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AUSTRALIAN RETIREMENT LIVING & AGED CARE INVESTMENT PERFORMANCE

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ABSTRACT

Institutional investors use modern portfolio theory when making investment decisions. A requirement of this is established benchmarks incorporating historic performance on which to base future decisions. The difficulty arises with regard to new and emerging asset classes which lack these benchmarks. In Australia the Retirement Living and Aged Care (RLAC) sector still lacks a benchmark performance metric. This paper looks at historical investment performance in the sector and constructs a market capitalisation weighted return index. In doing so it identifies current problems with such an index for the sector. Not only is the sector heterogeneous but also showing considerable dynamism in business models.

Investment Performance, Retirement Housing, Residential Aged Care

INTRODUCTION

The major investment group comprises institutional investors who utilise Modern Portfolio Theory when making investment decisions. Within this asset pricing models are utilised to measure investment performance and compare individual securities. These include the Capital Asset Pricing Model (CAPM) which utilises measures of risk and return to benchmark historic investment performance and determine future asset allocation. The utility of the model occurs by comparing investment performance between different financial assets.

Difficulties arise when considering emerging or new asset classes, particularly those that have been established in the privately held markets but are now seeking funds through the listed and/or institutional markets. There is a lack of established benchmarks or historic indices on which to measure investment performance. This has been the situation with regard to the retirement living and aged care sector in Australia. The sector has been well established particularly in North America with an established listed market specialisation, Health Care, including senior living communities, hospitals, medical office buildings and skilled nursing facilities (NAREIT, 2016). This market has a different financial model when compared to Australia which makes it difficult to directly apply benchmarks across markets.

The asset sector specialising in housing and care for older people comprises a range of financial models. From an Australian investment viewpoint categories are based on how the return is received; main ones comprise Retirement Villages, Rental Retirement Villages, Manufactured Home Estates (MHE)[1] and Residential Aged Care (RAC) (Jacobs, 2014)[2].

- Retirement Villages. These operate under state and territory legislation, a feature of these is that occupancy is through a residence agreement which incorporates a fee paid to the operator/owner (investor) on exit referred to as the Deferred Management Fee (DMF). The investor receives a development profit on initial completion of the village however the longer term returns are through the DMF when residents exit at an unknown future point in time. Investment returns are determined through long-term (20+ years) Discounted Cash Flow (DCF) analysis (Moshione, 1992; Hatcher & O'Leary, 1994; Towart, 2009).

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[1] Also called Rental Parks, Lifestyle Villages and/or Residential Land Lease Communities

[2] Broker reports have been accessed via a Bloomberg subscription

- Rental Retirement Villages. These operate under rental tenancy legislation and residents pay a weekly/fortnightly rental payment. Traditionally these were operated by Not for Profit (NFP) entities. Post 2000, for profit entities have developed a financial model involving a purpose-built village complex with community facilities and some with motel style services. These produce a regular income return for an investor. Investment returns are determined through capitalising either net returns from operating a village or net rental (Village Life Ltd, 2004).
- Age segregated Manufactured Home Estates (MHE). These operate either under specialised state MHE or rental tenancy legislation. These have evolved from caravan parks; individual dwellings are relocatable, each resident either purchases or rents their dwelling and rents the site from the operator (Connor, 2004). These produce a regular income return for an investor. Investors have targeted the sector developing and branding estates, also introducing a DMF style fee payable on exit (Jacobs, 2014). Investment returns are determined through capitalising either net returns from operating a MHE or net rental. Where DMF fees are utilised a DCF would be incorporated into the analysis to determine this future income.
- Residential Aged Care (RAC). This is operated under Commonwealth government legislation which regulates operators, facilities and payments. Government funded residency is dependent upon assessment by an Aged Care Assessment Team as needing care in a residential setting. These produce a regular income return for an investor and investment returns are determined through capitalising either net returns from operating a facility or net rental (KPMG, 2013).

These have been grouped together and referred to as the Retirement Living and Aged Care (RLAC) sector. Over time investors have expressed an interest in the sector, driven partly by the strong ageing demographic (The Prime Retirement and Aged Care Property Trust, 2007). Consequently they are interested in benchmarks on which to measure the performance of the sector and on which to base decisions of inclusion into portfolios.

Following a review of literature, this paper compares the investment performance of entities listed on the Australian Securities Exchange (ASX) specialising in the RLAC sector, plus the two total return indices which incorporate listed entities in the sector, the S&P ASX AREIT Cumulative Index (AREIT) and the S&P ASX Health Care Cumulative Index (Healthcare).

Utilising this information a weighted RLAC index is constructed for the sector since 2010. This demonstrates continuing problems with regard to performance benchmarks; the sector is comparatively small, is dominated by a few large entities and lacks sufficient diversity. In conclusion, this lack of performance benchmarks is considered to still be an inhibiting factor with regard to investment in the sector.

LITERATURE

The investment considerations of seniors housing and care assets have been discussed, in particular the demographic demand drivers (Anikeeff, 1999; Macpherson & Sirmans, 1999) and development of individual investments (Logan, 2001; Brecht, 2002). This attractiveness of these assets for institutional investors has been recognised (Kriska, 2008; Wang & Lynn, 2009), however issues holding back such investment have been identified. These issues include clear subsector definition and differentiation, consistent and comparable historical data, consistency in reporting across the sector and the requirement for regular statistics and metrics (Mueller & Laposa, 1998; Newell & Peng, 2008; Mueller, et al., 2013).

Most studies focusing on the performance of listed entities specialising in the sector have focused on the North American market, however there are parallels with the Australian situation. Similar to Australia the North American model includes both operational businesses and real estate which influences the investment performance. Including operational and rental income increases the volatility compared to assets which derive returns from rental income only (commercial and industrial) (Mueller & Anikeef, 2001). The synergy between the housing and services impacts upon the returns of from the overall investment. The real estate component is inextricably connected to the operational business improving investment performance of an integrated entity as opposed to a pure real estate investment (Laposa & Singer, 1999; Newell & Peng, 2006; Eichholtz, et al., 2007).

Researchers have considered this aggregating of composite returns into pure play components, where a specific sector or subsector comprises the focus. Such a pure play eliminates any direct exposure to non-target sectors however to be meaningful it must diversify across individual REITs to eliminate entity specific effects (Geltner & Kluger, 1998). To construct such a pure play portfolio for the current Australian RLAC subsectors is problematic due to the small size of the industry and the diverse nature of the entities.

DATA AND ANALYSIS

This research has focused on entities listed on the Australian Securities Exchange (ASX) that have a prime or major focus on at least one of the identified RLAC sectors. These are listed in Table 1. ASX listed entities have been chosen due to the accessibility of data to enable comparative analysis.

Table 1: Listed Investment Vehicles (Alphabetical Order)

Entity [3]	Listing History [4]	Operations & Comments	Sub Sectors[5]
Aevum Limited (Aevum)	Listed 18/11/2004 Delisted on 29/12/2010 – takeover by Stockland	DMF Village and Aged Care owner and operator	DMF villages, RAC
Aveo Group (Aveo)	Listed 13/12/1993	Originally a diversified developer and owner of residential, retail, commercial and industrial property with a specialisation of development and management of DMF villages. In 2013 announced intention to become solely a retirement operator	DMF villages RAC
Estia Health Limited (Estia)	Listed 5/12/2014	RAC owner and operator	RAC
Eureka Group (Eureka)	Listed 1/7/2004	Asset/fund manager and rental village owner and operator	Rental villages
Gateway Lifestyle Group (Gateway)	Listed 11/6/2015	MHE owner and operator	MHE
Ingenia Communities Group (Ingenia)	Listed1/7/2004	Originally a rental village owner and operator; branched into seniors housing. Currently DMF , rental village owner and operator and MHE developer, owner and operator	Rental villages, DMF villages, MHE
Japara Healthcare Limited (Japara)	Listed 17/4/2014	RAC operator and owner	RAC

[3] A number of operators have changed their name over the period; the current/most recent name has been used throughout.

[4] On the Australian Securities Exchange, some entities originally listed on state secondary boards.

[5] Current, historically some entities have undertaken various activities

Entity [3]	Listing History [4]	Operations & Comments	Sub Sectors[5]
Lifestyle Communities Ltd (Lifestyle)	Listed 15/12/1998	MHE owner and operator, commenced these operations following the purchase of Lifestyle Communities Group in June 2007 Analysis commences June 2007	MHE
Lend Lease PrimeLife Corporation Limited (PrimeLife)	Listed 2/1/1992 Delisted 24/12/2009 – takeover by Lend Lease	Fund manager and DMF Village and Aged Care over and operator	DMF villages, RAC
Prime Retirement & Aged Care Property Trust (Prime)	Listed 2/8/2007 Delisted 30/8/2012 – placed in administration	DMF Village and Aged Care Operator; following placement in administration the portfolio was taken over by Lend Lease	DMF villages, RAC
Regis Healthcare Limited (Regis)	Listed 7/10/2014	RAC operator and owner	RAC

Source: Author 2016

Investment performance was based on information on listed entities sourced from the Morningstar database which provides information on trading prices and dividends. The original sample period was 2000 – 2016[6]. This was a period where a number of entities listed and/or focused on the sector; also a number of entities were the subject of takeovers. This analysis has focused on 11 ASX listed entities; two large entities active in the sector have been excluded, Lend Lease and Stockland. These are both large entities $7.34bn and $11.27bn [7]respectively. Retirement housing and residential aged care comprise a small proportion (<10%) of their total portfolio making it difficult to determine the component of return attributable to this sector. Aveo initially had a diversified portfolio with a significant component of retirement living; over the sample period the entity focused on retirement living and care services to the extent that it is now a pure play. Becton Property Group and Aveo Health Care are also excluded. The former was a diversified entity with retirement village assets, following the appointment of receivers it was delisted in 2013. The latter was delisted in 2014 and its assets merged into Aveo who had been a majority shareholder.

Four listings have occurred since 2014, Estia, Gateway, Japara and Regis; despite the short trading period these have been included as they represent previously unlisted portfolios in the sector.

The Australian Financial Year was used as the annual time period as this coincides with annual reporting requirements. The two total return indices, AREIT and Healthcare were sourced from a Bloomberg terminal subscription service[8].

Investment Performance

Total return to entity *j* in time period *t* was defined as follows.

$$r_{j,t} = \frac{(p_{j,t} - p_{j,t-1}) + d_{j,t}}{p_{j,t-1}} \quad (1)$$

Where $p_{j,t}$ is the security price at the end of the period, $p_{j,t-1}$ is the security price at the beginning of the period, and $d_{j,t}$ is the dividends paid during the period for entity *j* during period *t*.

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[6] 30 June 2016, downloaded 11 July 2016

[7] As at 30 June 2016

[8] Accessed 25 July 2016

The annual performances of each entity plus annual performance of AREIT and Healthcare, which are included for reference purposes, are contained in Appendix 1. These returns show a variable performance between entities. The impact of the downturn in 2008/2009 is evident as all entities posted double-digit negative returns in this period. Greater volatility in investment performance in the period in contrast to AREIT during the period 2006 to 2009 was observed. The performance of some entities can be attributed to company specific activities (Towart, 2015), particularly those that are no longer trading on the ASX. Prior to 2008/2009 entities had branched into other asset classes and business activities including student accommodation and asset and funds management.

The financial turmoil in 2008/2009 resulted in a number of financiers and investors in the RLAC sector reappraising their risk criteria and repricing their return requirements. This resulted in the performance of the sector facing greater scrutiny coupled with asset impairments and valuation write-downs. The slowing of the residential property market impacted on retirement villages in that potential residents were less likely to relocate (Stockland, 2009). These factors impacted upon the ability of operators and investment vehicles to service their financial commitments. While this resulted in some entities delisting, remaining entities were able to raise further equity funds. Three entities have left the sector: Aevum, delisted following a market takeover by Stockland in 2010; Primelife, delisted following a Scheme Implementation Agreement by Lend Lease to acquire all the securities in 2009; and Prime, delisted in 2012 following being placed into administration.

Given the trading history within the sector particularly in 2008/2009, it is considered more realistic to focus on the period 2010 to 2016 as this removes both the impact of the downturn and those entities that have delisted. This overcomes concerns about investment performance effects for entities that delist as most do so because of merger, acquisition or financial distress. This then focuses on the eight entities which are currently trading. Partial years following listing are excluded as there is evidence that these entities perform differently from that of established entities. Analysis of US REIT performance following listing has shown short to medium-term underperformance (Chan, et al., 2003).

The annual performances of these eight entities plus AREIT and Healthcare are contained in Table 2. Since 2008/2009 remaining entities have largely become pure plays, divesting non-RLAC assets and activities. Prior to 2007 a number of entities undertook asset and funds management activities, of the remaining entities Eureka remains the only one with significant activity in this arena. Consequently performance can be attributed to that of the RLAC sector.

Table 2: Annual Performance 2010 to 2016

Year	Aveo	Estia	Eureka	Gateway	Ingenia	Japara	Lifestyle	Regis	AREIT	Healthcare
30/06/2016	22.9%	-18.8%	54.9%	44.6%	13.1%	-0.8%	20.3%	-3.9%	24.6%	12.28%
30/06/2015	27.7%		308.0%		-13.2%	11.8%	52.0%		20.3%	24.05%
30/06/2014	89.7%		92.3%		52.6%		105.8%		11.1%	15.37%
28/06/2013	-38.4%		-35.0%		77.8%		4.0%		24.2%	37.22%
29/06/2012	-44.9%		17.6%		69.5%		-10.0%		11.4%	7.20%
30/06/2011	3.9%		-34.6%		129.8%		50.2%		4.5%	5.78%
30/06/2010	31.4%		8.3%		0.0%		49.9%		22.5%	6.68%
Standard Deviation	42.4%		110.2%		46.8%		35.5%		7.3%	10.7%

Of the four entities (Aveo, Eureka, Ingenia and Lifestyle) that have been listed since 2010 the average return (not shown) has been positive for this period. The investment performance shows significant volatility in comparison to AREIT and Healthcare with notably higher standard deviations for all these entities. Coupled with low correlations with AREIT much of this can be attributed to company specific factors.

Aveo undertook equity raisings in 2012 and 2013 to reduce debt, provide liquidity and improve the balance sheet. Further equity raisings in 2015 and 2016 funded the acquisition of Retirement Villages Group a wholesale vehicle which Aveo already had a significant holding. Aveo also announced in 2013 the strategy of becoming a pure play and divesting all nonretirement assets along with adopting its new name. Eureka grew accretivly by annually (except 2013) issuing further equity to raise working capital and funded purchases by issuing shares to vendors. While the performance since 2013 has been impressive, an original investor at listing in 2004 would still have achieved negative performance. Following a change of name in 2012, Ingenia raised the first equity capital since 2008/2009 in 2013 to fund acquisitions notably the new strategy of MHE investment. By this stage the entity was in the process of exiting non-core investments including US seniors' accommodation and New Zealand student accommodation. Further equity raisings were undertaken in 2014 and 2016 to fund acquisitions and for additional working capital. In 2012 Lifestyle raised equity to reduce debt and improve the working capital position; the entity had grown since 2010 through individual purchases predominantly of development sites.

Of the recent listings three (Estia, Japara and Regis) are RAC businesses, unlike the other entities which predominantly provide retirement accommodation. The RAC sector, unlike the others, is highly sensitive to government funding and policy interpretations. In response to the Productivity Commission's Caring for Older Australians report, the Commonwealth government released the Living Longer Living Better (LLLB) for reforming the delivery of aged care in 2012. The introduced reforms changed the quantum and sources of revenue for aged care providers, particularly those providing RAC (KPMG, 2013). Partially in response to these reforms these three entities listed in 2014. Revenue for a RAC entity is from three sources: government funding (based on an Aged Care Funding Instrument (ACFI) schedule) based on the level of care; resident funding both means tested and for additional services; and funding for accommodation with Refundable Accommodation Deposits and/or Daily Accommodation Payments (Jacobs, 2014). This ACFI funding exceeded budgeted levels by approximately 2% and in the May 2016 federal budget this ACFI funding was cut, particularly for residents requiring Complex Health Care. This resulted in a decline in income to RAC operators and resulted price falls for listed entities. In September 2016 the Department of Health clarified an interpretation of The Aged Care Act 1997; the result of this was to significantly reduce current and future income for RAC operators. Estia, Japara and Regis all experienced significant price falls between 13% and 30% (Jacobs, 2016).

While much of the performance can be attributed to company specific factors that primary objective is to produce a benchmark which allows comparison of the sector with other benchmarks and investments.

Specialised Index

What is of interest looking forward is an investment benchmark; investors in the ASX have access to the S&P Dow Jones indices which are produced for a variety of investment sectors. A specialised RLAC index would provide a benchmark against which to measure the performance of both listed and unlisted entities. It is not proposed duplicate precise S&P Dow Jones Capitalisation Weighted Indices mathematics but to produce a more simplified index of all listed RLAC entities.

An index of RLAC returns is created by waiting the total return of each entity by its market capitalisation for that year. The index weight given to entity *j* in time period *t* was defined as follows.

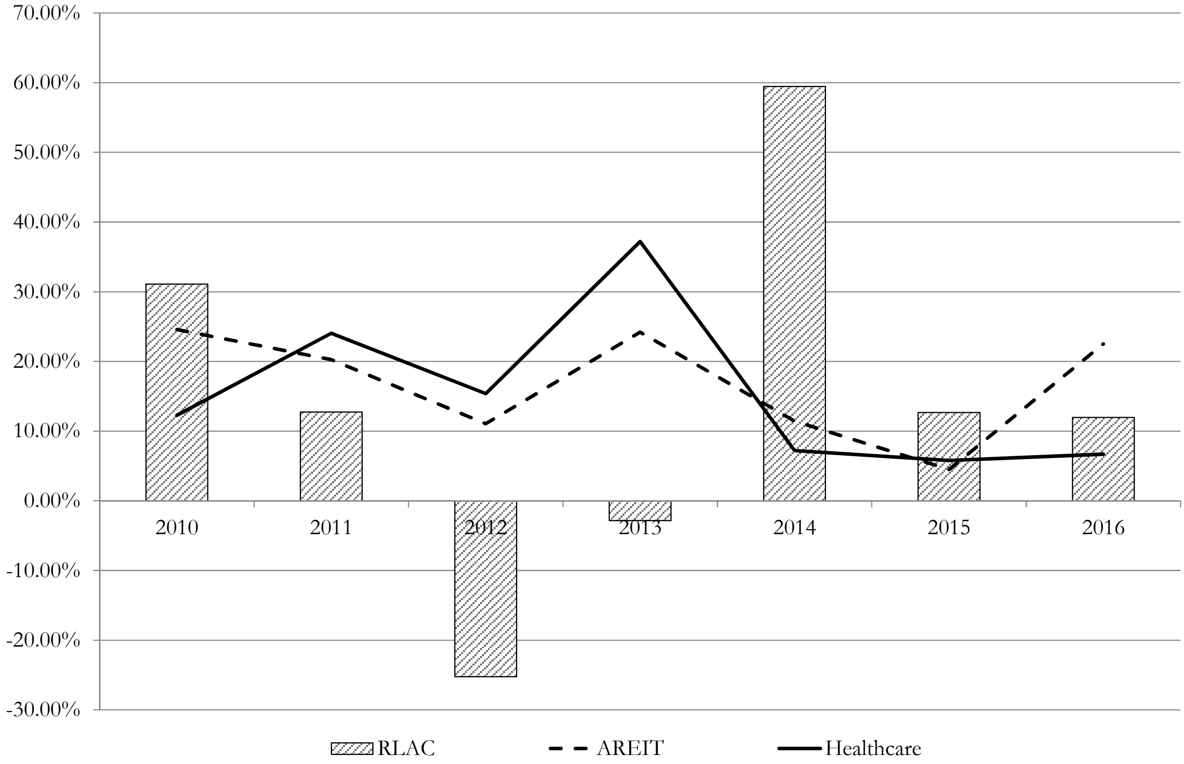
$$W_{j,t} = \frac{MC_{j,t}}{\sum_{j=1}^{N} MC_{j,t}\ , \ldots MC_{n,t}} \qquad (2)$$

Where $MC_{j,t}$ is the market capitalisation of security *j* in period *t*, this uses the market capitalisation as at the end of each period is this reflects activities including capital raisings which happened during the period. The return for the RLAC sector in period *t* was defined as follows.

$$RLAC_t \qquad \sum_{j=1}^{N} W_{j,t}\, r_{j,t} \;\; \ldots W_{n,t r_{n,t}} \tag{3}$$

This process is replicated for each year utilising entities that had achieved a full one year return to generate a time series of indexed returns for the sector. This market capitalisation weighted index since 2010 is shown in Figure 1.

Figure 1: Index Returns 2010 to 2016



The standard deviations for entities in the sector and the two indices are contained in Table 2, in contrast the RLAC index has a standard deviation of 24.5%. This is greater than that of AREIT and Healthcare. Investors and their advisers have produced research on the position of RLAC assets on the efficient frontier. While these focused on retirement villages they have been used as a basis of comparison. Institutional investor Stockland placed retirement villages as having a higher risk and return than passive commercial investment and a lower risk and return than commercial development (Stockland, 2009). This research stated the return from retirement villages was 12.55%, but did not state the level of risk. Asset advisors, Atkinson Consultants stated that retirement village (proxy) for the 15 year period to 30 September 2010 the total return was 15.5% and the volatility 10.0% (Atkinson, 2011). These results indicate that there may be further factors influencing the performance of listed RLAC entities which have not yet been incorporated into the analysis.

The creation of this index highlights the problems of constructing a specialised RLAC index of listed entities due to the lack of sufficient size and domination by a few entities leading to a lack of diversity at this point in time.

RLAC entities are in two distinct GICS industry groups Real Estate included in the AREIT Index and Health Care Equipment & Services included in the Healthcare Index. Since 2010 the number of RLAC entities has increased from 4 to 8 with the market capitalisation of $6,444million (30 June 2016). AREIT Index comprises 21 entities and a market capitalisation of $141,673million and the S&P ASX Health Care Index comprises 14 entities and market capitalisation of $62,647million (22 June 16). Aveo, Estia, Japara and Regis are in the S&P ASX 200 and are included in their specialised indexes; the remaining four have insufficient market capitalisation to be included. There are distinct issues with creating a meaningful longitudinal index based initially on the performance of four trading entities.

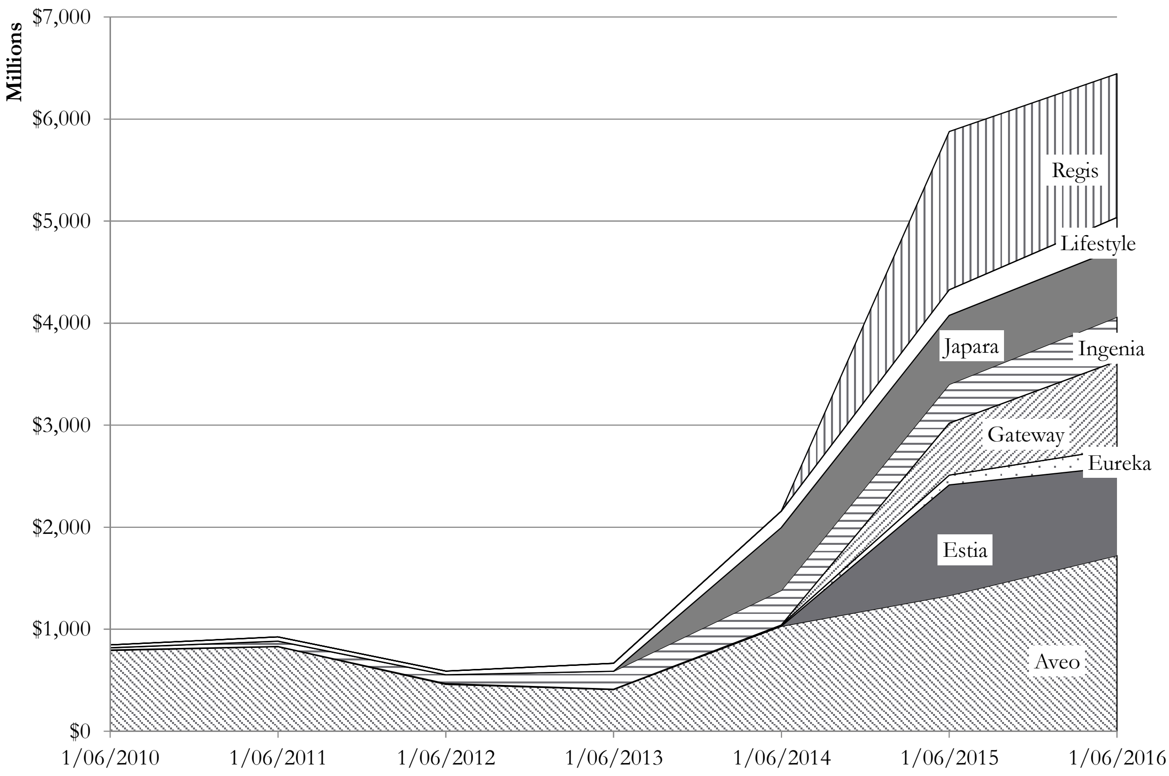
This market capitalisation and number of trading entities has increased significantly since 2010 and is contained in Table 3. Index mathematics accounts for entities both entering and exiting a listed market based index (S&P Dow Jones Indices, 2015) however to create a meaningful longitudinal index would require a longer trading history of all the major entities than is currently available.

Table 3: Market Capitalisation RLAC Index (millions)

	Jun-2010	Jun-2011	Jun-2012	Jun-2013	Jun-2014	Jun-2015	Jun-2016
Market Capitalisation	$846	$924	$590	$666	$2,158	$5,876	$6,444
# Entities	4	4	4	4	5	8	8

Moreover the RLAC index is dominated by a few entities, as at 30 June 2016 50% of the market capitalisation in the sector comprised three RAC entities, Estia, Japara and Regis. After adding the other large entity, Aveo; over 70% of the index is in these four largest entities. This dominance by these entities is shown in Figure 2 which contains the market capitalisation of individual entities over time.

Figure 2: RLAC Market Capitalisation from 2010



The price falls in September 2016 following the Department of Health announcement reduced the prices of Estia, Japara and Regis. This has impacted upon their market capitalisations which may result in Estia and Japara being removed from major index participation.

Institutional investment in the RLAC sector is still in its infancy in Australia, the lack of appropriate investment benchmarks may be considered an inhibiting factor however the sector may not yet be capable of supporting an index of listed entities.

CONCLUSION

The provision of retirement accommodation and RAC is a well-established industry in Australia with a significant number of properties, facilities and operators (Towart, 2015). This is yet to translate into a mature institutional investment-grade asset class.

The impact of 2008/2009 on operators has been significant and a component of the more recent investment performance of entities can be attributed to these events. Notwithstanding this the industry continues to trial new business models (provision of care and personal services by non-RAC operators) which can impact upon investment performance. Company specific events have a significant impact on anticipated income and trading prices. The impact of government regulation and policy on RAC entities is significant, as this is not something which can be reliably predicted in the longer term it creates a perception of instability.

Both the operational business and the real estate component are intricately connected for RLAC entities. Whether it is this integration of activities, or factors inherent in the sector which results in higher standard deviations of investment performance when compared to AREIT and Healthcare requires further analysis. These higher standard deviations contradict previous releases from investors and asset consultants regarding the level of risk in the sector.

The creation of meaningful longitudinal analysis is inhibited by the domination by a very few large entities in contrast to the smaller operators. This is further inhibited by the fluctuating number of listed entities, particularly if any of the three RAC entities were to delist. While there is clear demand for a benchmark RLAC index, it may well be that it cannot currently be based on listed entities.

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APPENDIX 1 ANNUAL PERFORMANCE

Table 4: Annual Performance 2000 to 2016

Year	Aevum	Aveo	Estia	Eureka	Gateway	Ingenia	Japara	Lifestyle	PrimeLife	Prime	Regis	AREIT	Healthcare
30/06/2016		22.9%	-18.8%	54.9%	44.6%	13.1%	-0.8%	20.3%			-3.9%	24.6%	12.28%
30/06/2015		27.7%		308.0%		-13.2%	11.8%	52.0%				20.3%	24.05%
30/06/2014		89.7%		92.3%		52.6%		105.8%				11.1%	15.37%
28/06/2013		-38.4%		-35.0%		77.8%		4.0%				24.2%	37.22%
29/06/2012		-44.9%		17.6%		69.5%		-10.0%				11.4%	7.20%
30/06/2011	-97.3%	3.9%		-34.6%		129.8%		50.2%		9.1%		4.5%	5.78%
30/06/2010	26.7%	31.4%		8.3%		0.0%		49.9%		-48.2%		22.5%	6.68%
30/06/2009	-47.8%	-86.8%		-80.0%		-88.3%		-60.0%	-78.9%	-80.0%		-46.2%	
30/06/2008	-45.4%	-31.8%		-94.5%		-65.1%		-61.5%	-56.7%			-31.8%	
29/06/2007	111.7%	40.6%		93.3%		19.6%			4.5%			25.0%	
30/06/2006	29.3%	88.1%		-3.2%		48.8%			35.0%			18.8%	
30/06/2005		4.0%		-38.0%					-34.8%			18.6%	
30/06/2004		-4.8%							-41.9%			15.2%	
30/06/2003		167.9%							1.8%			12.7%	
28/06/2002		39.2%							10.1%				
29/06/2001		-8.1%							-31.0%				
30/06/2000		-10.8%											
Standard Deviation	68.02%	57.79%		103.17%		60.46%	6.29%	51.95%	34.35%	36.87%		20.74%	10.67%
Average return	-3.81%	17.05%		24.10%		22.25%	5.52%	16.74%	-21.32%	-39.71%		9.34%	15.51%