7.88 | 6.45 |
| Weighted average time to maturity | 4.51 | 4.16 | 3.57 | 4.41 |
| Simple average time to maturity | 4.57 | 3.43 | 5.58 | 4.57 |

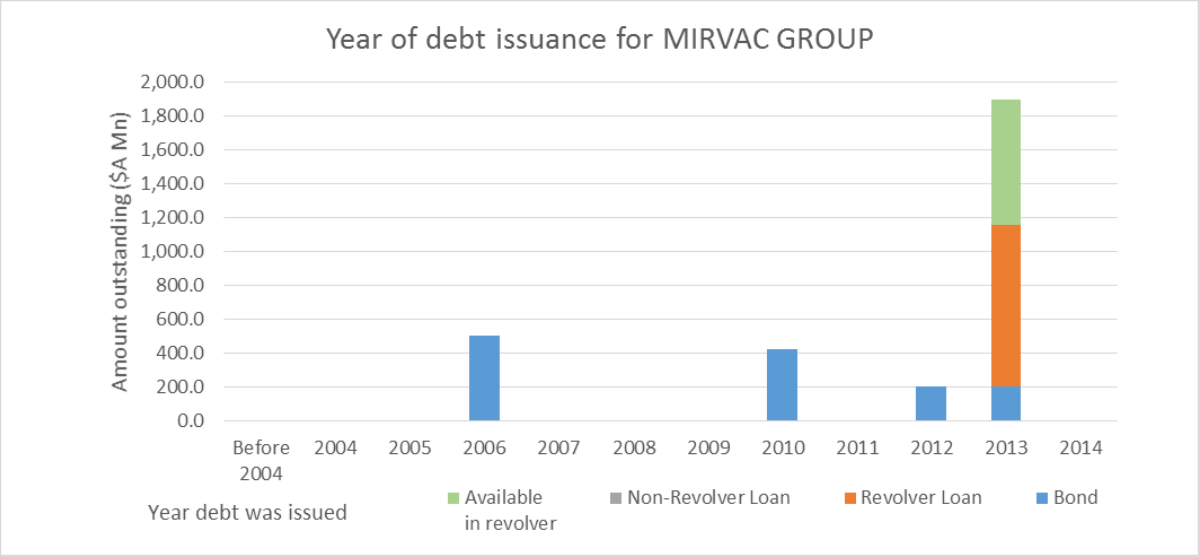
## A.1.52 MEMBERS EQUITY BANK PTY LTD

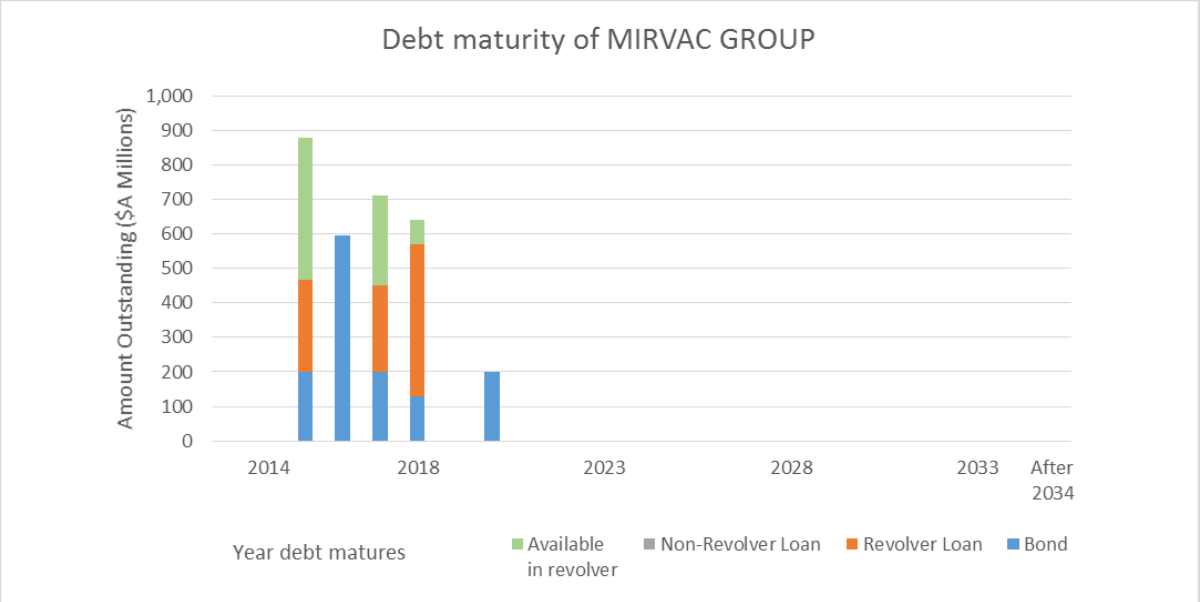



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 5 | 0 | 0 | 5 |
| Amount Outstanding ($A Mn) | 1,075.00 | 0.00 | 0.00 | 1,075.00 |
| Weighted average debt term | 4.81 | N/A | N/A | 4.81 |
| Simple average debt term | 3.80 | N/A | N/A | 3.80 |
| Weighted average time to maturity | 4.27 | N/A | N/A | 4.27 |
| Simple average time to maturity | 3.25 | N/A | N/A | 3.25 |

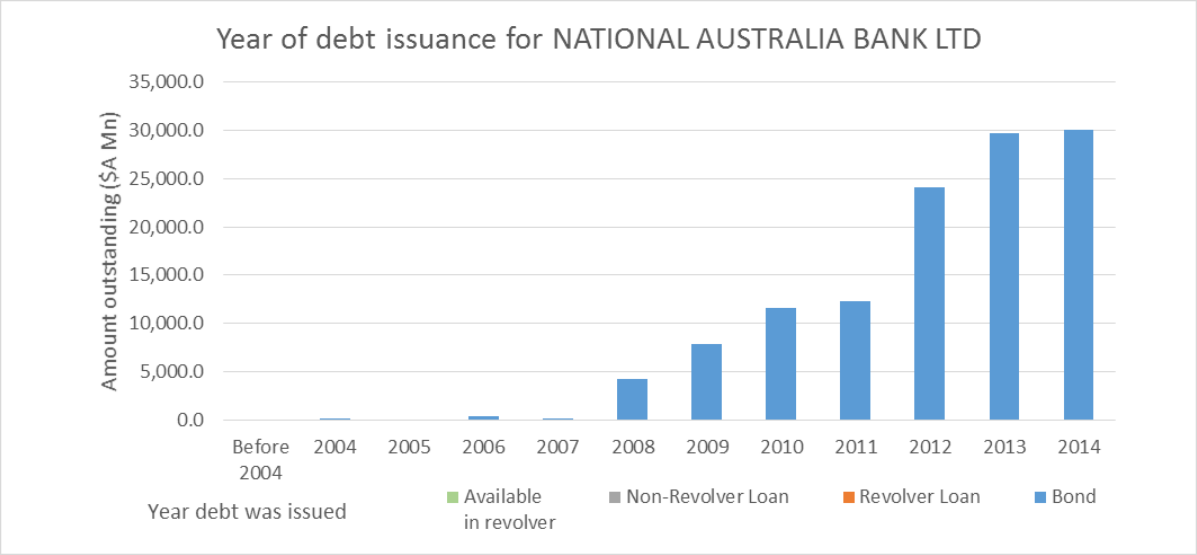
## A.1.53 MIRVAC GROUP

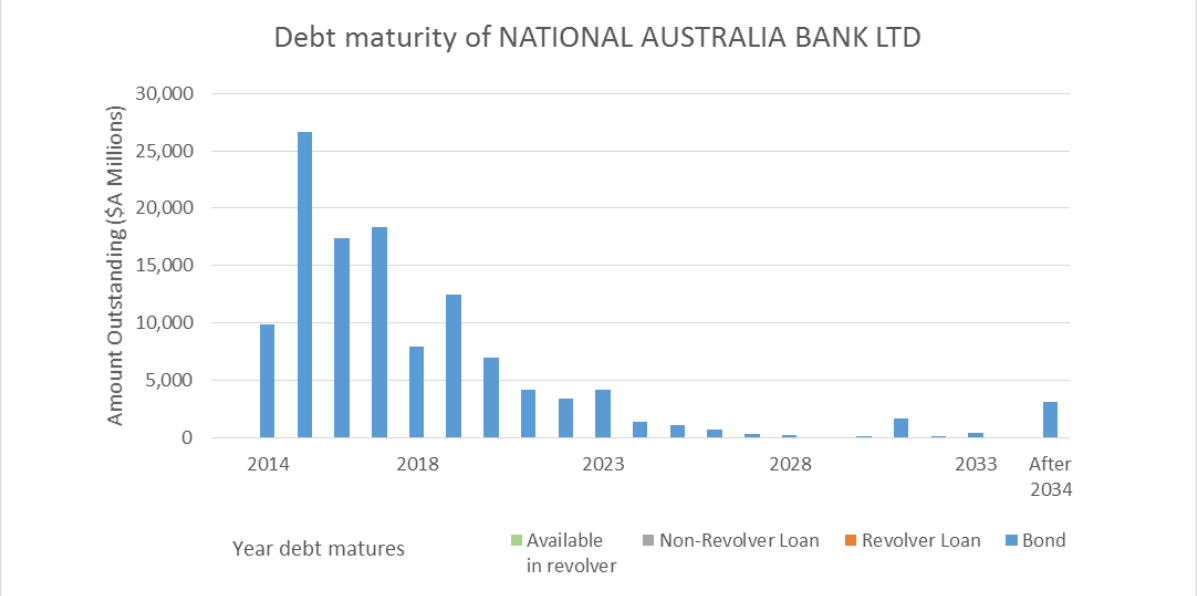



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 7 | 3 | 0 | 10 |
| Amount Outstanding ($A Mn) | 1,325.00 | 957.30 | 0.00 | 2,282.30 |
| Weighted average debt term | 7.54 | 4.16 | N/A | 6.12 |
| Simple average debt term | 7.84 | 3.92 | 0.00 | 6.67 |
| Weighted average time to maturity | 2.73 | 2.85 | N/A | 2.78 |
| Simple average time to maturity | 2.80 | 2.61 | 0.00 | 2.74 |

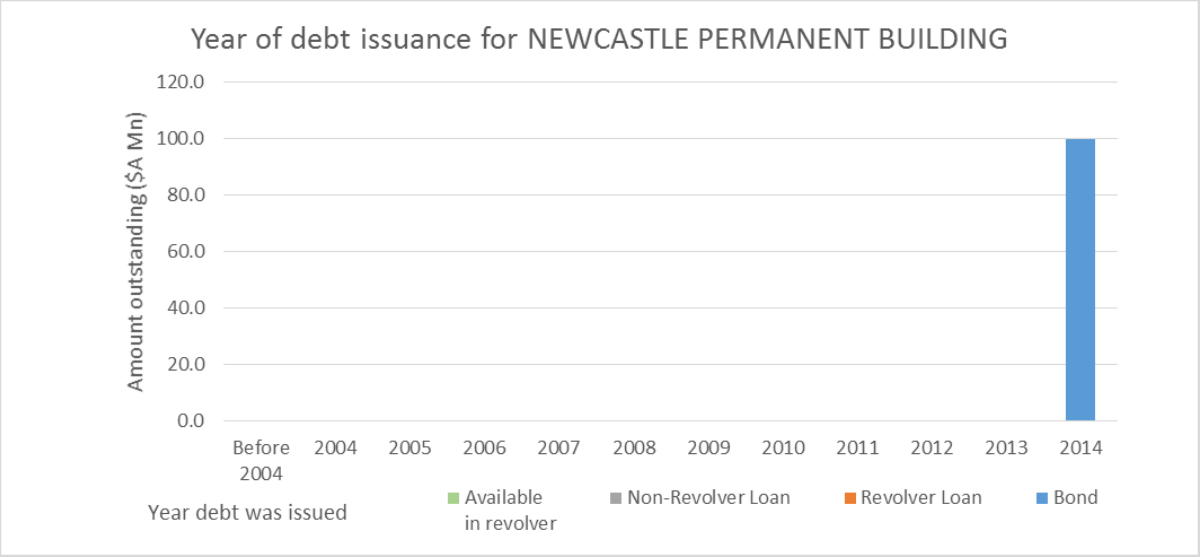
## A.1.54 NATIONAL AUSTRALIA BANK LTD

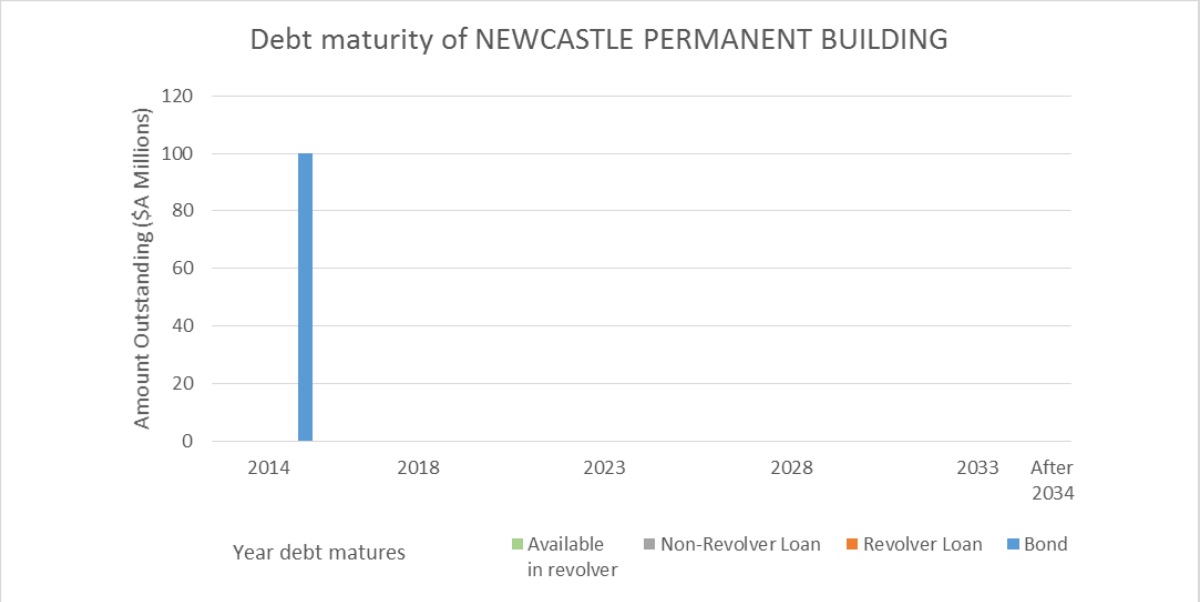



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 388 | 0 | 0 | 388 |
| Amount Outstanding ($A Mn) | 120,346.18 | 0.00 | 0.00 | 120,346.18 |
| Weighted average debt term | 6.15 | N/A | N/A | 6.15 |
| Simple average debt term | 9.63 | N/A | N/A | 9.63 |
| Weighted average time to maturity | 3.93 | N/A | N/A | 3.93 |
| Simple average time to maturity | 7.07 | N/A | N/A | 7.12 |

## A.1.55 NEWCASTLE PERMANENT BUILDING SOCIETY LTD

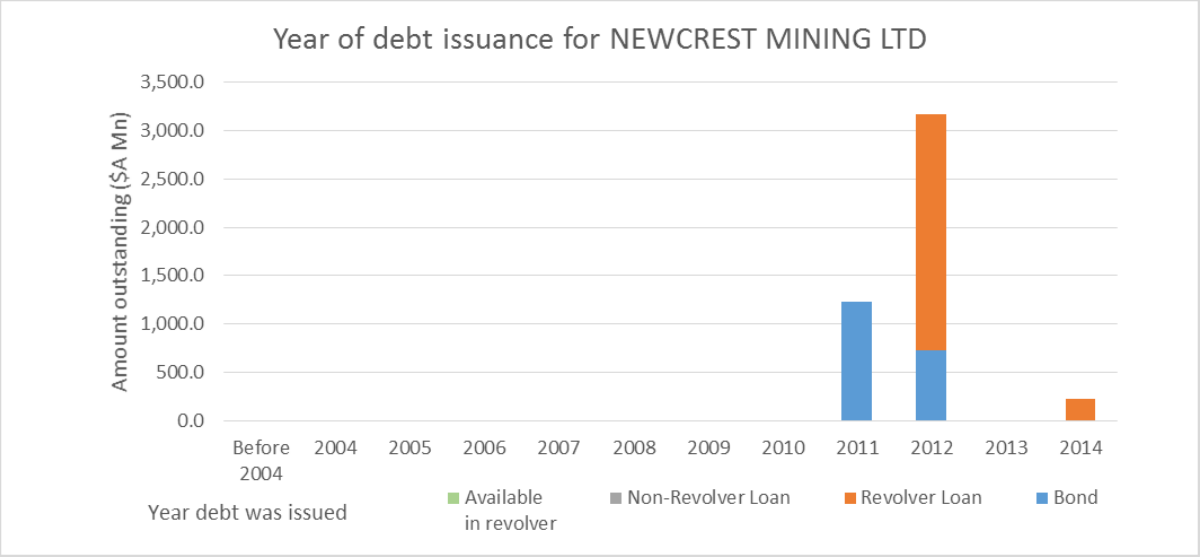


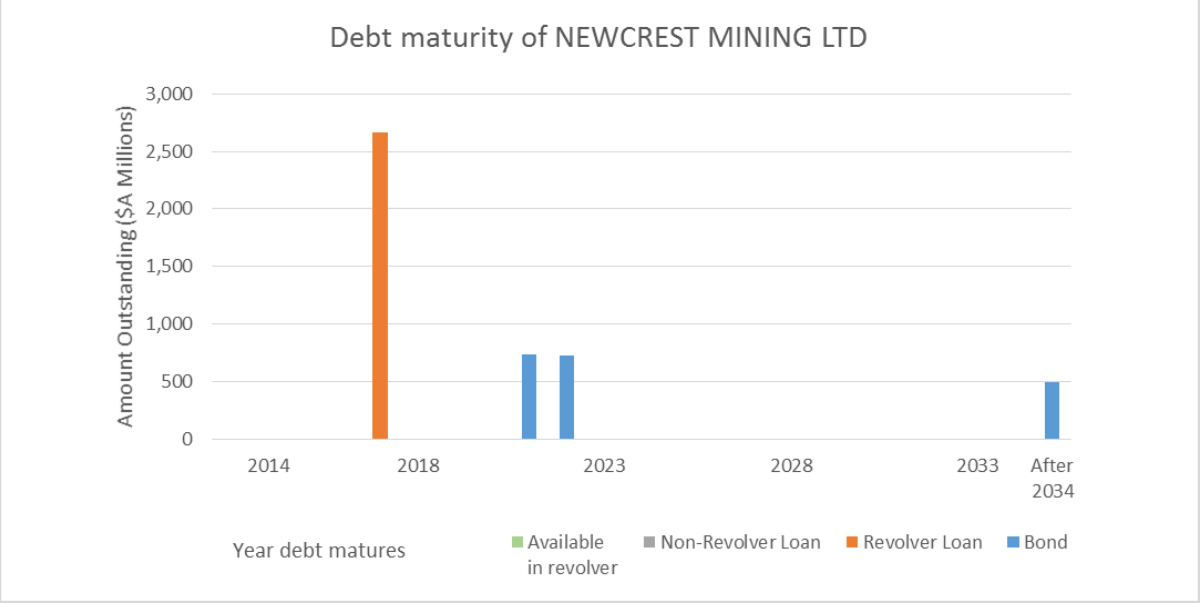




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 100.00 | 0.00 | 0.00 | 100.00 |
| Weighted average debt term | 1.00 | N/A | N/A | 1.00 |
| Simple average debt term | 1.00 | N/A | N/A | 1.00 |
| Weighted average time to maturity | 0.49 | N/A | N/A | 0.49 |
| Simple average time to maturity | 0.49 | N/A | N/A | 0.49 |

**Newcastle Permanent Building Society Ltd has a BBB+ credit rating. No debt-to-equity ratio available.*

## A.1.56 NEWCREST MINING LTD

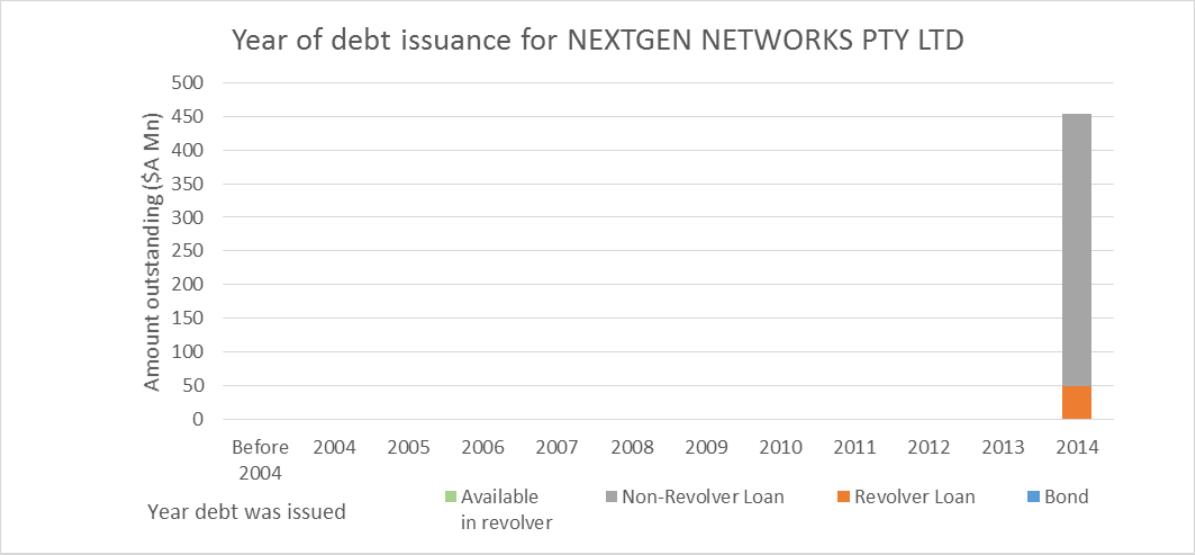


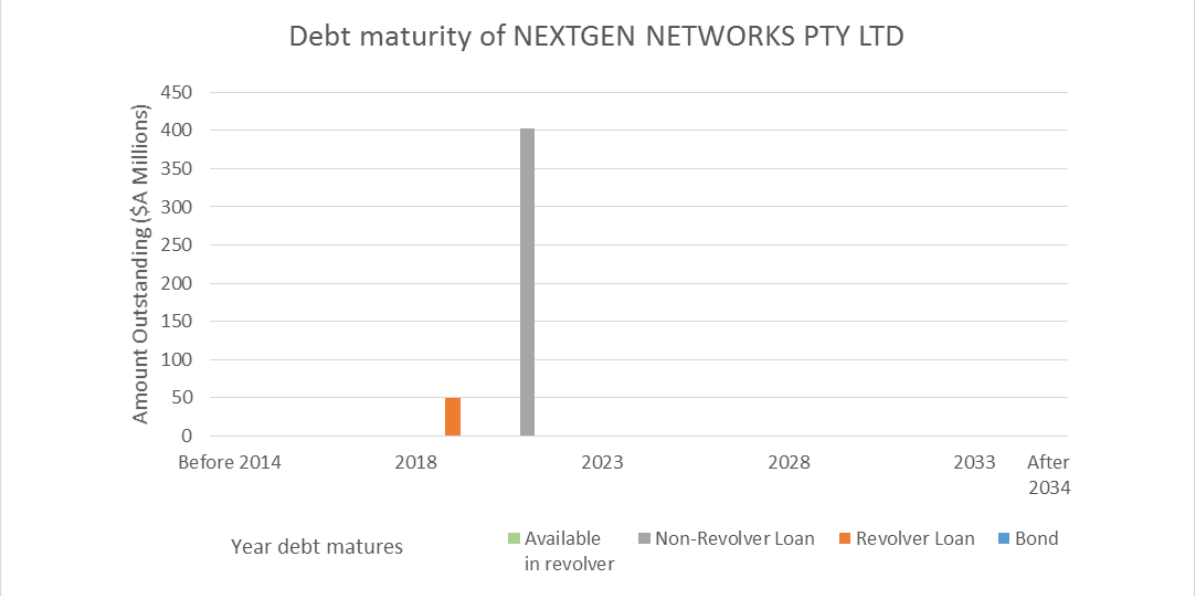




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 3 | 11 | 0 | 14 |
| Amount Outstanding ($A Mn) | 1,952.01 | 2,663.02 | 0.00 | 4,615.02 |
| Weighted average debt term | 15.03 | 4.83 | N/A | 9.15 |
| Simple average debt term | 16.67 | 4.82 | 0.00 | 7.36 |
| Weighted average time to maturity | 12.43 | 2.82 | N/A | 6.89 |
| Simple average time to maturity | 14.03 | 2.82 | 0.00 | 5.22 |

**One bond due in 2041 with A$ 491.26 million outstanding.*

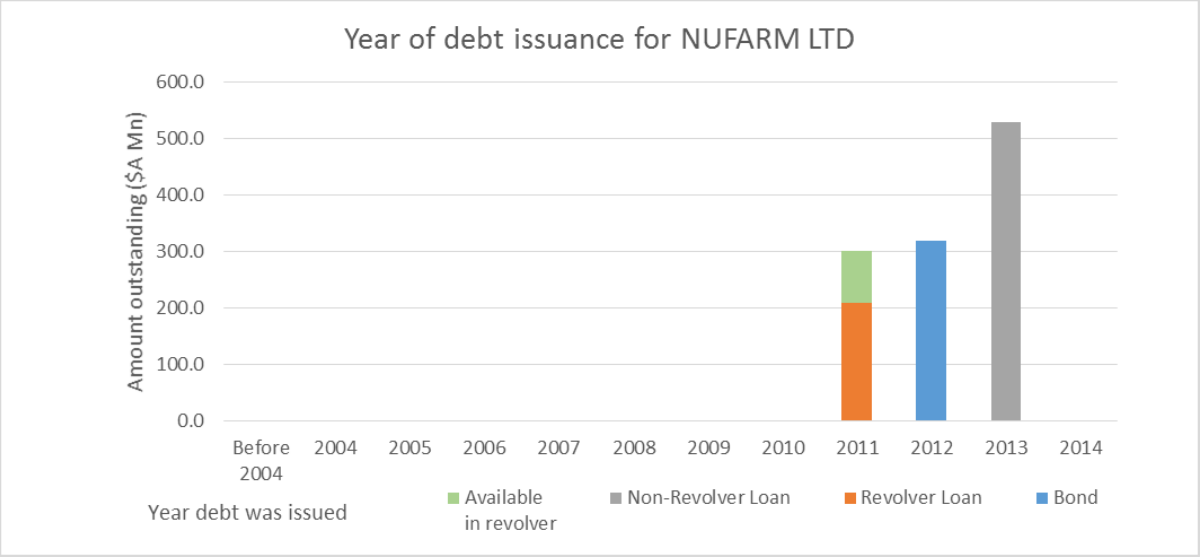
## A.1.57 NEXTGEN NETWORKS PTY LTD

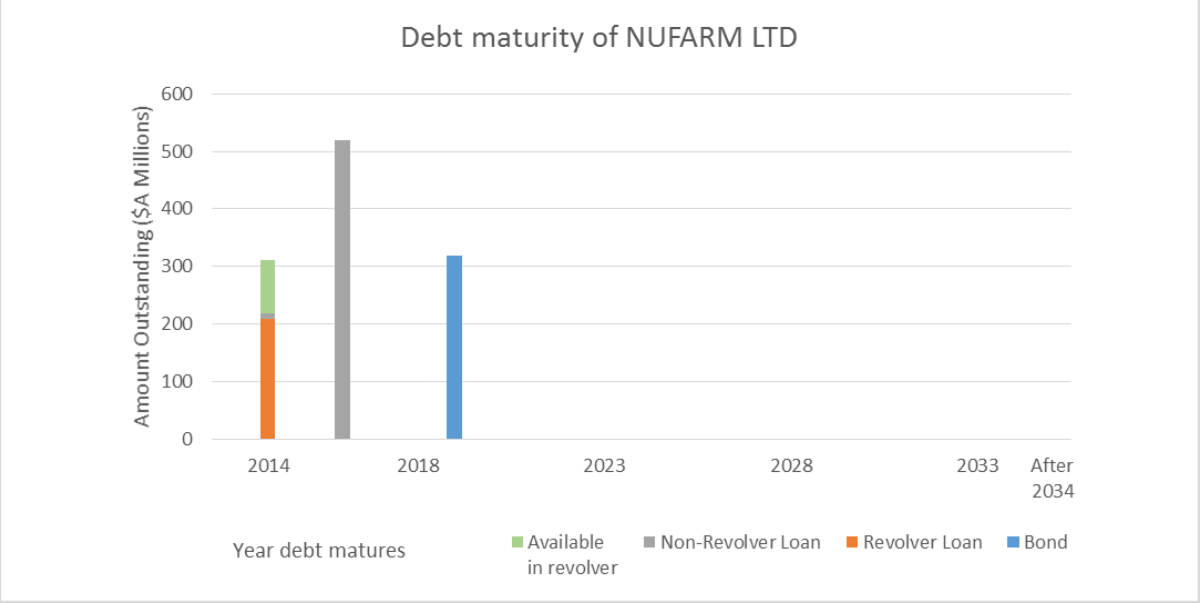



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 1 | 1 | 2 |
| Amount Outstanding ($A Mn) | 0.00 | 50.00 | 402.92 | 452.92 |
| Weighted average debt term | N/A | 5.00 | 7.00 | 6.78 |
| Simple average debt term | N/A | 5.00 | 7.00 | 6.00 |
| Weighted average time to maturity | N/A | 4.61 | 6.61 | 6.39 |
| Simple average time to maturity | N/A | 4.61 | 6.61 | 5.61 |

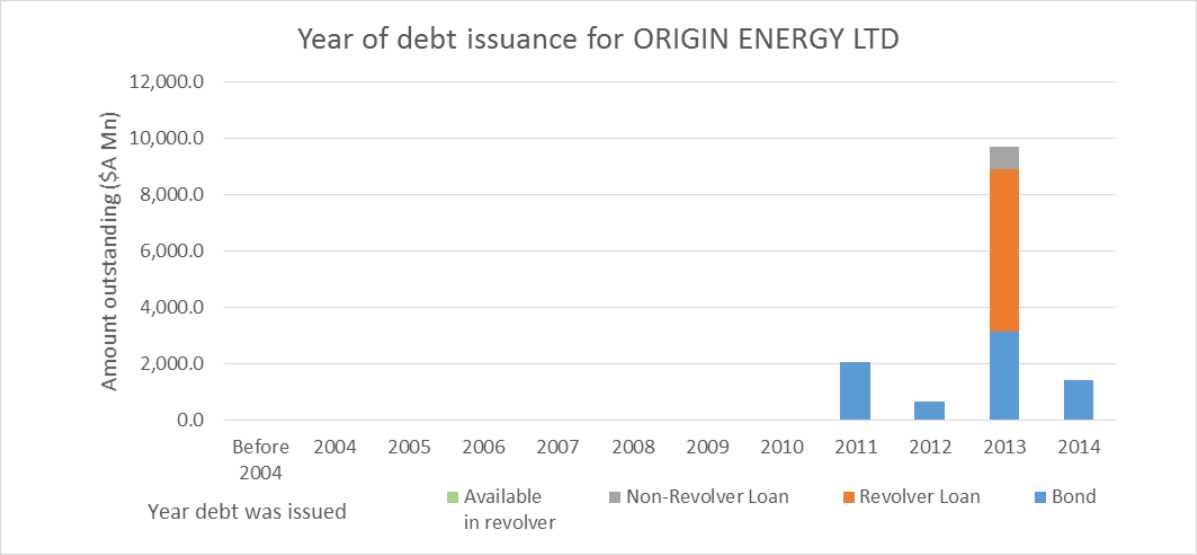
## A.1.58 NUFARM LTD

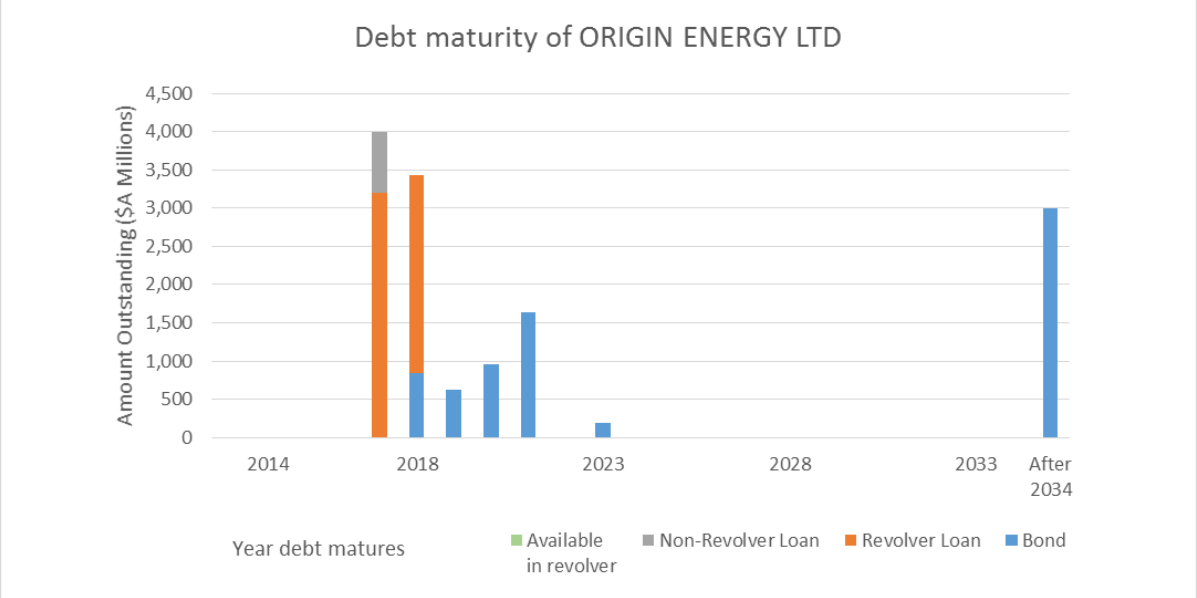



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 1 | 2 | 5 |
| Amount Outstanding ($A Mn) | 319.03 | 208.00 | 530.00 | 1,057.03 |
| Weighted average debt term | 7.03 | 3.00 | 2.96 | 4.20 |
| Simple average debt term | 3.51 | 3.00 | 4.00 | 2.81 |
| Weighted average time to maturity | 4.99 | 0.09 | 2.11 | 2.58 |
| Simple average time to maturity | 2.49 | 0.09 | 2.30 | 1.84 |

## A.1.59 ORIGIN ENERGY LTD

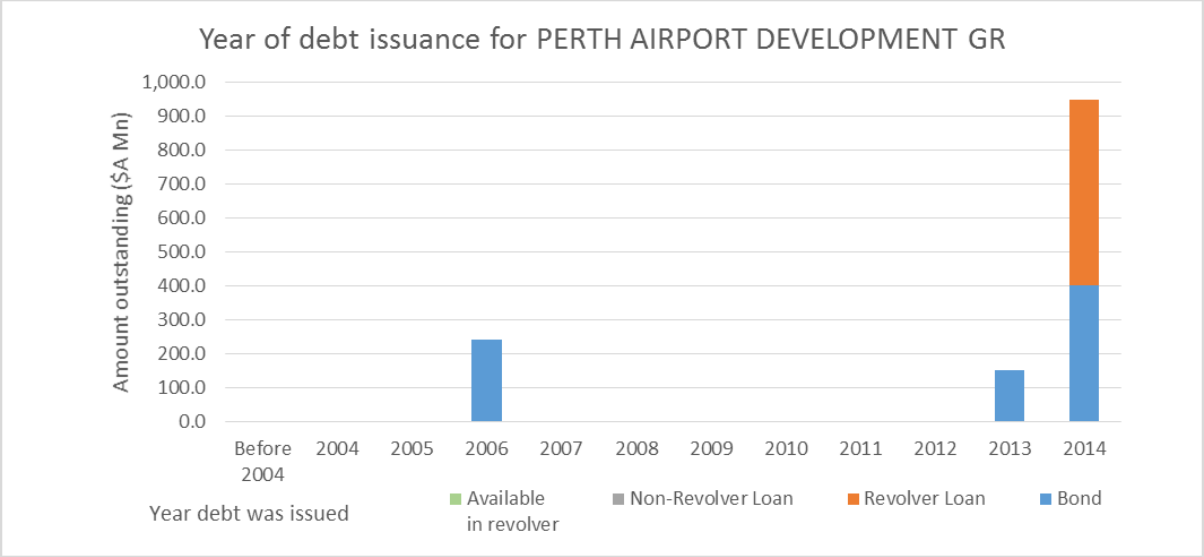


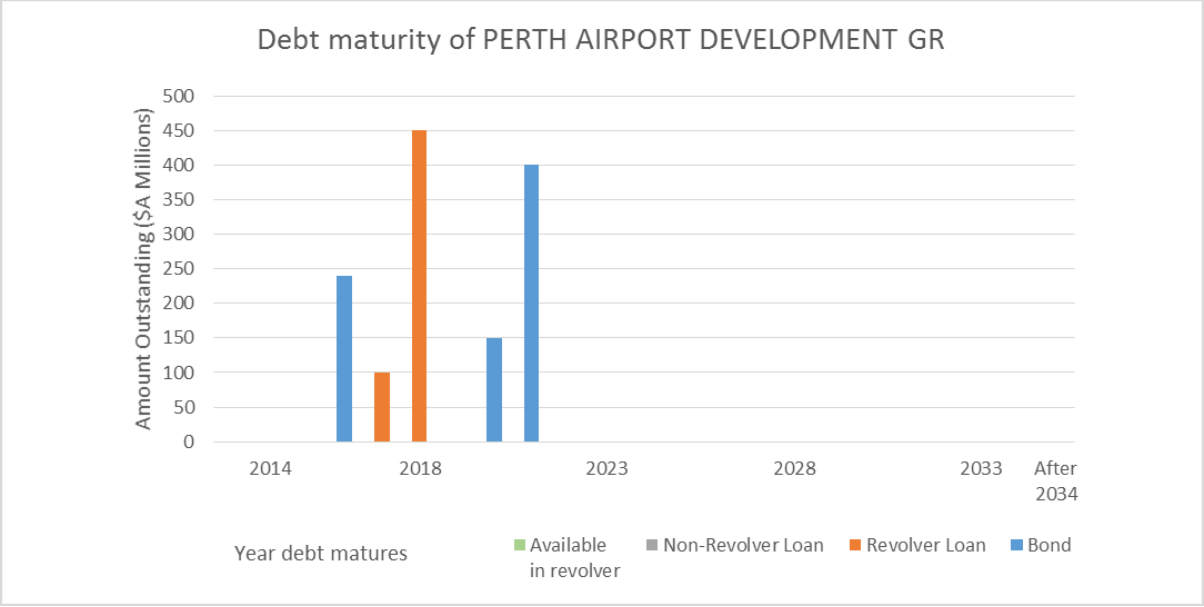




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 9 | 5 | 1 | 15 |
| Amount Outstanding ($A Mn) | 7,245.63 | 5,783.37 | 800.00 | 13,829.01 |
| Weighted average debt term | 29.20 | 4.45 | 4.00 | 17.39 |
| Simple average debt term | 25.28 | 4.20 | 0.80 | 16.83 |
| Weighted average time to maturity | 27.62 | 3.29 | 2.84 | 16.01 |
| Simple average time to maturity | 23.45 | 3.06 | 0.57 | 15.28 |

**Two bonds due in 2071 with A$ 672.68 million and A$900 million outstanding, and another due in 2074 with A$1,425.11 million outstanding.*

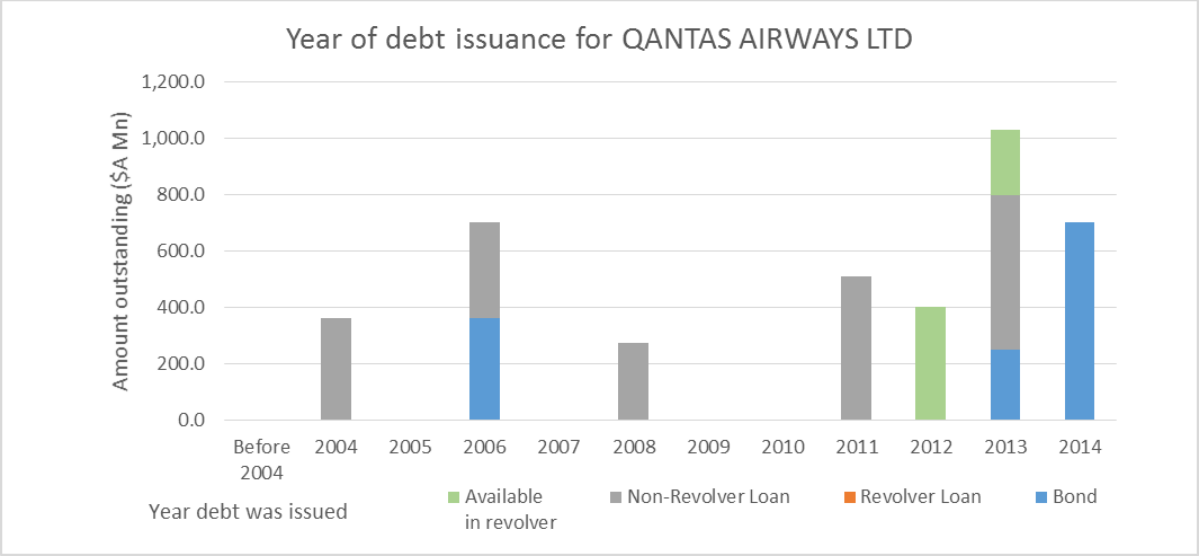
## A.1.60 PERTH AIRPORT DEVELOPMENT GROUP PTY LTD

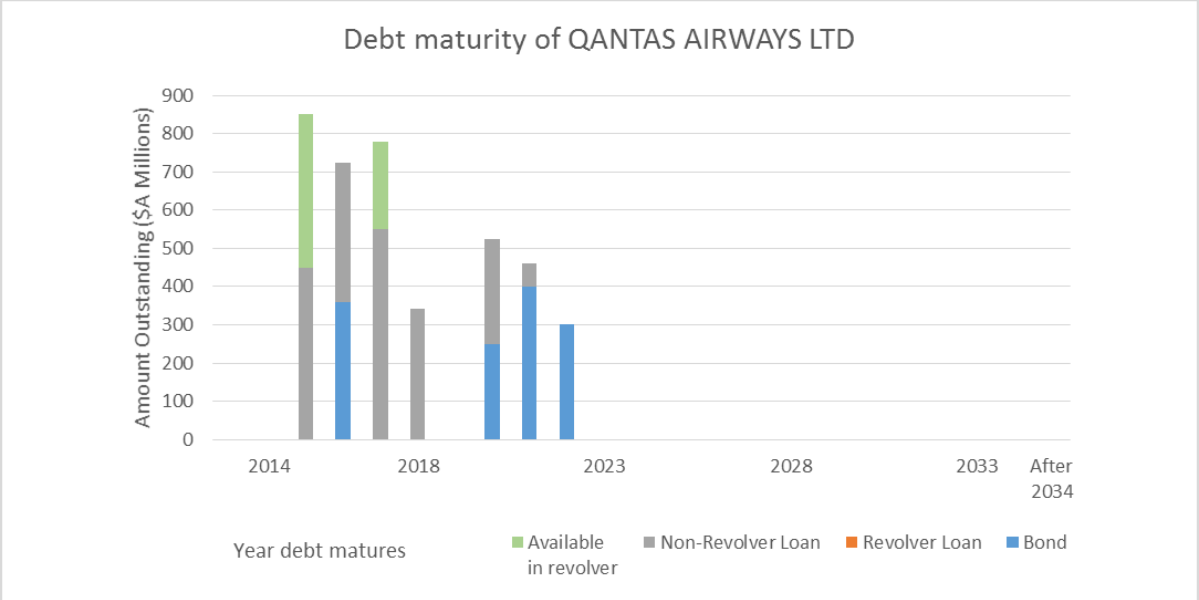



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 3 | 2 | 0 | 5 |
| Amount Outstanding ($A Mn) | 790.00 | 550.00 | 0.00 | 1,340.00 |
| Weighted average debt term | 7.90 | 3.85 | N/A | 6.24 |
| Simple average debt term | 7.99 | 3.53 | 0.00 | 6.21 |
| Weighted average time to maturity | 4.97 | 3.44 | N/A | 4.34 |
| Simple average time to maturity | 4.75 | 3.12 | 0.00 | 4.10 |

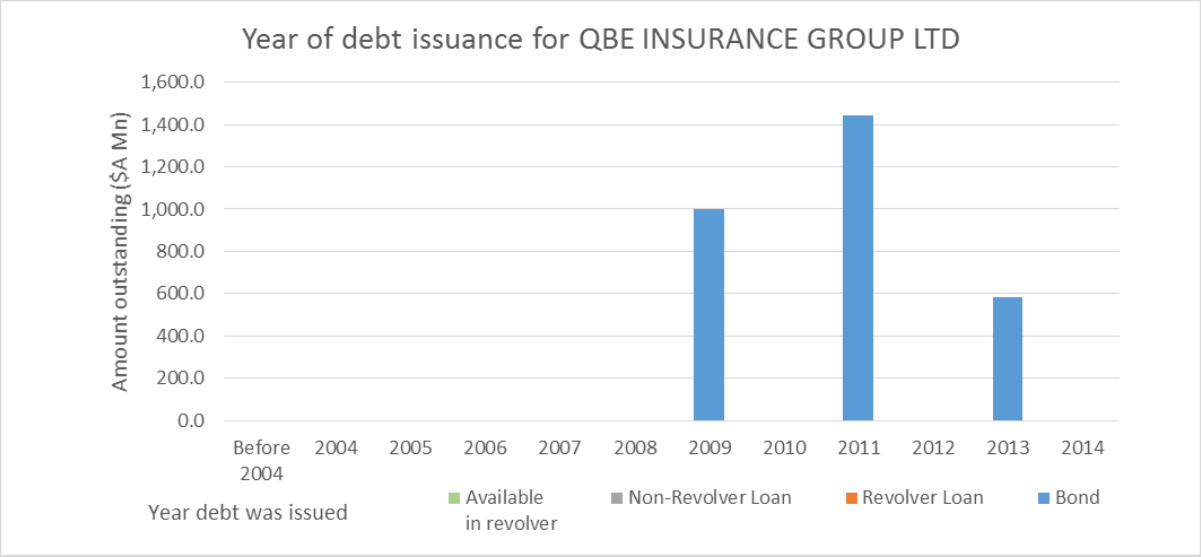
## A.1.61 QANTAS AIRWAYS LTD

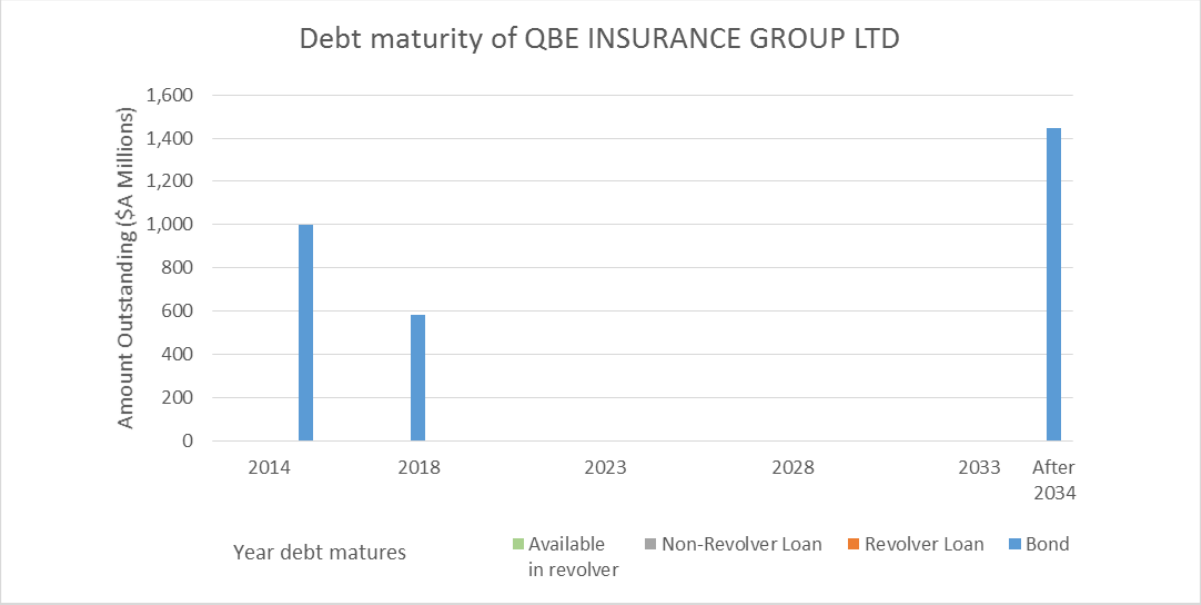



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 4 | 2 | 6 | 12 |
| Amount Outstanding ($A Mn) | 1,310.29 | 0.00 | 2,040.40 | 3,350.68 |
| Weighted average debt term | 8.06 | N/A | 8.02 | 8.04 |
| Simple average debt term | 8.01 | 3.51 | 27.02 | 7.76 |
| Weighted average time to maturity | 5.22 | N/A | 2.65 | 3.66 |
| Simple average time to maturity | 5.31 | 1.72 | 10.32 | 3.77 |

## A.1.62 QBE INSURANCE GROUP LTD

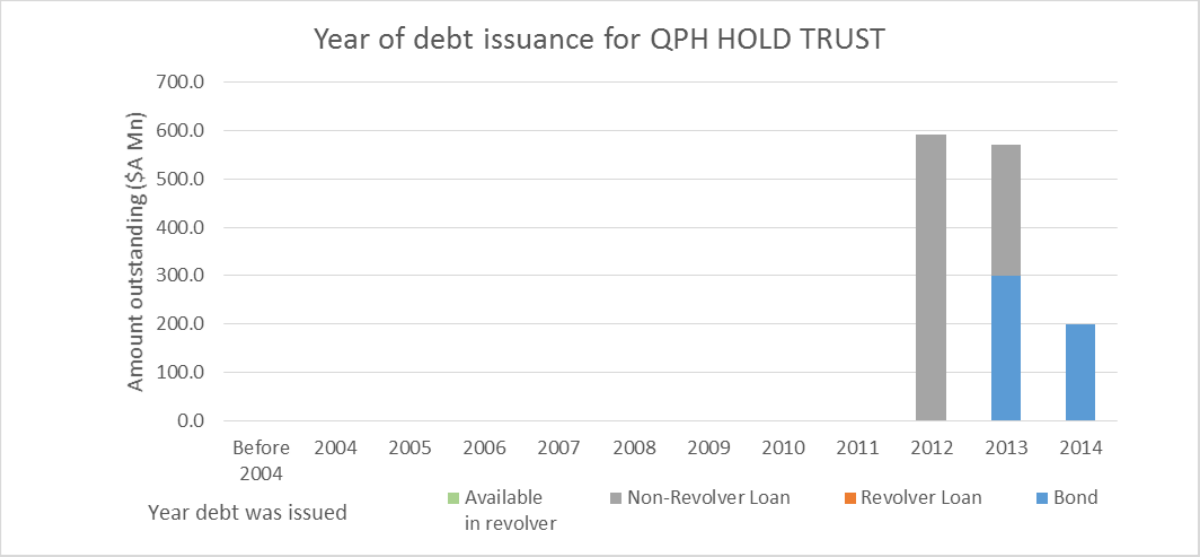


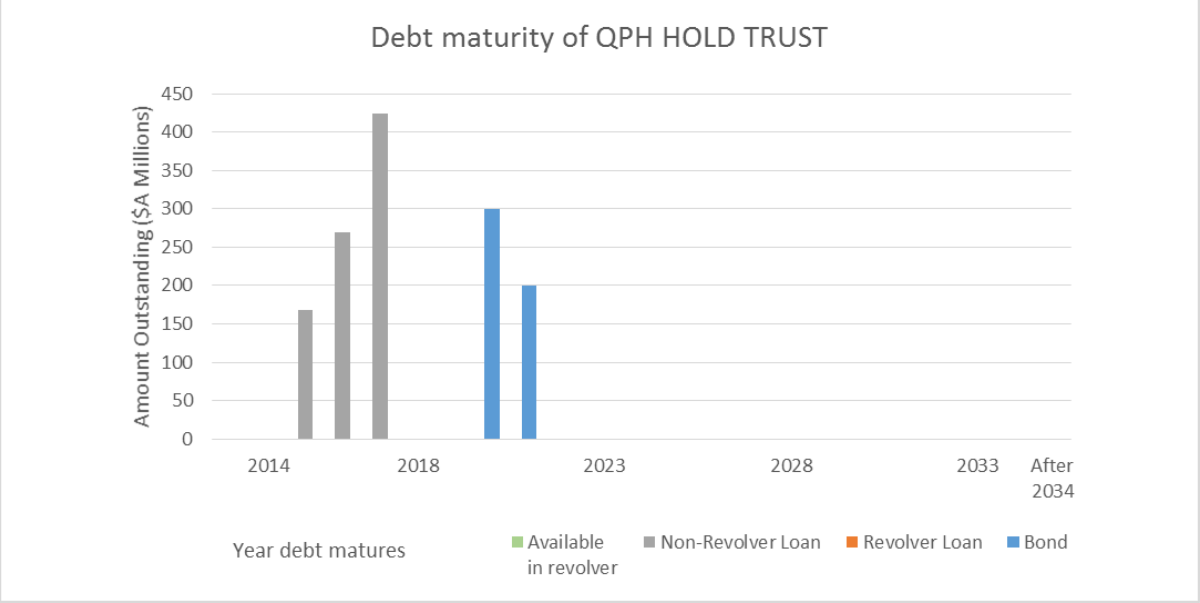




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 5 | 0 | 0 | 5 |
| Amount Outstanding ($A Mn) | 3,030.00 | 0.00 | 0.00 | 3,030.00 |
| Weighted average debt term | 17.25 | N/A | N/A | 17.25 |
| Simple average debt term | 14.20 | N/A | N/A | 14.20 |
| Weighted average time to maturity | 13.67 | N/A | N/A | 13.67 |
| Simple average time to maturity | 11.53 | N/A | N/A | 14.41 |

**Two bonds due in 2041 with A$ 947.06 million and A$ 498.06 million outstanding.*

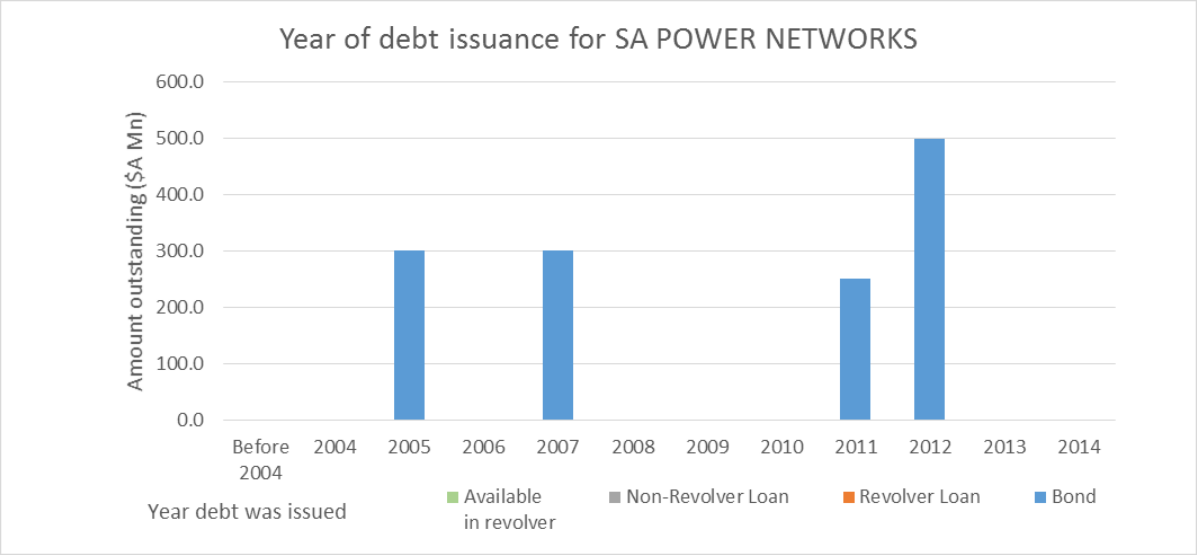
## A.1.63 QPH HOLD TRUST

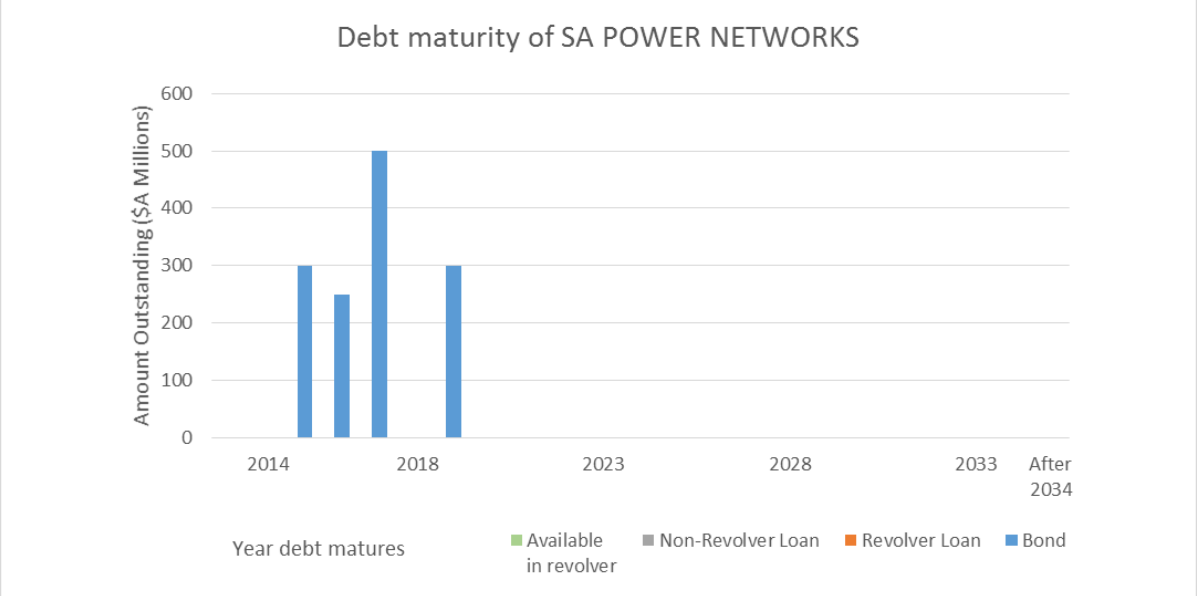



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 4 | 6 |
| Amount Outstanding ($A Mn) | 500.00 | 0.00 | 860.94 | 1,360.94 |
| Weighted average debt term | 7.00 | N/A | 4.42 | 5.37 |
| Simple average debt term | 7.00 | N/A | N/A | 4.96 |
| Weighted average time to maturity | 6.15 | N/A | 2.41 | 3.78 |
| Simple average time to maturity | 6.24 | N/A | N/A | 3.32 |

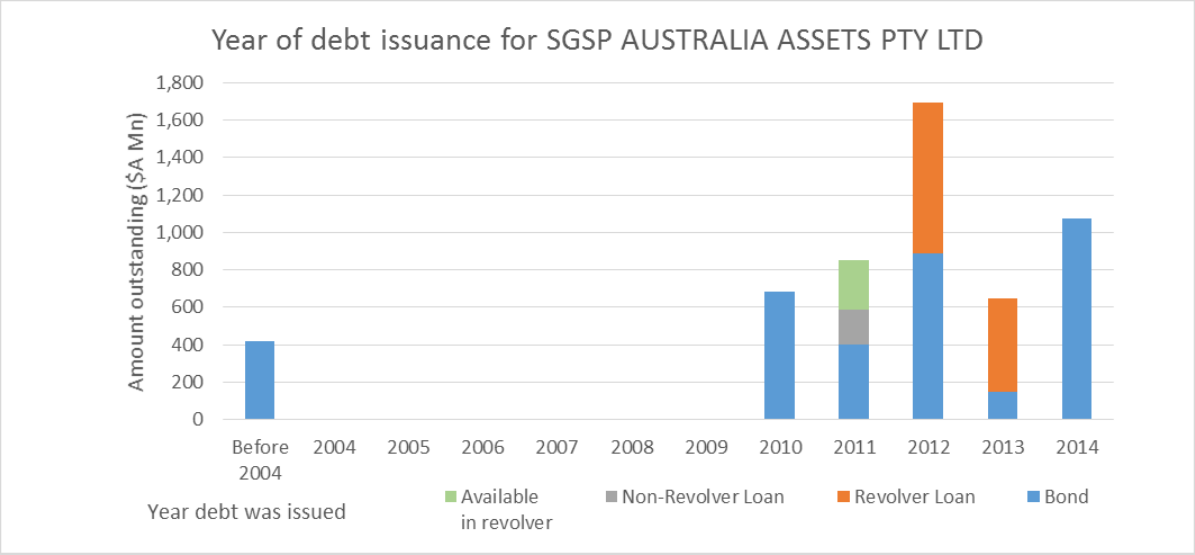
## A.1.64 SA POWER NETWORKS

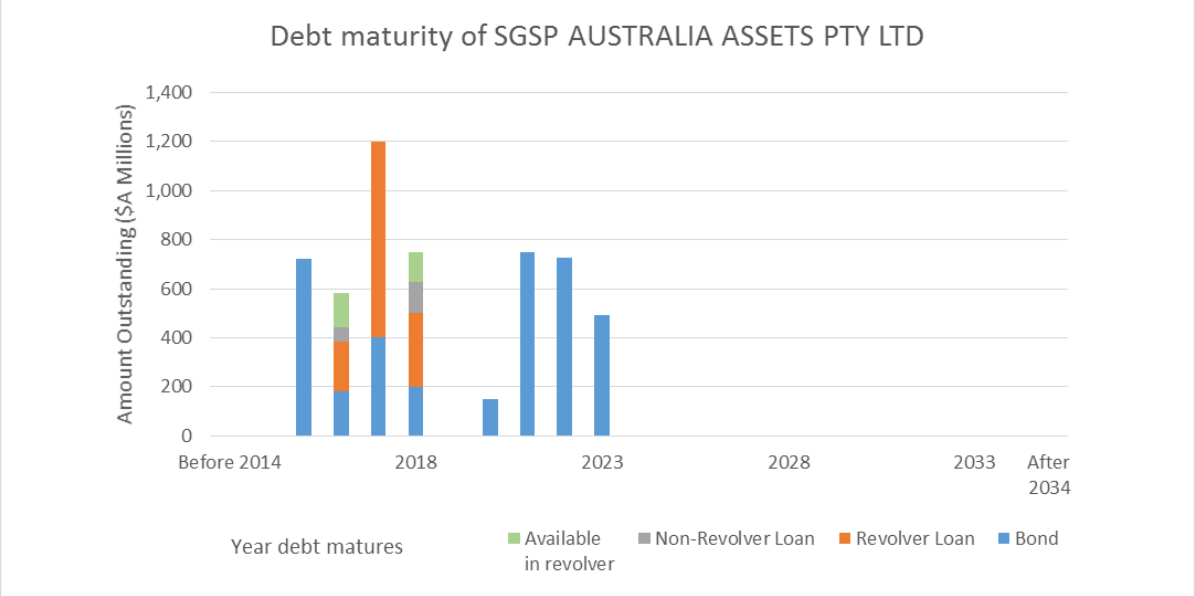



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 5 | 0 | 0 | 5 |
| Amount Outstanding ($A Mn) | 1,350.00 | 0.00 | 0.00 | 1,350.00 |
| Weighted average debt term | 7.98 | N/A | N/A | 7.98 |
| Simple average debt term | 7.67 | N/A | N/A | 7.67 |
| Weighted average time to maturity | 2.71 | N/A | N/A | 2.71 |
| Simple average time to maturity | 2.70 | N/A | N/A | 2.70 |

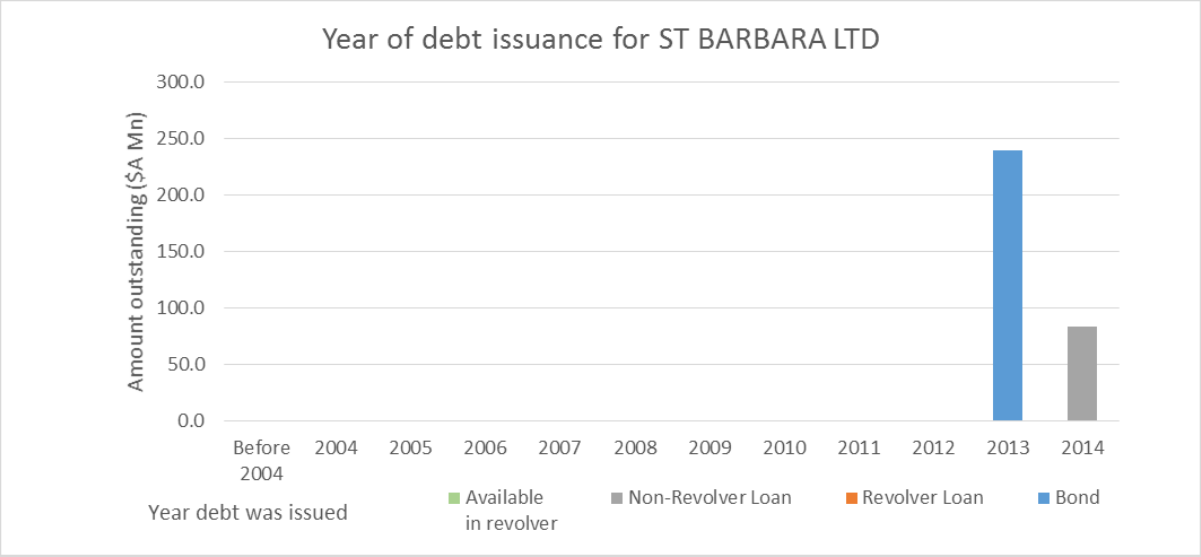
## A.1.65 SGSP AUSTRALIA ASSETS PTY LTD

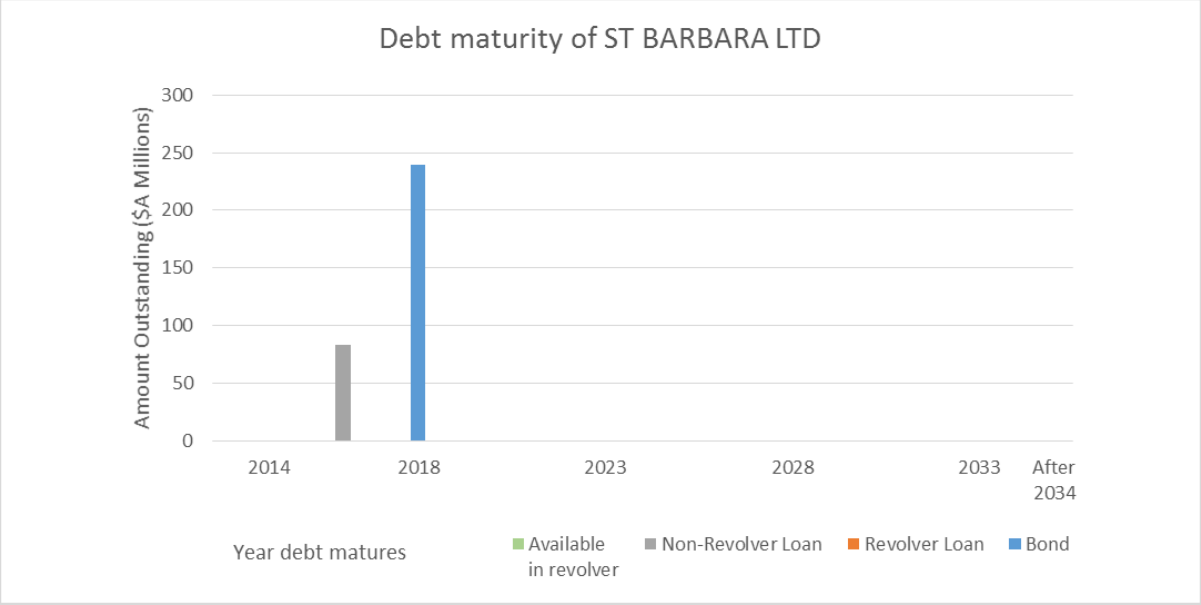



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 10 | 5 | 2 | 17 |
| Amount Outstanding ($A Mn) | 3,618.39 | 1,300.00 | 185.00 | 5,103.39 |
| Weighted average debt term | 8.48 | 4.69 | 6.35 | 7.44 |
| Simple average debt term | 9.05 | 5.00 | 2.40 | 7.50 |
| Weighted average time to maturity | 4.94 | 3.00 | 3.04 | 4.38 |
| Simple average time to maturity | 4.37 | 2.95 | 1.13 | 3.77 |

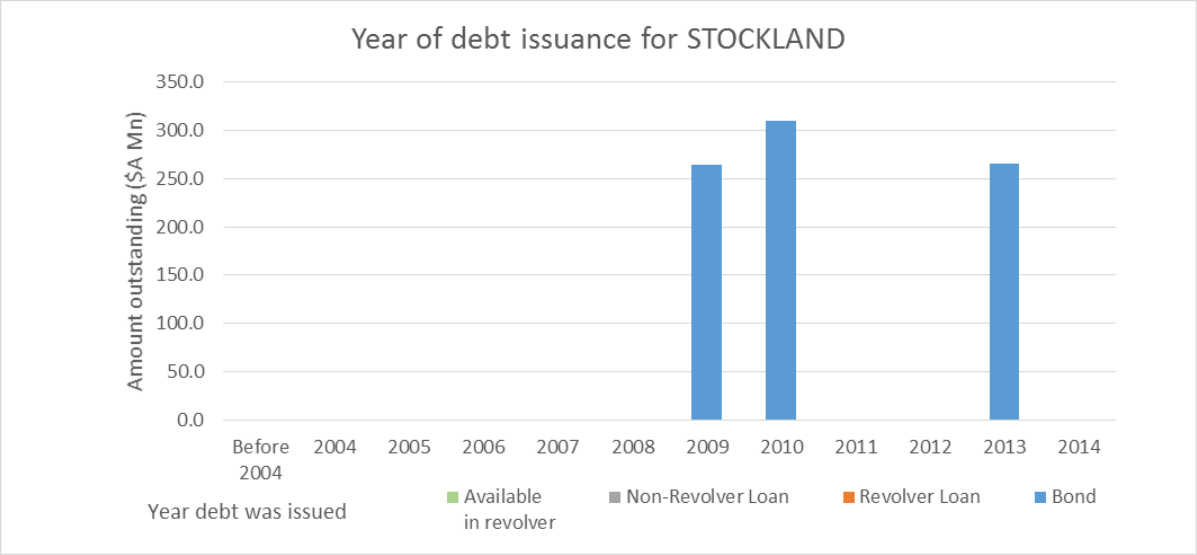
## A.1.66 ST BARBARA LTD

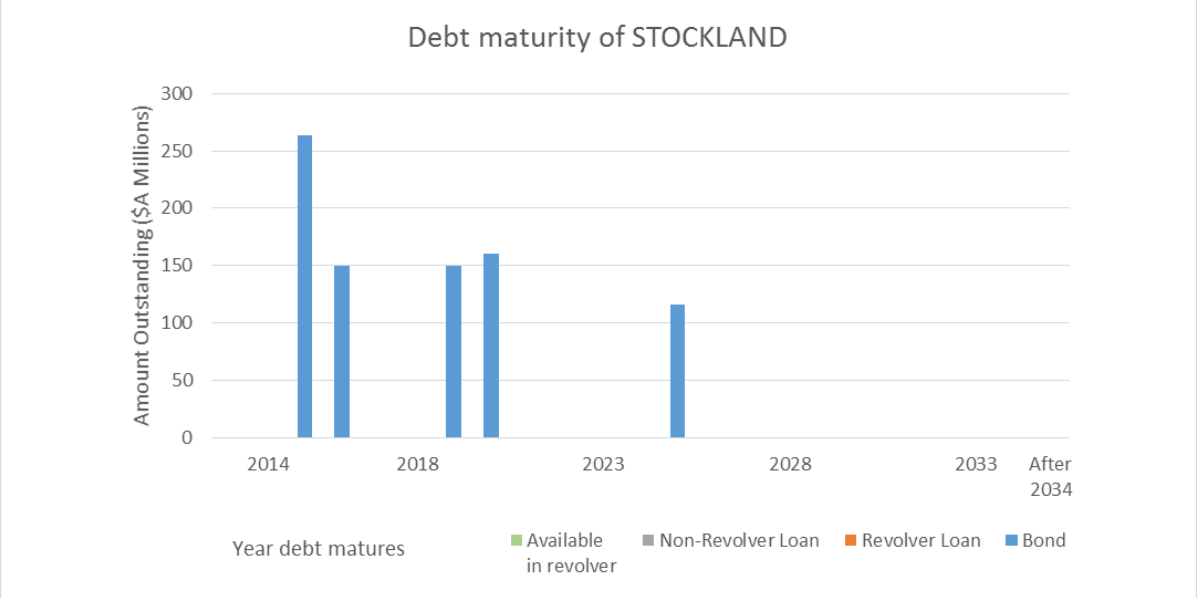



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 0 | 2 | 3 |
| Amount Outstanding ($A Mn) | 239.37 | 0.00 | 83.16 | 322.53 |
| Weighted average debt term | 5.05 | N/A | 2.85 | 4.48 |
| Simple average debt term | 5.05 | N/A | N/A | 3.58 |
| Weighted average time to maturity | 3.49 | N/A | 2.20 | 3.15 |
| Simple average time to maturity | 3.49 | N/A | N/A | 2.63 |

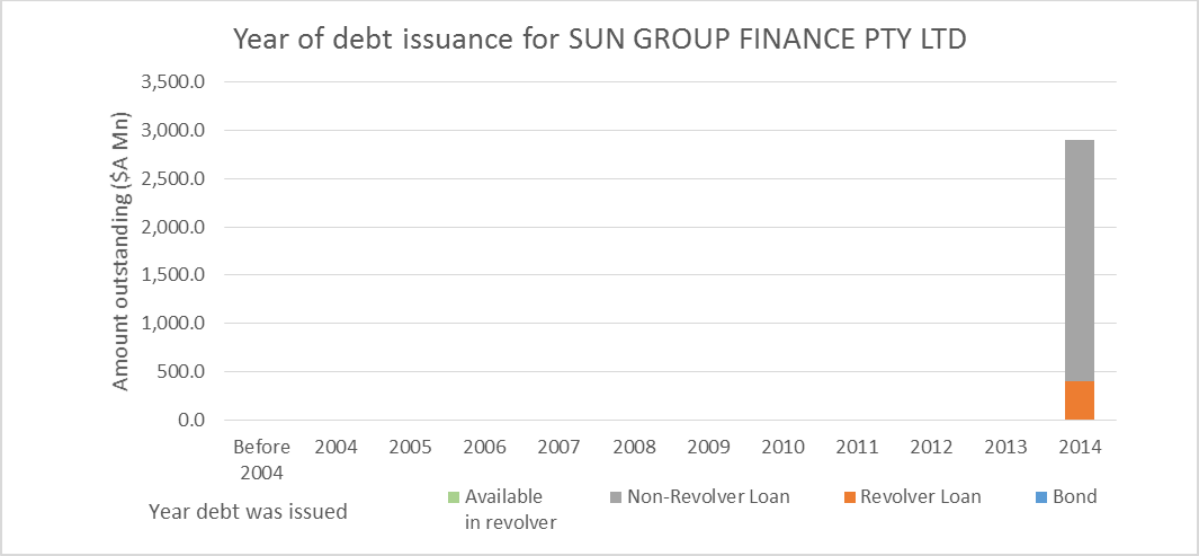
## A.1.67 STOCKLAND

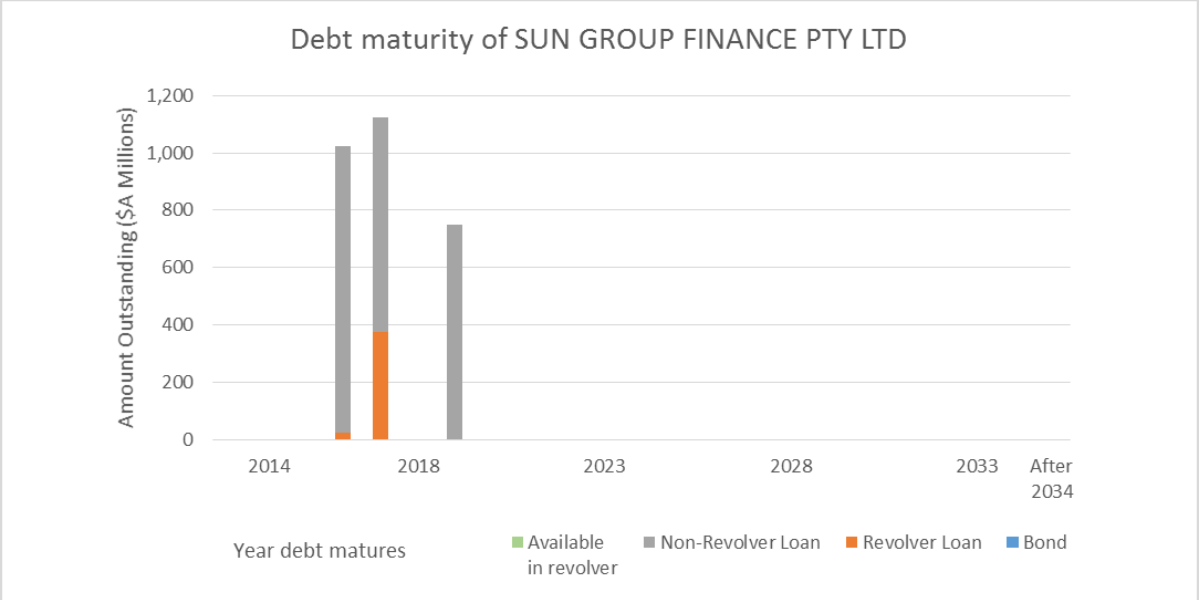



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 6 | 0 | 0 | 6 |
| Amount Outstanding ($A Mn) | 839.81 | 0.00 | 0.00 | 839.81 |
| Weighted average debt term | 7.25 | N/A | N/A | 7.25 |
| Simple average debt term | 8.45 | N/A | N/A | 8.45 |
| Weighted average time to maturity | 3.93 | N/A | N/A | 3.93 |
| Simple average time to maturity | 5.77 | N/A | N/A | 5.77 |

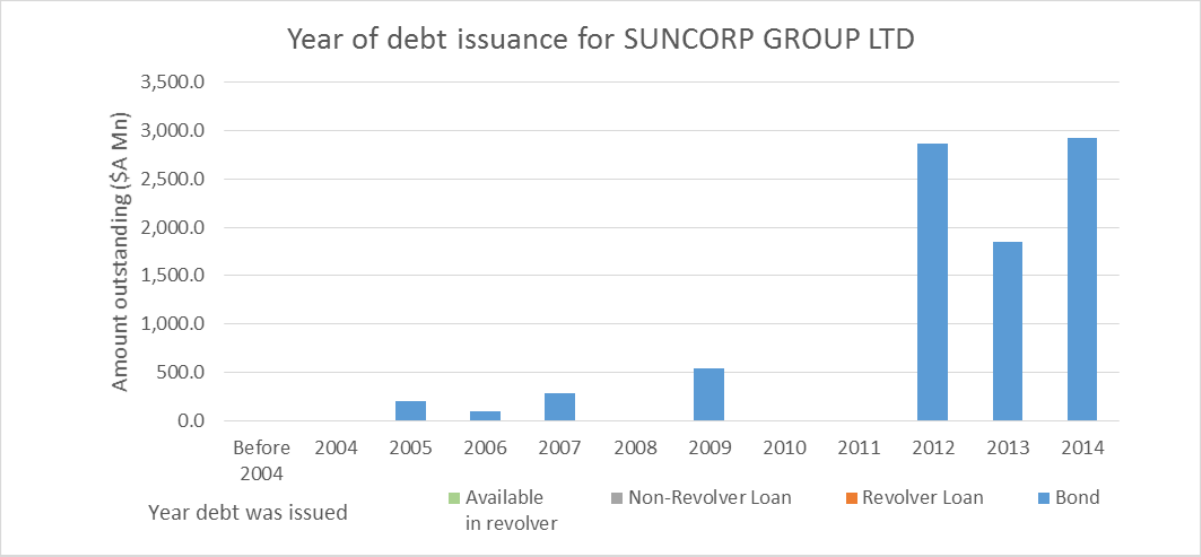
## A.1.68 SUN GROUP FINANCE PTY LTD

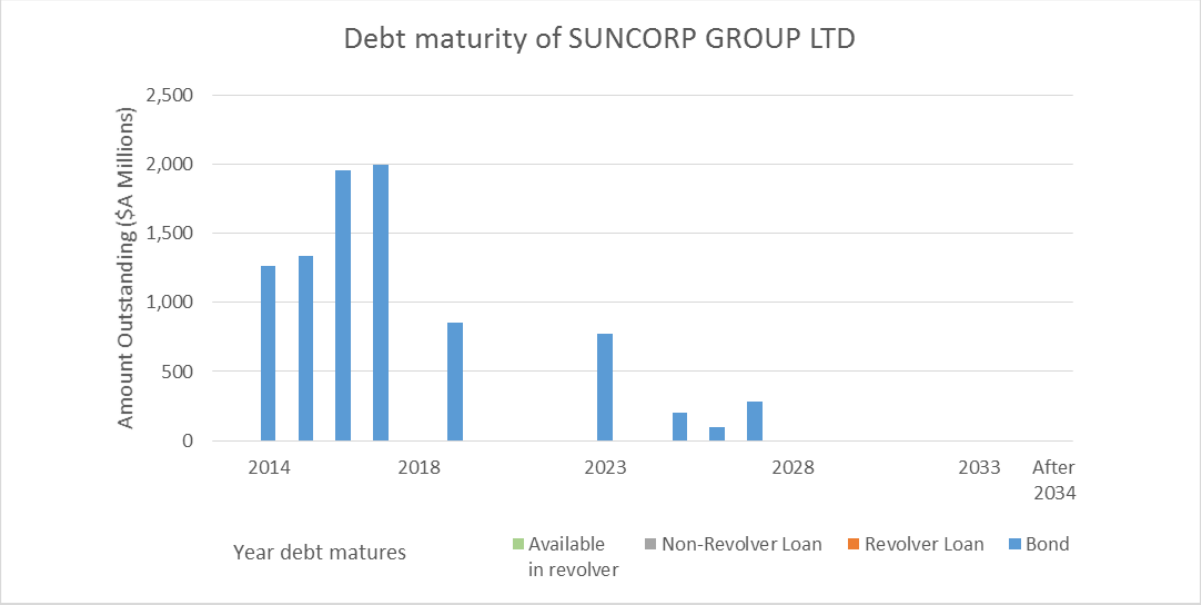



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 0 | 2 | 3 | 5 |
| Amount Outstanding ($A Mn) | 0.00 | 400.00 | 2,500.00 | 2,900.00 |
| Weighted average debt term | N/A | 2.90 | 3.16 | 3.13 |
| Simple average debt term | N/A | 2.47 | 4.95 | 2.97 |
| Weighted average time to maturity | N/A | 2.64 | 2.90 | 2.86 |
| Simple average time to maturity | N/A | 2.20 | 4.55 | 2.70 |

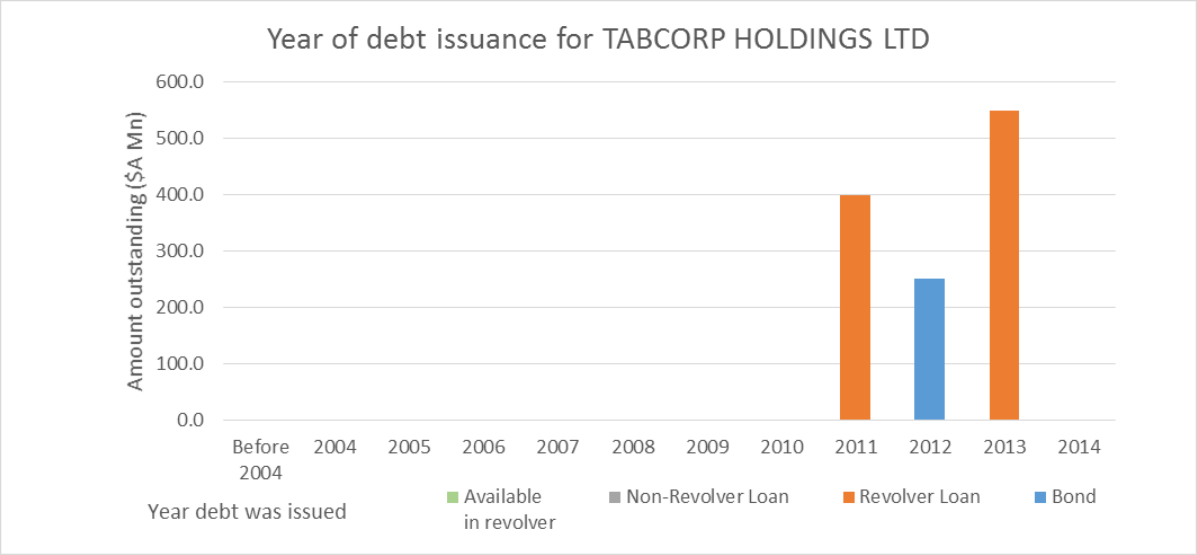
## A.1.69 SUNCORP GROUP LTD

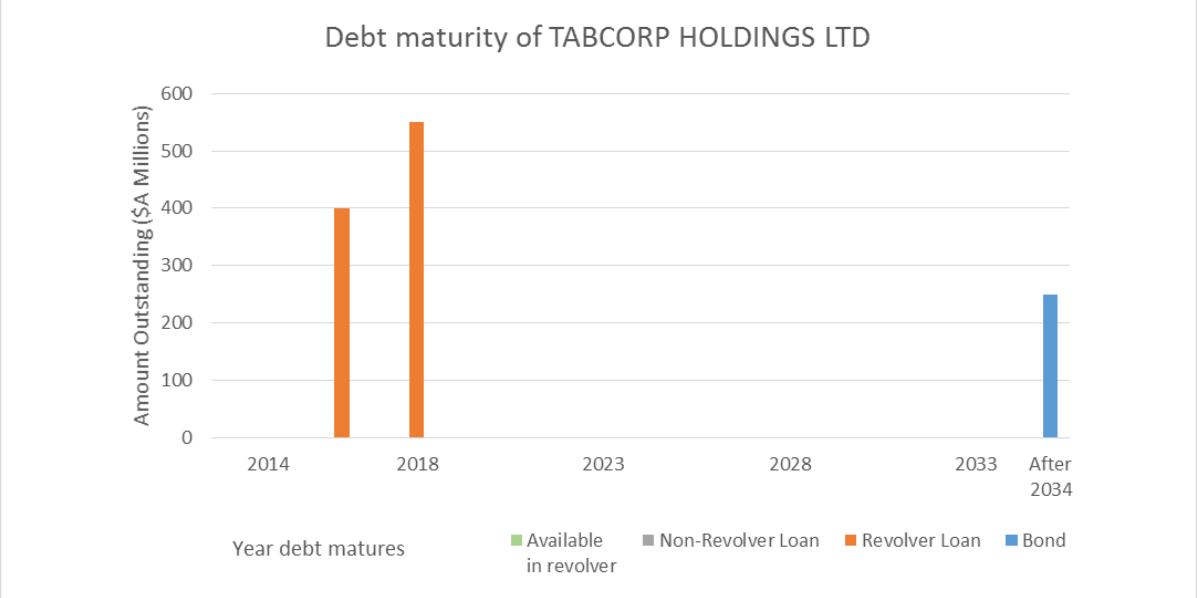



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 28 | 0 | 0 | 28 |
| Amount Outstanding ($A Mn) | 8,761.31 | 0.00 | 0.00 | 8,761.31 |
| Weighted average debt term | 5.22 | N/A | N/A | 5.22 |
| Simple average debt term | 5.38 | N/A | N/A | 5.38 |
| Weighted average time to maturity | 3.19 | N/A | N/A | 3.19 |
| Simple average time to maturity | 3.20 | N/A | N/A | 3.32 |

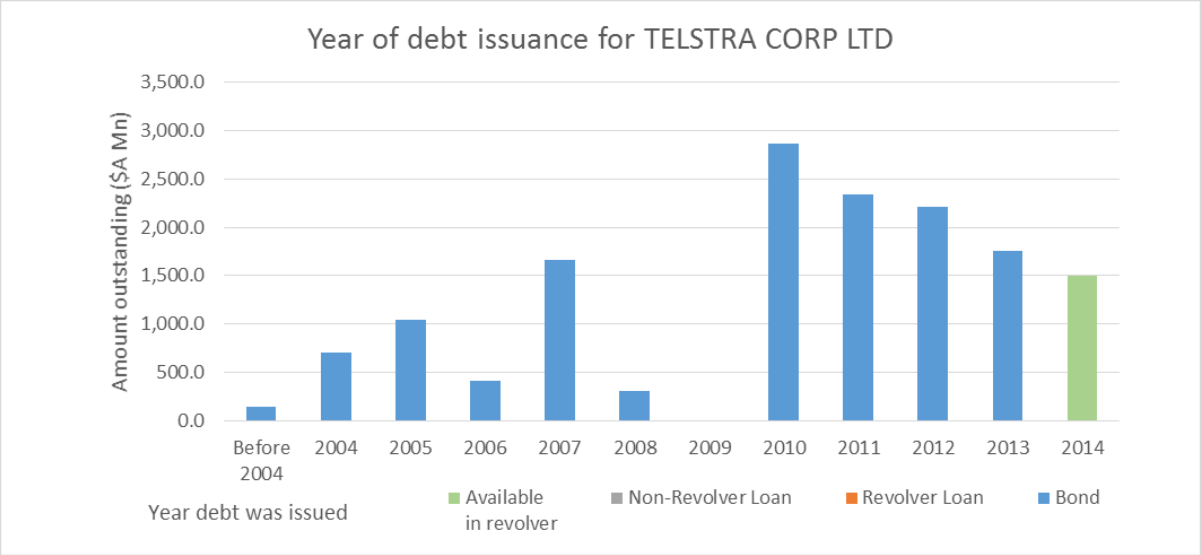
## A.1.70 TABCORP HOLDINGS LTD

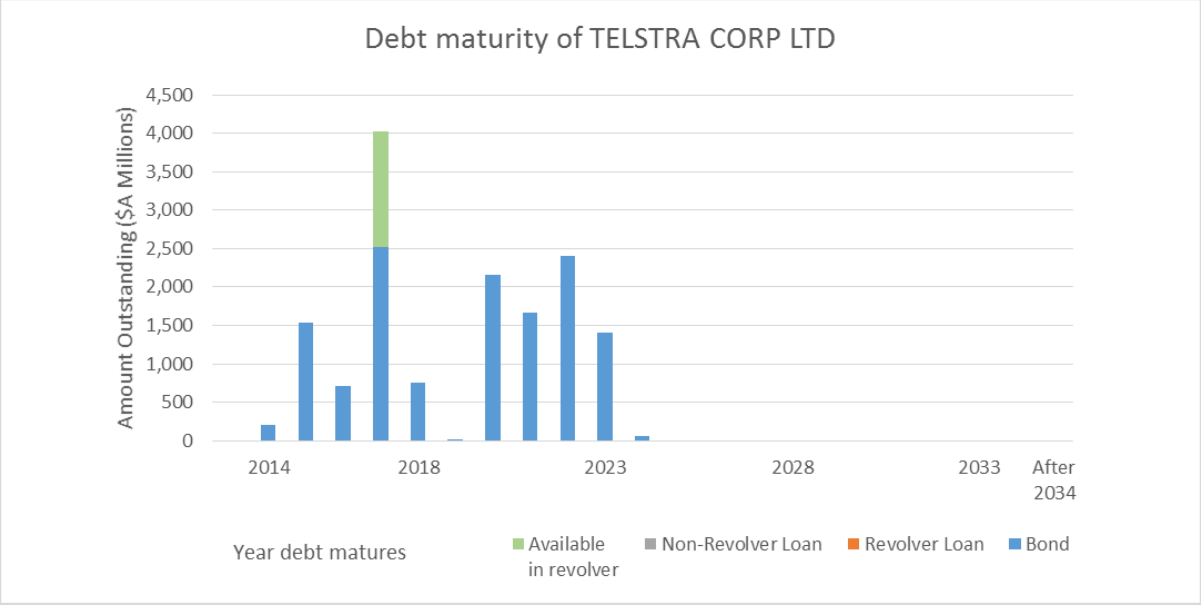



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 3 | 0 | 4 |
| Amount Outstanding ($A Mn) | 250.00 | 950.00 | 0.00 | 1,200.00 |
| Weighted average debt term | 25.00 | 4.89 | N/A | 9.08 |
| Simple average debt term | 25.00 | 4.91 | 0.00 | 9.93 |
| Weighted average time to maturity | 22.42 | 2.89 | N/A | 6.96 |
| Simple average time to maturity | 22.42 | 3.15 | 0.00 | 7.97 |

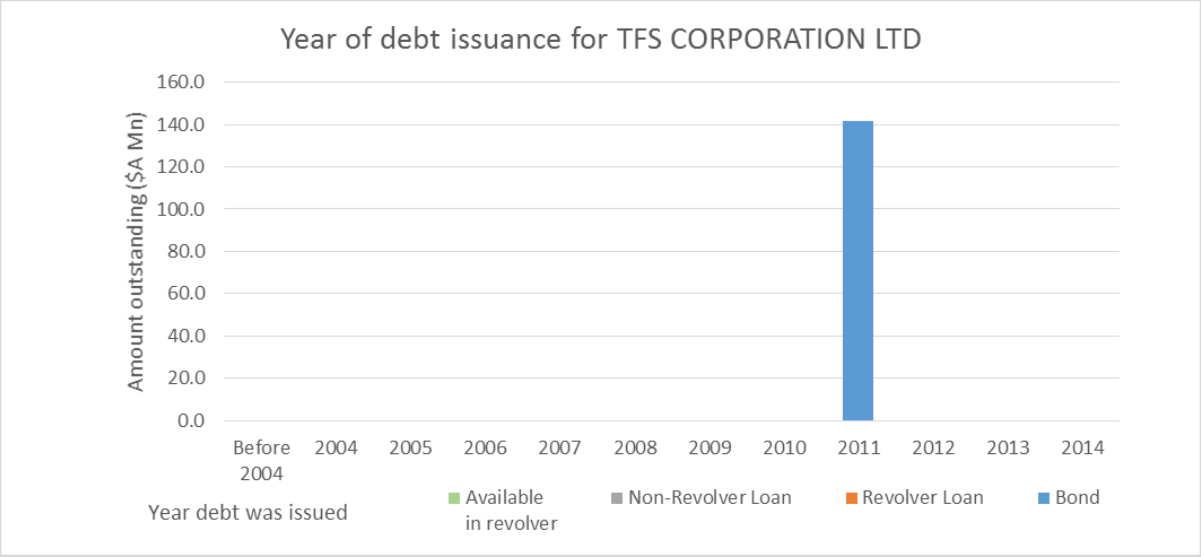
## A.1.71 TELSTRA CORP LTD

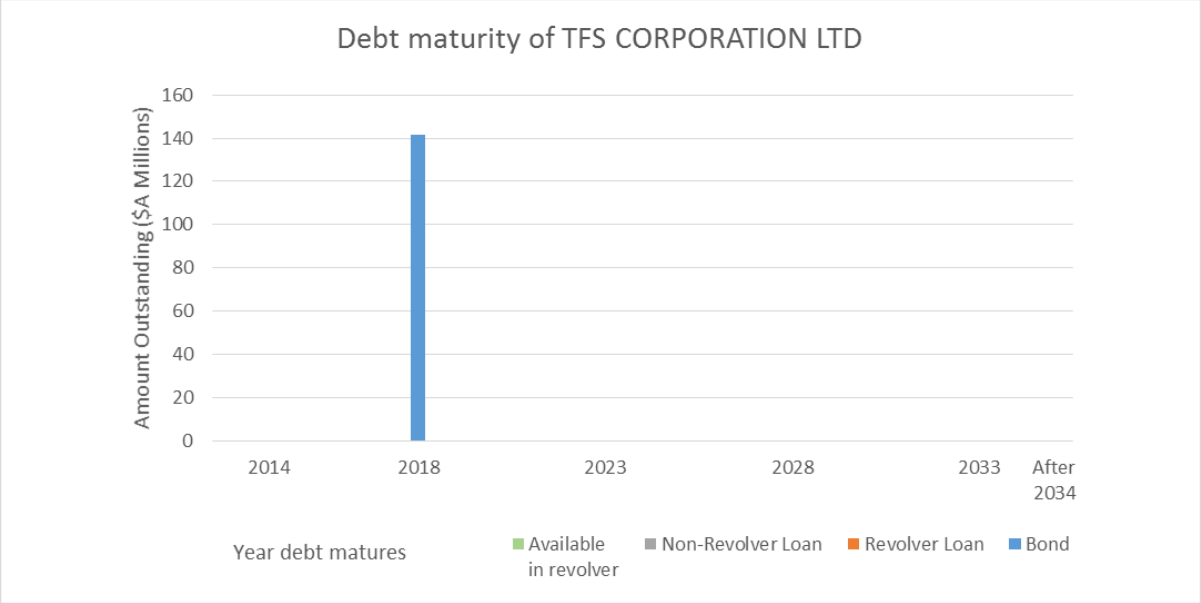



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 38 | 1 | 0 | 39 |
| Amount Outstanding ($A Mn) | 13,432.26 | 0.00 | 0.00 | 13,432.26 |
| Weighted average debt term | 9.82 | N/A | N/A | 9.82 |
| Simple average debt term | 13.55 | 3.00 | 0.00 | 13.28 |
| Weighted average time to maturity | 5.00 | N/A | N/A | 5.00 |
| Simple average time to maturity | 4.30 | 2.72 | 0.00 | 4.26 |

## A.1.72 TFS CORPORATION LTD

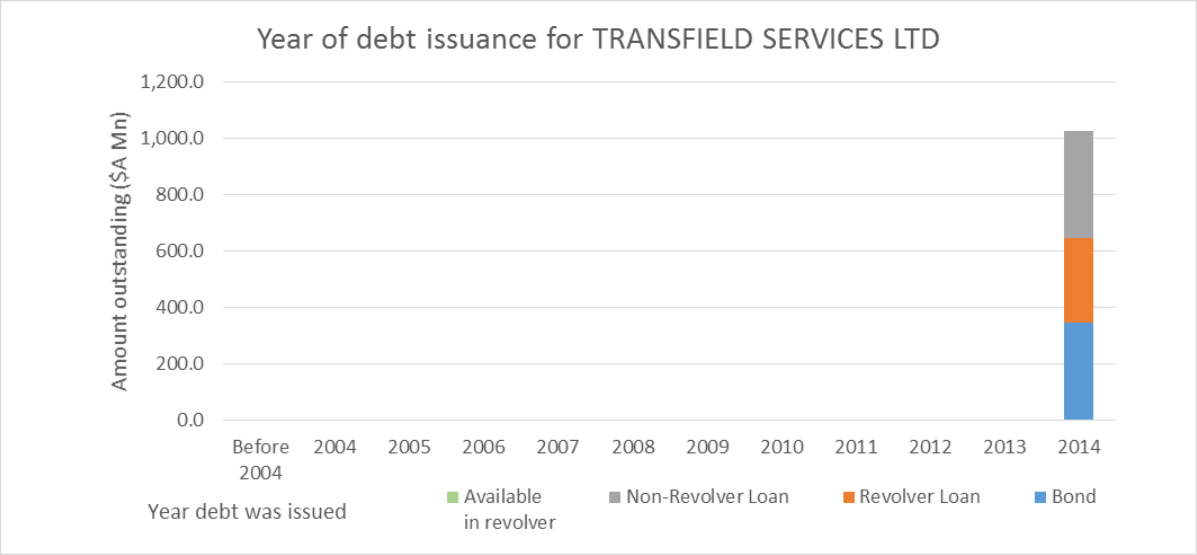


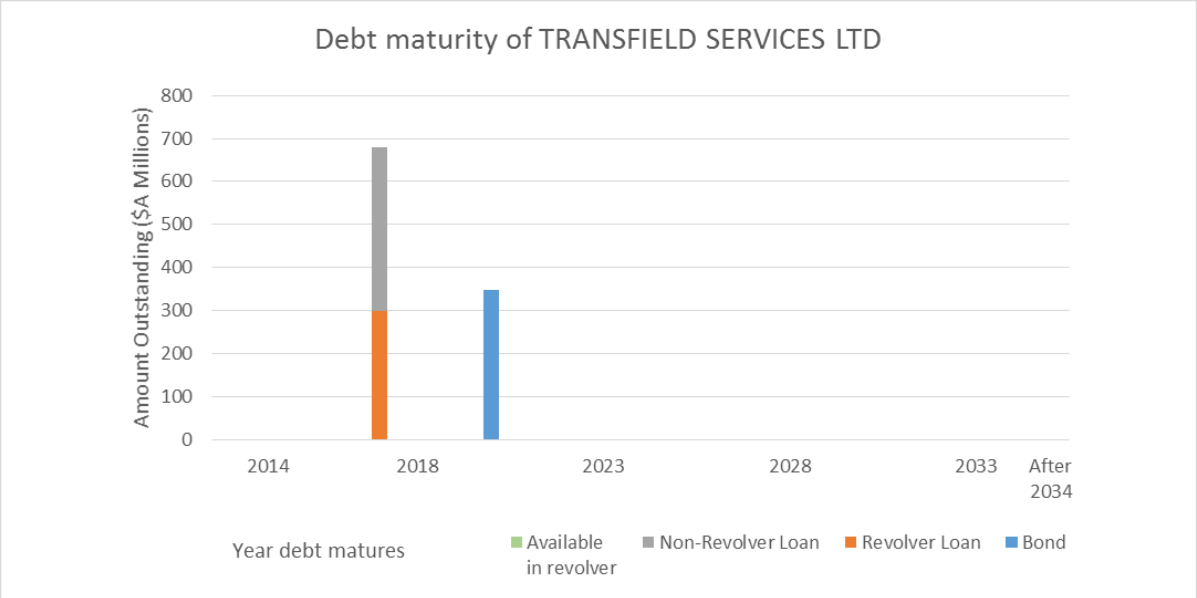




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 0 | 0 | 1 |
| Amount Outstanding ($A Mn) | 141.44 | 0.00 | 0.00 | 141.44 |
| Weighted average debt term | 7.07 | N/A | N/A | 7.07 |
| Simple average debt term | 7.07 | N/A | N/A | 7.07 |
| Weighted average time to maturity | 3.73 | N/A | N/A | 3.73 |
| Simple average time to maturity | 3.73 | N/A | N/A | 3.73 |

**TFS Corporation Ltd has a B credit rating and a low debt-to-equity ratio of 34.14%.*

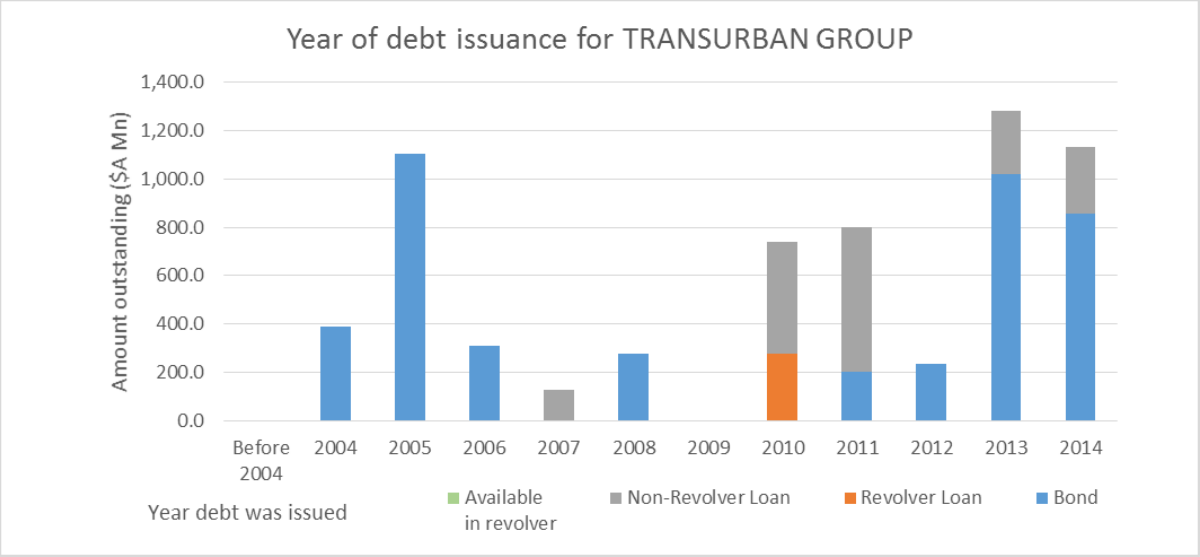
## A.1.73 TRANSFIELD SERVICES LTD

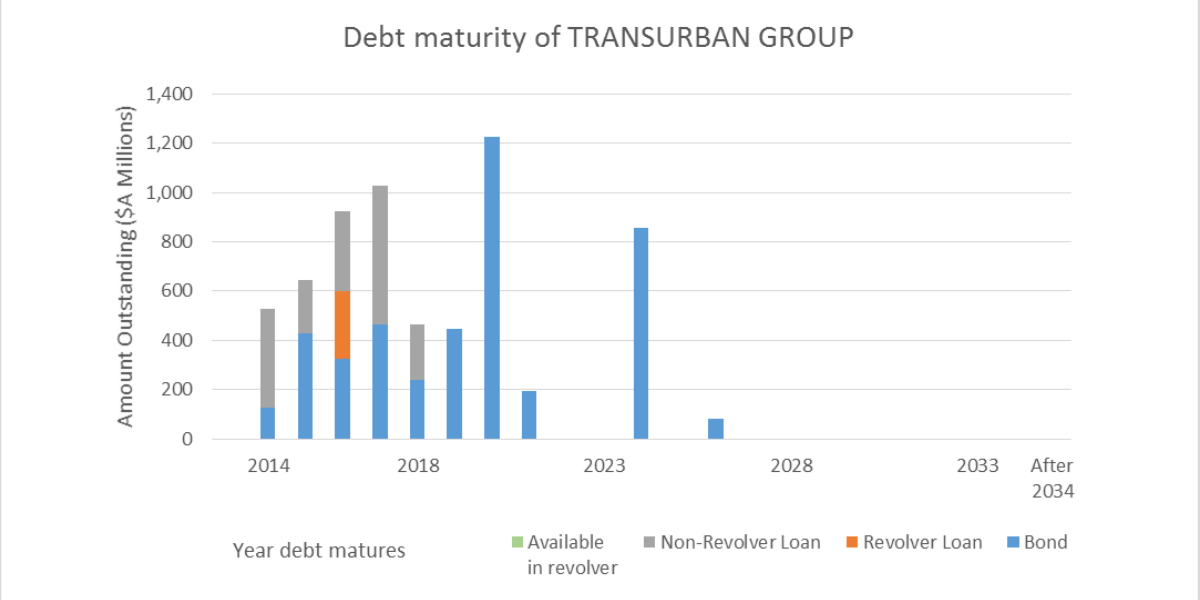



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 4 | 2 | 7 |
| Amount Outstanding ($A Mn) | 347.22 | 297.55 | 381.20 | 1,025.97 |
| Weighted average debt term | 6.01 | 3.13 | 3.13 | 4.11 |
| Simple average debt term | 6.01 | 3.13 | 1.57 | 3.54 |
| Weighted average time to maturity | 5.57 | 2.70 | 2.70 | 3.67 |
| Simple average time to maturity | 5.57 | 2.70 | 1.35 | 3.11 |

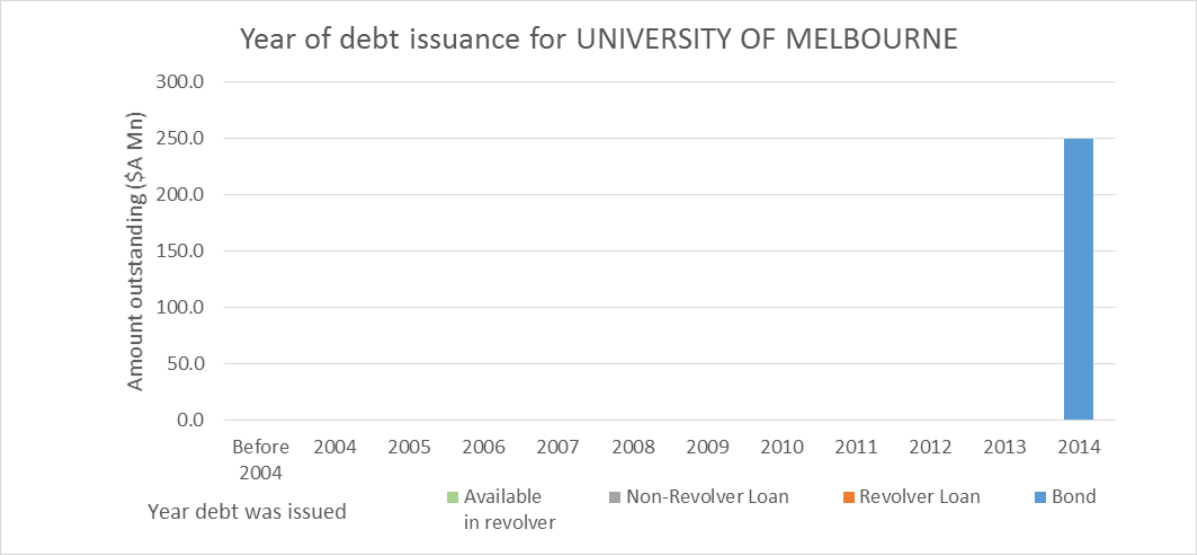
## A.1.74 TRANSURBAN GROUP

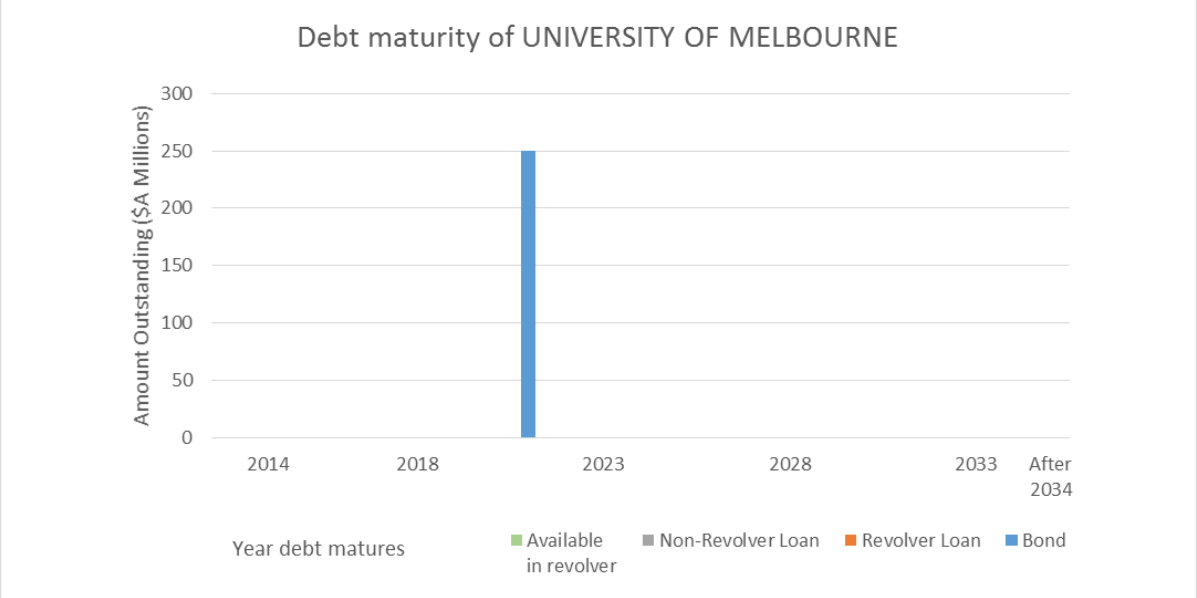



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 18 | 1 | 8 | 27 |
| Amount Outstanding ($A Mn) | 4,390.20 | 275.00 | 1,726.52 | 6,391.72 |
| Weighted average debt term | 10.03 | 6.00 | 4.61 | 8.39 |
| Simple average debt term | 11.13 | 6.00 | 41.46 | 9.18 |
| Weighted average time to maturity | 5.40 | 2.08 | 1.73 | 4.27 |
| Simple average time to maturity | 4.43 | 2.08 | 15.76 | 3.62 |

## A.1.75 UNIVERSITY OF MELBOURNE

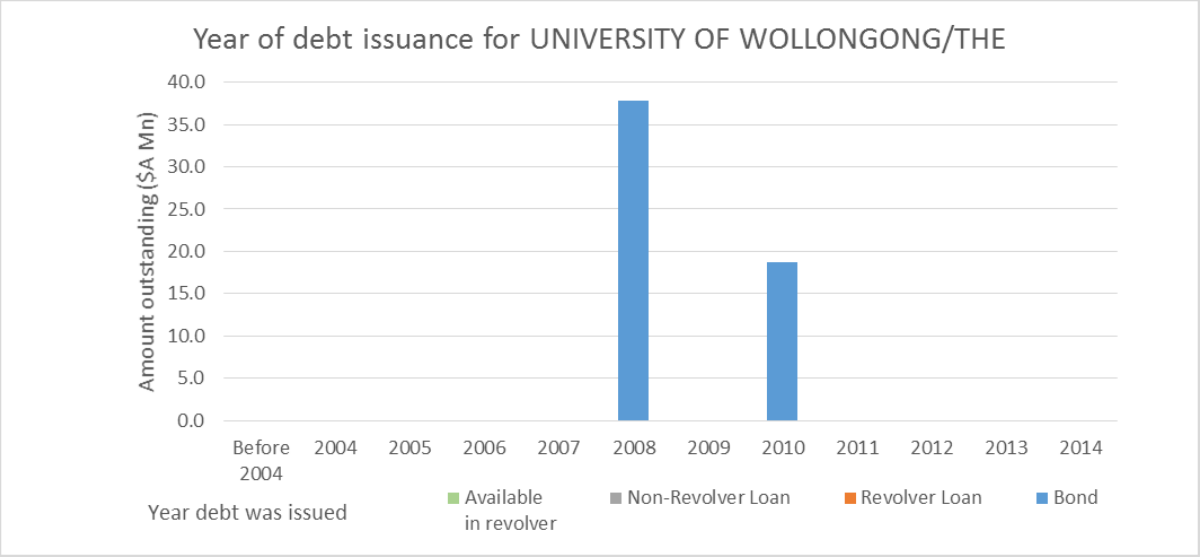


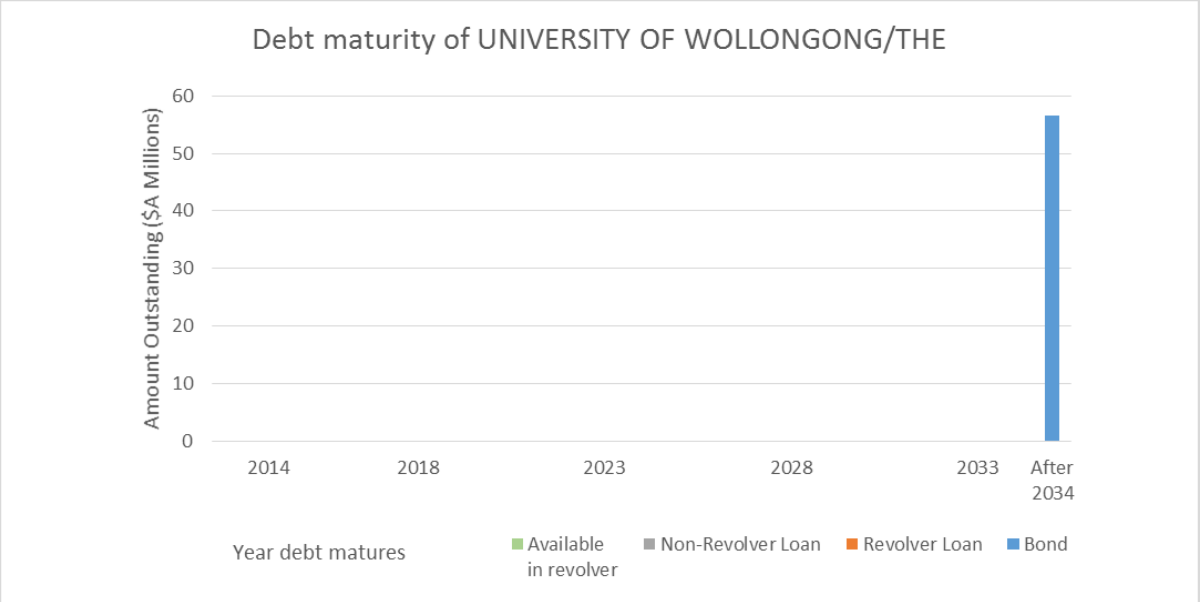




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 1 | 0 | 0 | 1 |
| Amount Outstanding ($A Mn) | 250.00 | 0.00 | 0.00 | 250.00 |
| Weighted average debt term | 7.00 | N/A | N/A | 7.00 |
| Simple average debt term | 7.00 | N/A | N/A | 7.00 |
| Weighted average time to maturity | 6.69 | N/A | N/A | 6.69 |
| Simple average time to maturity | 6.69 | N/A | N/A | 6.69 |

**University of Melbourne has a AA+ credit rating. No debt-to-equity ratio available.*

## A.1.76 THE UNIVERSITY OF WOLLONGONG

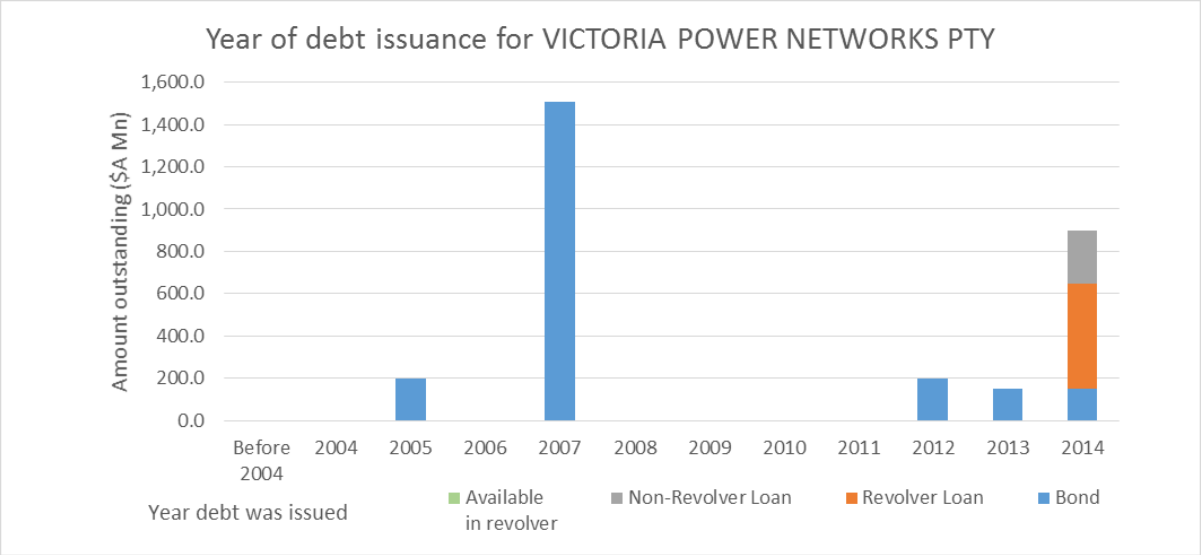


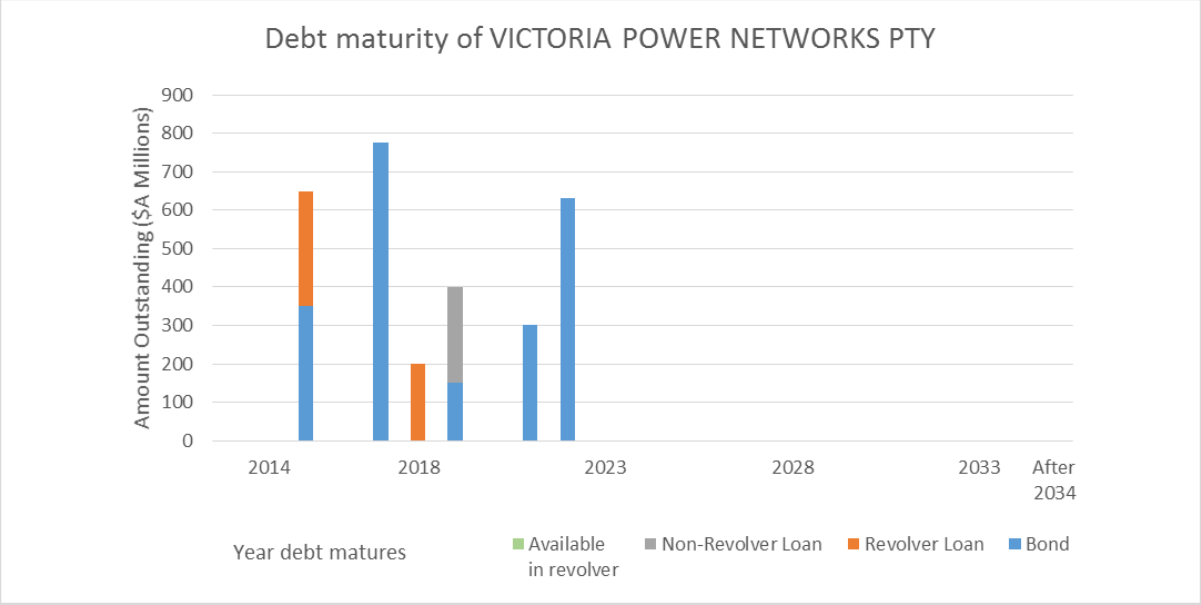




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 2 | 0 | 0 | 2 |
| Amount Outstanding ($A Mn) | 56.59 | 0.00 | 0.00 | 56.59 |
| Weighted average debt term | 28.34 | N/A | N/A | 28.34 |
| Simple average debt term | 27.50 | N/A | N/A | 27.50 |
| Weighted average time to maturity | 22.92 | N/A | N/A | 22.92 |
| Simple average time to maturity | 22.48 | N/A | N/A | 22.48 |

**One bond due in 2035 with A$ 18.78 million outstanding, and another due in 2038 with A$37.81 million outstanding.*

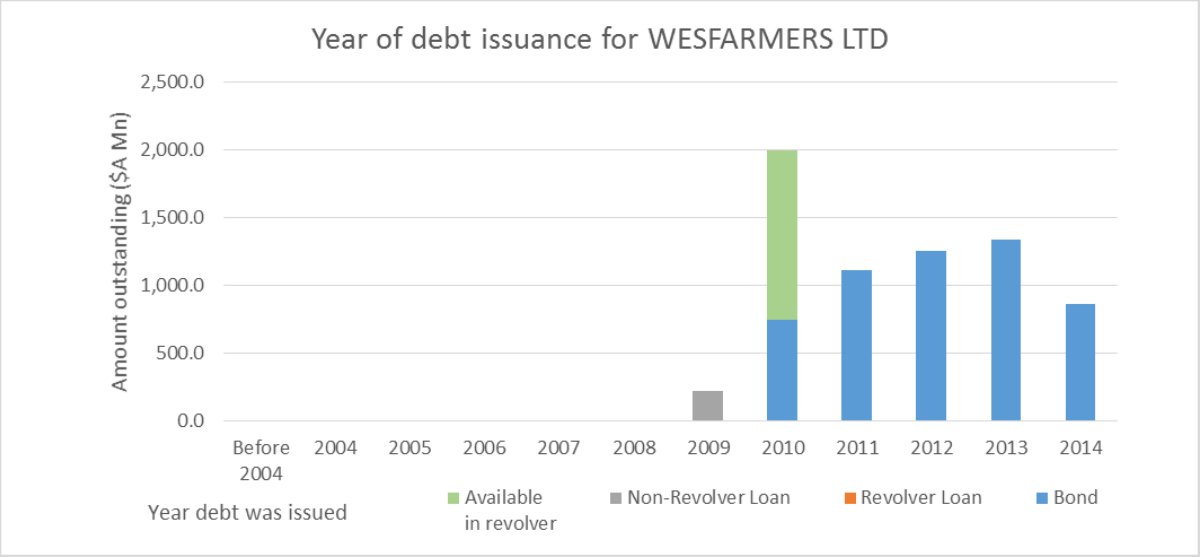
## A.1.77 VICTORIA POWER NETWORKS PTY LTD

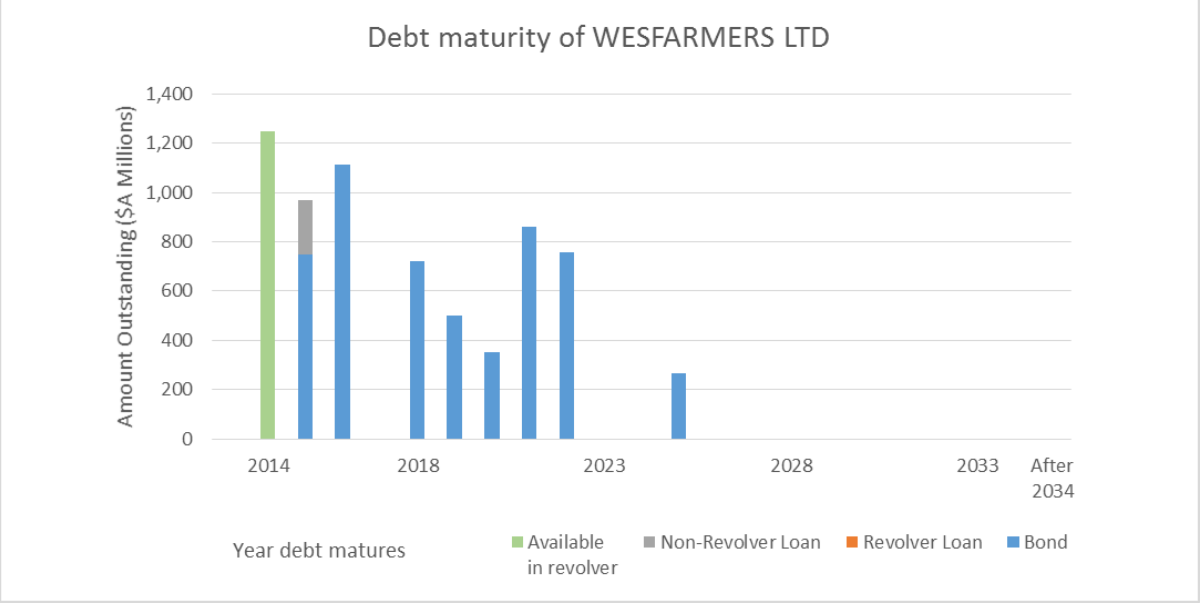



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 8 | 2 | 1 | 11 |
| Amount Outstanding ($A Mn) | 2,205.00 | 500.00 | 250.00 | 2,955.00 |
| Weighted average debt term | 10.65 | 2.55 | 5.00 | 8.80 |
| Simple average debt term | 9.02 | 2.79 | 2.50 | 7.52 |
| Weighted average time to maturity | 4.41 | 2.16 | 4.61 | 4.05 |
| Simple average time to maturity | 3.58 | 2.40 | 2.30 | 3.46 |

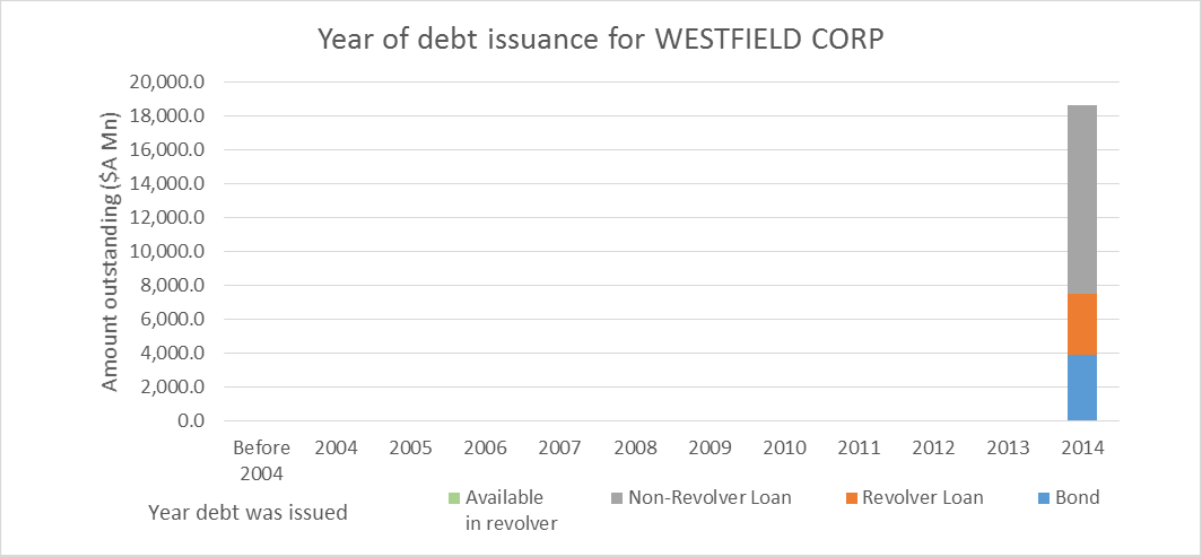
## A.1.78 WESFARMERS LTD

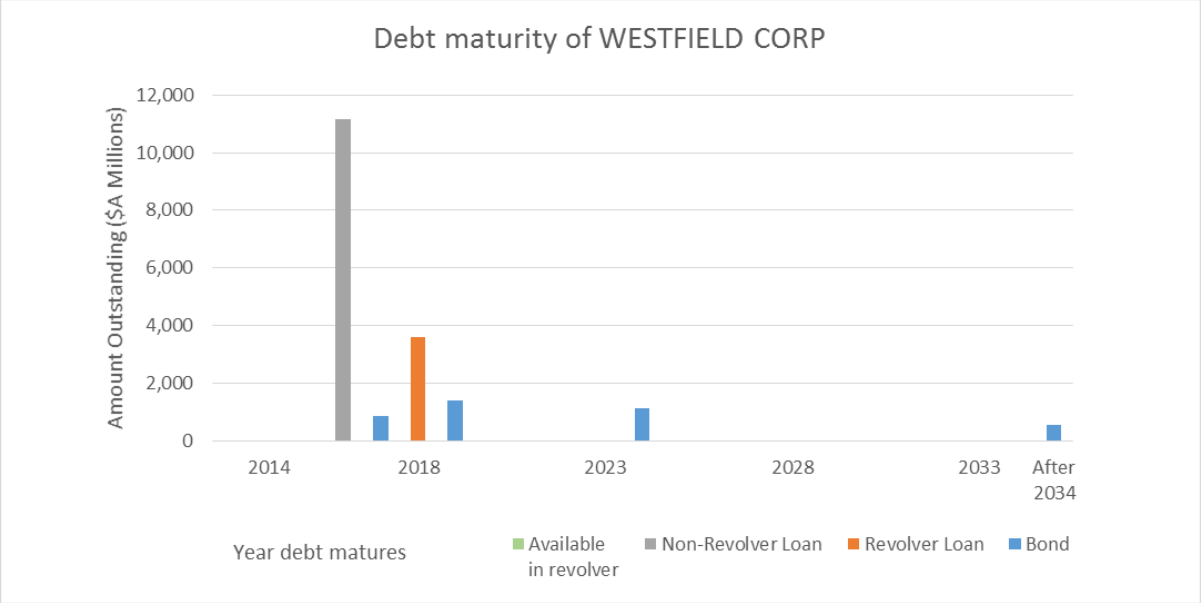



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 9 | 1 | 1 | 11 |
| Amount Outstanding ($A Mn) | 5,316.51 | 0.00 | 222.00 | 5,538.51 |
| Weighted average debt term | 6.76 | N/A | 6.00 | 6.72 |
| Simple average debt term | 7.04 | 4.02 | 6.00 | 6.67 |
| Weighted average time to maturity | 4.50 | N/A | 0.36 | 4.33 |
| Simple average time to maturity | 4.80 | 0.20 | 0.36 | 3.98 |

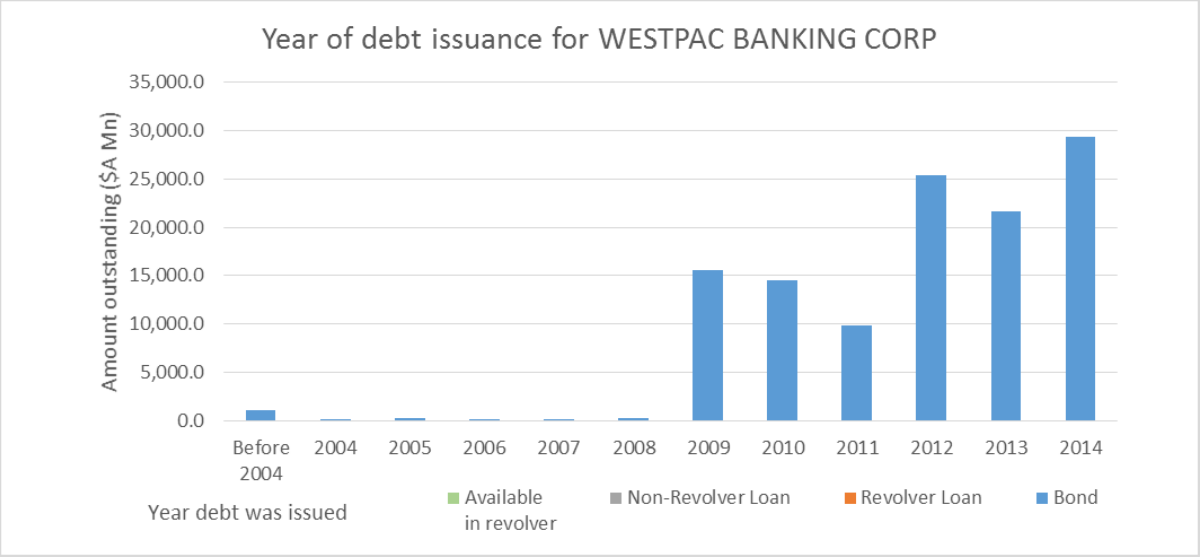
## A.1.79 WESTFIELD CORP

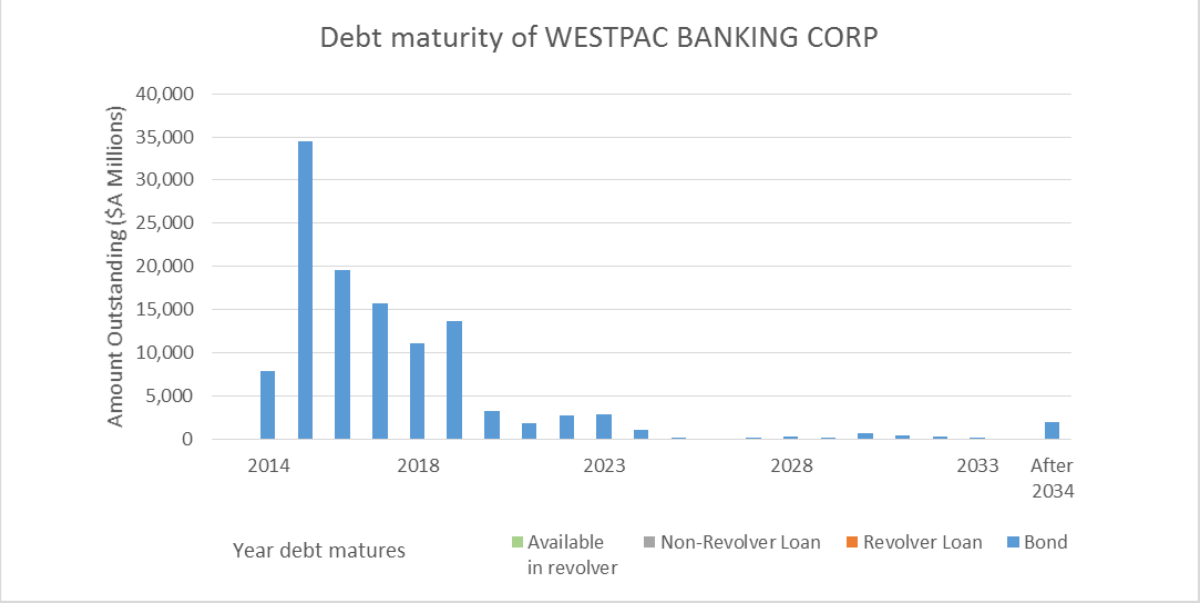



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 4 | 1 | 3 | 8 |
| Amount Outstanding ($A Mn) | 3,906.69 | 3,595.53 | 11,170.93 | 18,673.14 |
| Weighted average debt term | 9.57 | 4.00 | 2.00 | 3.97 |
| Simple average debt term | 12.00 | 4.00 | 6.00 | 7.25 |
| Weighted average time to maturity | 9.48 | 3.41 | 1.42 | 3.49 |
| Simple average time to maturity | 11.91 | 3.41 | 4.25 | 6.91 |

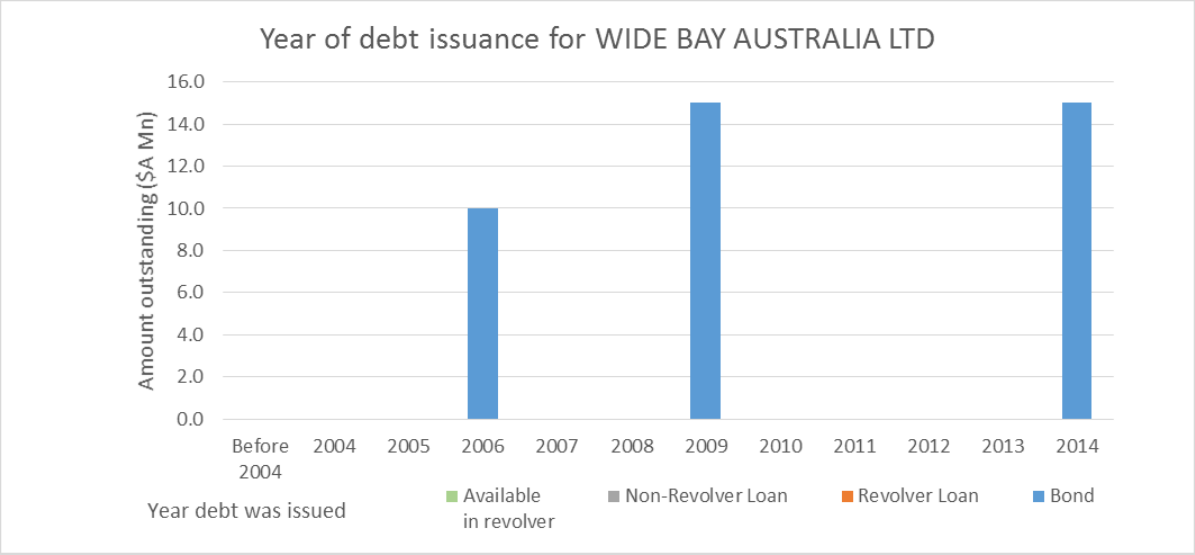
## A.1.80 WESTPAC BANKING CORP

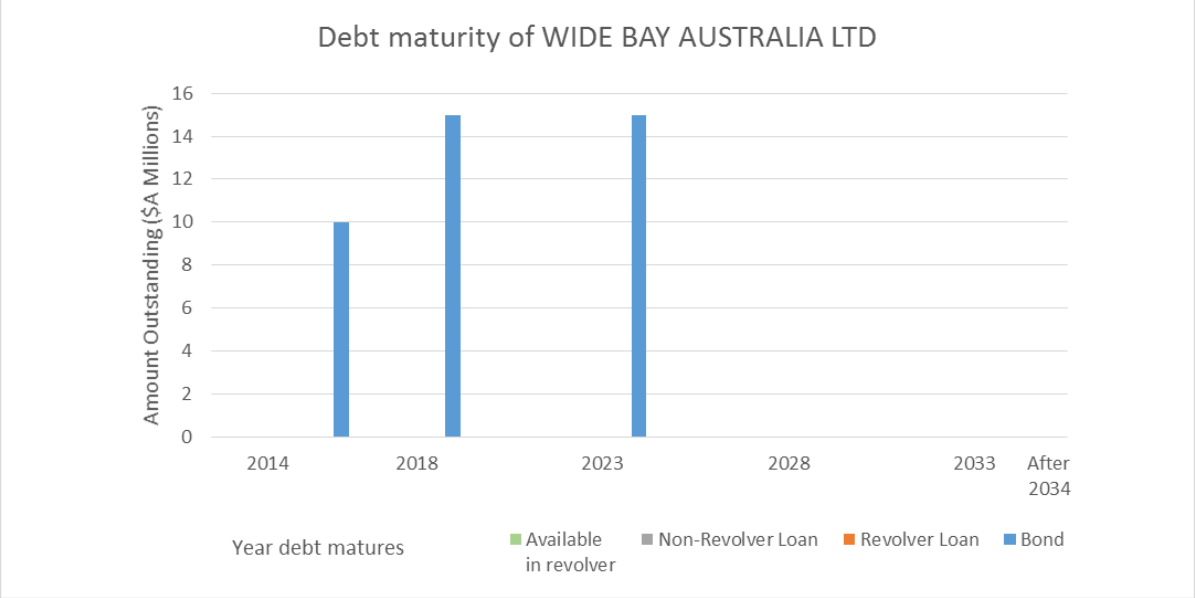



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 500 | 0 | 0 | 500 |
| Amount Outstanding ($A Mn) | 118,111.06 | 0.00 | 0.00 | 118,111.06 |
| Weighted average debt term | 5.65 | N/A | N/A | 5.65 |
| Simple average debt term | 8.93 | N/A | N/A | 8.93 |
| Weighted average time to maturity | 3.17 | N/A | N/A | 3.17 |
| Simple average time to maturity | 6.49 | N/A | N/A | 6.52 |

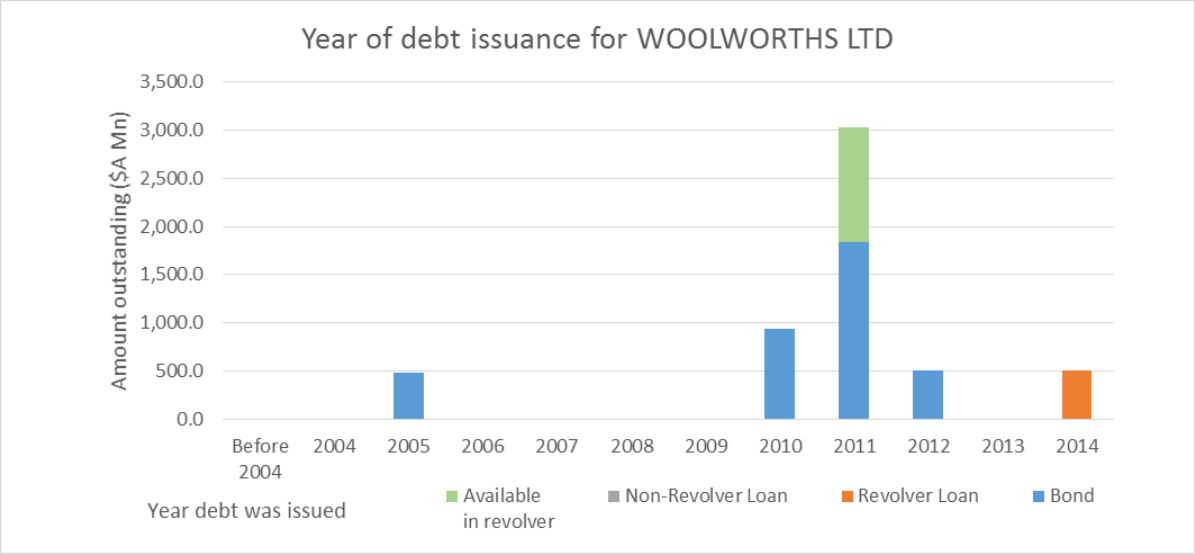
## A.1.81 WIDE BAY AUSTRALIA LTD

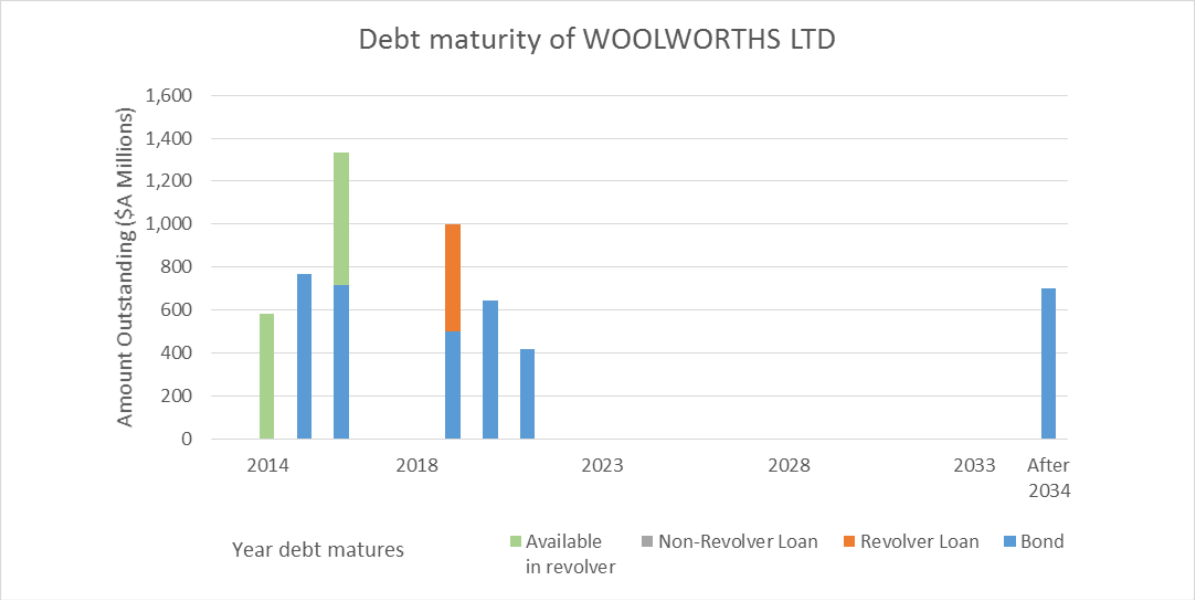



| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 3 | 0 | 0 | 3 |
| Amount Outstanding ($A Mn) | 40.00 | 0.00 | 0.00 | 40.00 |
| Weighted average debt term | 10.00 | N/A | N/A | 10.00 |
| Simple average debt term | 10.00 | N/A | N/A | 10.00 |
| Weighted average time to maturity | 5.89 | N/A | N/A | 5.89 |
| Simple average time to maturity | 5.47 | N/A | N/A | 5.47 |

## A.1.82 WOOLWORTHS LTD




| | Bond | Revolver loan | Non-revolver loan | Overall |
|---|---|---|---|---|
| Number | 8 | 3 | 0 | 11 |
| Amount Outstanding ($A Mn) | 3,748.38 | 500.00 | 0.00 | 4,248.38 |
| Weighted average debt term | 11.06 | 5.00 | N/A | 10.34 |
| Simple average debt term | 9.62 | 4.34 | 0.00 | 8.18 |
| Weighted average time to maturity | 6.94 | 4.87 | N/A | 6.70 |
| Simple average time to maturity | 5.48 | 2.30 | 0.00 | 4.61 |

**One bond due in 2036 with A$ 700 million outstanding.*

## Table 72: Measures of debt staggering for parent companies with at least one credit-rated debt

| Parent company | Number | Max | Min | Range | WMAD | SSD |
|---|---|---|---|---|---|---|
| ACS ACTIVIDADES CONS Y SERV | 16 | 8.07 | 0.03 | 8.03 | 2.12 | 1,346.97 |
| AGL ENERGY LTD | 5 | 24.63 | 0.16 | 24.47 | 9.66 | 2,599.64 |
| ALINTA HOLDINGS | 4 | 4.81 | 3.81 | 1.00 | 0.33 | 6,487.21 |
| ALUMINA LTD | 4 | 3.16 | 1.06 | 2.10 | 0.95 | 3,468.31 |
| AMCOR LIMITED | 5 | 8.42 | 0.80 | 7.61 | 1.61 | 3,120.70 |
| AMP CAPITAL SHOPPING CENTRE | 2 | 2.11 | 0.52 | 1.59 | 0.75 | 5,312.50 |
| AMP CAPITAL WHOLESALE OFFICE | 3 | 6.97 | 0.08 | 6.88 | 2.46 | 3,764.33 |
| AMP LTD | 23 | 9.16 | 0.11 | 9.05 | 2.04 | 672.64 |
| APA GROUP | 22 | 57.95 | 0.89 | 57.06 | 9.73 | 785.44 |
| APN NEWS & MEDIA LIMITED | 1 | 3.26 | 3.26 | 0.00 | N/A | 10,000.00 |
| ARISTOCRAT LEISURE LTD | 4 | 6.94 | 1.03 | 5.92 | 1.94 | 5,942.16 |
| ATLAS IRON LTD | 1 | 3.14 | 3.14 | 0.00 | N/A | 10,000.00 |
| AURIZON HOLDINGS LTD | 7 | 9.91 | 1.69 | 8.23 | 2.40 | 1,940.75 |
| AUSDRILL LTD | 4 | 5.03 | 0.96 | 4.07 | 2.04 | 3,900.02 |
| AUSNET SERVICES | 29 | 14.68 | 0.02 | 14.66 | 2.74 | 626.99 |
| AUST AND NZ BANKING GROUP | 448 | 29.35 | 0.00 | 29.34 | 3.60 | 112.84 |
| AUST CENTRAL CREDIT UNION LT | 2 | 0.42 | 0.15 | 0.27 | 0.13 | 5,200.00 |
| AUSTRALIA PACIFIC AIRPORTS | 8 | 9.99 | 1.15 | 8.84 | 3.12 | 2,435.61 |
| AUSTRALIAN NATIONAL UNIVERSI | 1 | 14.97 | 14.97 | 0.00 | 0.00 | 10,000.00 |
| AUSTRALIAN PRIME PROPERTY FD | 7 | 8.04 | 0.17 | 7.87 | 1.67 | 1,902.09 |
| AUSTRALIAN UNITY GROUP SERVI | 2 | 8.72 | 1.48 | 7.24 | 2.32 | 6,800.00 |
| BAC HOLDINGS LTD | 5 | 6.00 | 0.94 | 5.06 | 1.59 | 2,559.99 |
| BANK OF QUEENSLAND LTD | 21 | 8.17 | 0.08 | 8.08 | 1.72 | 1,091.82 |
| BENDIGO AND ADELAIDE BANK | 35 | 9.28 | 0.29 | 8.98 | 1.94 | 1,130.68 |
| BIS INDUSTRIES GROUP LTD | 7 | 4.45 | 1.48 | 2.97 | 0.61 | 2,223.39 |
| BORAL LTD | 2 | 5.34 | 2.09 | 3.24 | N/A[13] | 10,000.00 |
| BROADCAST | 4 | 4.72 | 0.88 | 3.84 | 0.50 | 3,863.76 |

[13] BORAL LTD has two debts – a bond with A$ 157.78 m outstanding, and a revolver loan of amount A$ 500 m, but $0 outstanding. The range statistic takes the revolver loan into account, but the WMAD and SSD assign no weight to it, which leads these two measures to conclude that no debt staggering had occurred.

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|---|---|---|---|---|---|---|
| AUSTRALIA FINANCE PT | | | | | | |
| BROOKFIELD INFRASTRUCTURE PA | 9 | 11.64 | 1.38 | 10.26 | 2.74 | 1,380.44 |
| BWP TRUST | 7 | 4.60 | 2.26 | 2.34 | 0.77 | 1,853.62 |
| CALTEX AUSTRALIA LTD | 2 | 22.90 | 4.09 | 18.81 | 6.33 | 6,632.65 |
| CFS RETAIL PROPERTY TRUST GR | 11 | 5.16 | 0.17 | 4.99 | 1.37 | 1,947.75 |
| CLP HOLDINGS LTD | 11 | 4.17 | 0.69 | 3.48 | 0.58 | 2,046.45 |
| COCA-COLA AMATIL LTD | 15 | 21.67 | 0.04 | 21.63 | 3.15 | 1,119.45 |
| COMMONWEALTH BANK OF AUSTRAL | 917 | 32.69 | 0.00 | 32.69 | 2.82 | 96.97 |
| COMMONWEALTH PROPERTY OFFICE | 4 | 8.15 | 1.39 | 6.76 | 1.46 | 3,083.38 |
| CONSOLIDATED PRESS HOLDINGS | 13 | 57.90 | 1.13 | 56.77 | 15.55 | 1,089.40 |
| CREDIT UNION AUSTRALIA LTD | 2 | 3.17 | 2.41 | 0.76 | 0.33 | 5,629.55 |
| DEXUS WHOLESALE PROPERTY FUN | 2 | 4.70 | 1.04 | 3.66 | 1.49 | 5,918.37 |
| DUET GROUP | 24 | 5.95 | 0.00 | 5.95 | 1.22 | 551.72 |
| ELECTRANET PTY LTD | 3 | 2.77 | 0.28 | 2.48 | 1.08 | 3,469.39 |
| GENWORTH FINANCIAL INC-CL A | 1 | 6.69 | 6.69 | 0.00 | N/A | 10,000.00 |
| GOODMAN AUSTRALIA INDUSTRIAL | 3 | 3.41 | 0.94 | 2.47 | 0.96 | 3,408.00 |
| GPT WHOLESALE SHOPPING CENTR | 1 | 3.07 | 3.07 | 0.00 | N/A | 10,000.00 |
| GREATER BUILDING SOCIETY LTD | 7 | 2.35 | 0.01 | 2.34 | 0.60 | 1,487.89 |
| HSBC HOLDINGS PLC | 33 | 11.45 | 0.26 | 11.19 | 1.39 | 3,102.66 |
| IMB | 2 | 7.69 | 6.91 | 0.78 | 0.35 | 5,555.56 |
| INCITEC PIVOT LTD | 5 | 5.14 | 1.13 | 4.01 | 1.68 | 4,240.27 |
| INSURANCE AUSTRALIA GROUP | 4 | 25.41 | 12.17 | 13.24 | 4.96 | 3,428.42 |
| INVESTA OFFICE FUND | 1 | 3.05 | 3.05 | 0.00 | N/A | 10,000.00 |
| LOYVIC PTY LTD | 1 | 2.69 | 2.69 | 0.00 | N/A | 10,000.00 |
| MACQUARIE GROUP LTD | 124 | 42.67 | 0.01 | 42.66 | 2.24 | 323.71 |
| MEMBERS EQUITY BANK PTY LTD | 5 | 9.86 | 0.37 | 9.49 | 3.12 | 2,449.97 |
| MIRVAC GROUP | 10 | 5.91 | 0.40 | 5.51 | 1.25 | 1,237.25 |
| NATIONAL AUSTRALIA BANK LTD | 388 | 29.58 | 0.01 | 29.58 | 3.26 | 100.71 |
| NEWCASTLE PERMANENT | 2 | 0.57 | 0.41 | 0.15 | 0.08 | 5,000.00 |

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| BUILDING | | | | | | |
| NEWCREST MINING LTD | 14 | 27.07 | 2.24 | 24.84 | 4.69 | 917.16 |
| NEXTGEN NETWORKS PTY LTD | 2 | 6.61 | 4.61 | 2.00 | 0.39 | 8,035.85 |
| NUFARM LTD | 5 | 4.99 | 0.09 | 4.90 | 1.45 | 3,719.13 |
| ORIGIN ENERGY LTD | 15 | 59.91 | 2.84 | 57.07 | 18.36 | 1,094.99 |
| PERTH AIRPORT DEVELOPMENT GR | 5 | 6.43 | 2.06 | 4.37 | 1.56 | 2,520.61 |
| QANTAS AIRWAYS LTD | 12 | 7.58 | 0.49 | 7.09 | 2.18 | 1,135.35 |
| QBE INSURANCE GROUP LTD | 5 | 26.59 | 0.94 | 25.65 | 12.32 | 2,710.02 |
| QPH HOLD TRUST | 6 | 6.71 | 1.11 | 5.60 | 1.74 | 2,198.30 |
| SA POWER NETWORKS | 5 | 4.99 | 0.73 | 4.25 | 1.16 | 2,126.20 |
| ST BARBARA LTD | 3 | 3.49 | 2.20 | 1.29 | 0.49 | 5,895.70 |
| STOCKLAND | 6 | 11.01 | 0.33 | 10.67 | 3.06 | 2,084.96 |
| SUN GROUP FINANCE PTY LTD | 5 | 4.70 | 1.70 | 3.00 | 0.95 | 2,694.71 |
| SUNCORP GROUP LTD | 28 | 12.65 | 0.02 | 12.63 | 2.47 | 671.96 |
| TABCORP HOLDINGS LTD | 4 | 22.42 | 1.62 | 20.80 | 6.44 | 2,812.50 |
| TELSTRA CORP LTD | 39 | 9.76 | 0.04 | 9.72 | 2.45 | 708.08 |
| TFS CORPORATION LTD | 1 | 3.73 | 3.73 | 0.00 | 0.00 | 10,000.00 |
| TRANSFIELD SERVICES LTD | 7 | 5.57 | 2.70 | 2.87 | 1.29 | 2,290.21 |
| TRANSURBAN GROUP | 27 | 12.07 | 0.08 | 11.99 | 2.61 | 581.20 |
| UNIVERSITY OF MELBOURNE | 1 | 6.69 | 6.69 | 0.00 | N/A | 10,000.00 |
| UNIVERSITY OF WOLLONGONG/ THE | 2 | 23.79 | 21.17 | 2.62 | 1.16 | 5,565.37 |
| VICTORIA POWER NETWORKS PTY | 11 | 7.24 | 1.07 | 6.17 | 2.06 | 1,110.88 |
| WESFARMERS LTD | 11 | 10.89 | 0.20 | 10.69 | 2.55 | 1,144.76 |
| WESTFIELD CORP | 8 | 29.91 | 1.42 | 28.50 | 2.56 | 1,776.48 |
| WESTPAC BANKING CORP | 500 | 29.95 | 0.00 | 29.95 | 2.48 | 100.41 |
| WIDE BAY AUSTRALIA LTD | 3 | 9.65 | 2.09 | 7.56 | 2.81 | 3,437.50 |
| WOOLWORTHS LTD | 11 | 22.10 | 0.02 | 22.08 | 5.07 | 1,214.20 |
| SGSP AUSTRALIA ASSETS PTY LTD | 17 | 8.47 | 0.81 | 7.66 | 2.37 | 2,435.61 |