The Use of REITs as an Alternative Source to Finance Senior Housing Development in China

by

Yiming Cai

Bachelor of Engineering in Civil Engineering
Xiangtan University, 2008

Master of Engineering in Civil Engineering Construction
Tongji University, 2011

Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

at the

Massachusetts Institute of Technology

September, 2017

©2017 Yiming Cai
All rights reserved

The author hereby grants to MIT permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part in any medium now known or hereafter created.

Signature of Author

Signature redacted

Center for Real Estate
July 28, 2017

Certified by

Signature redacted

Professor David Geltner
Professor of Real Estate Finance in Department of Urban Studies & Planning and Center for Real Estate Thesis Supervisor

Accepted by

Signature redacted

Professor Albert Saiz
Daniel Rose Associate Professor of Urban Economics and Real Estate, Department of Urban Studies and Center for Real Estate
The Use of REITs as an Alternative Source to Finance Senior Housing Development in China

by

Yiming Cai

Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate on July 28, 2017 in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

ABSTRACT

As China’s elderly population grows at an accelerating rate, investors from a wide range of industries have entered the senior housing market and view it as a “sunrise industry” which can offer attractive returns for investors. Today, growth in China’s senior housing market is presents both tremendous opportunities and challenges. On the other hand, due to the large capital required, long investment cycle and steady capital inflow toward the middle or the end of the projects, an alternative financing method is required to meet the rapid development of senior housing in China. REITs (Real Estate Investment Trusts), allowing anyone to invest in portfolios of large-scale properties through the purchase of stock, are a great alternative source for financing.

This thesis reviews the background and current market of senior housing in China and discusses the key points in this industry, especially the ways of project to finance. Then, REITs are introduced in terms of history, pros and cons, valuation, and challenges. A case of a US leading health care REIT is conducted, with a comparison to the current quasi-REITs in China. Finally, the general strategy and structure of senior housing REITs are discussed.

Based on this study, REITs clearly fit the current and future needs of senior housing sector in China. Although China’s capital market is not completely ready to adopt REITs with international standards, China should pursue the experiment of such practice amid the challenges.

Thesis Supervisor: David Geltner
Title: Professor of Real Estate Finance
[This page intentionally left blank]
Acknowledgments

Research for this thesis would have been inconceivable without the guidance and support of my advisor Professor David Geltner. His unsurpassed knowledge and enthusiastic interest in this subject inspired me and helped me establish my framework and foundation in real estate investment.

Special thanks to Mr. Brad Case, SVP of NAREIT, for his professional insight and generous industry referrals.

I also greatly appreciate MIT, especially our Center for Real Estate. The professionalism, encouragement, generosity, and passion I learned here will inspire and encourage me in my future career. The past year has been a life-changing experience for me.

Finally, my deepest appreciation and love go to my parents for their unwavering support, guidance, and encouragement in my personal, academic, and professional endeavors.
# TABLE OF CONTENTS

## Chapter 1. Senior Housing Development and its Market in China ......................................................... 9

1.1 Background of Senior Housing Development in China ........................................................................ 9
1.1.1 Demographic Background ............................................................................................................... 9
1.1.2 Social Background ......................................................................................................................... 10
1.1.3 Economic Background .................................................................................................................. 11

1.2 Current Senior Housing Market in China ............................................................................................. 12
1.2.1 Types of Products .......................................................................................................................... 12
1.2.2 Major Participants ........................................................................................................................ 15
1.2.3 Profit Models ................................................................................................................................ 17

1.3 Discussion of the Key Point and Challenges in Senior Housing Development .................................... 18
1.3.1 Culture ........................................................................................................................................ 18
1.3.2 Laws & Regulations ...................................................................................................................... 19
1.3.3 Operation ...................................................................................................................................... 20
1.3.4 Financing .................................................................................................................................... 21

## Chapter 2. Financing Method of Senior Housing Development .............................................................. 23

2.1 The Capital Market Overview .............................................................................................................. 23
2.2 The Traditional Approach: Bank Loans, Insurance Capital, Joint Venture ......................................... 24
2.2.1 Bank Loans .................................................................................................................................. 24
2.2.2 Insurance Capital .......................................................................................................................... 24
2.2.3 Joint Venture ................................................................................................................................ 25

2.3 The Alternative Approach: CMBS, Crowd Funding, REITs ................................................................. 26
2.3.1 CMBS ........................................................................................................................................ 26
2.3.2 Crowd-Funding .............................................................................................................................. 27
2.3.3 REITs .......................................................................................................................................... 28

2.4 Summary .......................................................................................................................................... 28

## Chapter 3. The Role REITs can Play in Senior Housing Development .................................................... 31

3.1 An Overview of REITs .......................................................................................................................... 31
3.2 Pros and Cons of REITs Financing ...................................................................................................... 32

3.3 Motivations of Launching REITs for Senior Housing Development in China ..................................... 35

3.4 Dilemmas of the Implementation of REITs in China .......................................................................... 36
3.5 The Valuation of REITs ...................................................................................................................... 40
3.6 Performance of Current Senior Housing REITs in US ......................................................................... 41
Chapter 4. Case Study of Senior Housing REITs ................................................................. 45
4.1 Case 1 - Welltower Inc. (Health Care REIT)............................................................... 45
4.1.1 Company Profile .................................................................................................. 45
4.1.2 Legal Filing and Reporting ................................................................................ 46
4.1.3 Capital Structure ............................................................................................... 47
4.1.4 Financial Analysis .............................................................................................. 49
4.1.5 Comparables Analysis ....................................................................................... 50
4.2 Comparison of Product Structure of REITs in China ............................................ 52
4.3 Comparison of REITs between China and US ......................................................... 53

Chapter 5. Strategy and Structure of Senior Housing REITs in China ......................... 55
5.1 Strategy of Senior Housing REITs ........................................................................... 55
5.1.1 Equity REITs vs. Mortgage REITs ................................................................. 55
5.1.2 Internal Management vs. External Management ............................................. 56
5.1.3 Open End vs. Closed End ............................................................................... 57
5.1.4 Traded REITs vs. Non-traded REITs ............................................................... 58
5.2 Structure of Senior Housing REITs ...................................................................... 60
5.2.1 The Main Components of Senior Housing REITs’ Capital Structure ............. 60
5.2.2 Some Concerns on Senior Housing Leverage .............................................. 62

Chapter 6. Conclusions and Further Research ................................................................. 65
6.1 Summary and Conclusions ................................................................................... 65
6.2 Further Research ................................................................................................... 67

Bibliography ............................................................................................................... 69
Chapter 1. Senior Housing Development and its Market in China

The trend of aging population is aggravating nowadays and how to develop and provide senior living space has become a hot topic. It is about our grandparents, one day our parents, indeed, eventually all of us. The traditional world of extended families with three or more generations living all under one roof is fading away, and nowhere faster than in China. This chapter will present a basic background as well as current market of senior housing development in China.

1.1 Background of Senior Housing Development in China

This section will review the demographic, social, and economic background of the senior housing market in China.

1.1.1 Demographic Background

As well as having the world's largest population, China also has one of the fastest ageing rates. Increased longevity and declining fertility rate have tilted China's demographic balance towards a rapidly aging population. By the end of 2016, the total number of Chinese population at the mainland reached 1.38 billion. The number of people aged 60 and above reached 231 million, 16.7% of national population and equivalent to the current total population of Germany, France and the United Kingdom combined. The number of people aged 65 and above reached 150 million, 10.8% of national population, respectively. \(^{[1]}\) Estimates suggest that China will need another 4.0 - 5.2 million elderly beds by 2020, equal to around 100 to 182 million square meters. \(^{[2]}\) The changes of China's demographic structure from 1990 to 2050 (expected) are clearly demonstrated in Figure 1.1.

---

\(^{[1]}\) Data from National Bureau of Statistics of China

\(^{[2]}\) Janice Yau Garton, Senior Housing in China - Older and Wiser, DLA Piper, Nov 2015
1.1.2 Social Background

Another critical factor that influence elderly care is the increased urbanization of China. Urbanization has left more and more rural elderly population alone to take care of themselves, as the younger generations leave their hometowns for education and employment. Since 1978, the year China conducted their Reform and Opening-up Policy, the urban population has increased from 170 million to 791 million by the end of 2016. The urbanization rate has increased from 17.9% to 57.4%, and this number keeps growing and is expected to go beyond 60% by 2020. Millions of young people flow into cities and settle down far from their parents, resulting in a huge amount of “Empty Nesters” in rural areas. Even when elders move to the cities with their children, they are not used to a metropolitan living style. Most of them are often left alone at home during the day because their children are too busy to spend time with them. Nowadays, arguably, Chinese

---

families have become grayer and more isolated. The population of elderly people aged 80 years and above will reach 108 million by 2050 and half of this "Silver" segment population will live alone.

1.1.3 Economic Background

On the other hand, the residents' income continues to rise with growing trend of national GDP. In 2016, the national per capita disposable income was 23,821 RMB, a real growth (after inflation) of 7.4 percent. Per-capita disposable income of urban households was 33,616 RMB, a real growth of 6.3 percent. [4]

Moreover, China’s social security has made great progress. By the end of 2016, a total of 379.30 million people participated in the “urban labor basic pension program”, which is for staff and workers, a year-on-year increase of 25.69 million. A total of 508.47 million people participated in the “residential basic pension insurance program”, which is for urban and rural residents, an

increase of 3.75 million. [5]

The public health and social services continue to make progress as well. By the end of July 2016, there were 989,889 medical and health institutions in China, including 28,341 hospitals, 927,598 community-level medical and health care institutions, 30,761 professional public health care institutions and 3,189 other institutions. There were 7.39 million health workers in China, including 2.82 million practicing doctors and assistant practicing doctors and 2.92 million registered nurses. The medical and health institutions in China possessed 6.52 million beds, of which, hospitals possessed 4.84 million and township health centers had 1.17 million. [6]

With such an optimistic economy forecast, Chinese residents' income is expected to continue rising in the following years, which means more households can afford senior care service and more people would like to live in senior care communities.

1.2 Current Senior Housing Market in China

This section will review the products, market participants, and the business models in the senior living industry in China.

1.2.1 Types of Products

Although China’s senior housing industry is still at its infant stage, the sophistication of its ongoing and planned projects indicate that a preliminary structure has been put in place with products that can meet different levels of senior care needs (Figure 1.3). Based on the duration of stay, the current senior housing in China can be divided into permanent or transient housing. In terms of functions, they can be classified among elderly-adapted housing, housing for all-round

[6] Data from National Health and Family Planning Commission of China
living, continuous care retirement housing, and regular apartments for the elderly. Each type of senior housing has its own characteristics and functions.

**Figure 1.3: Structure of China's Current Senior Housing Products**

![Diagram of senior housing products]

Sources: Deloitte analysis

- **Current ordinary residential communities**

Today in China, most of the elderly own their housing directly or indirectly and wish to live in communities that they are familiar with. They show no strong interest in living in elder care institutions, such as an elder care community or apartment for the elderly. Therefore, some real estate developers have invested in their current residential real estate projects to renovate and enhance the facilities, living environment, and supporting services to adapt them to the aging society. Some others choose to establish elder care service centers to provide meal service, housekeeping, medical aid, and organization of entertainment activities.

- **Newly-constructed all-round residential communities**

This type of communities accommodates both young and old residents. Generally speaking, these

communities are relatively larger and located in the outer area of the city, accessible by a gradually improving public transportation system. Developers usually hold and operate a small area for elder care purposes and rely on the revenue from selling other properties from the ensuing development and operations. Meanwhile, living together makes it possible for the elderly and their children to take care of each other while avoiding conflicts that come from the different life styles. The elder care facilities in these communities include both the basic community elder care service as well as more professional and long-term services, such as aided-living, care, and nourishment.

- **Continuous care retirement community**
  This is a community established specifically to meet the needs of the elderly. It offers facility and services such as self-care, assisted care and assisted housekeeping to senior residents of different ages and health conditions in the community. It enables the senior residents to spend most of their elderly lives in a familiar community. More importantly, it not only requires the continuous care retirement community develop with the living and spiritual demands of the elderly in mind, but also customize the subsequent care services, which puts a higher requirement on the comprehensive ability of the developers and operating teams.

- **Stand-alone apartment for the elderly**
  This is the most professional elder care facility that usually relies on the medical resources of the city and are more likely to be located within the city. As a result, most of these apartments are relatively smaller, with fewer than 500 beds for housing and delivery of professional care services to very old, chronical-disease-suffering, semi-disabled or fully-disabled seniors. So far, most of these apartments available in current market are designed with high-end customers in mind. Meanwhile, compared with other products, this kind of project is more likely to be funded by Sino-
foreign JV institutions.

- **Elder care, health and vacation center**

In essence, vacation-type elder care housings are built to promote leisure and vacation service in the name of elder care. These can be single buildings as well as branded chains funded by a large real estate developer, and are usually located in cities with beautiful scenery and a pleasant climate. They often serve the most healthy and energetic seniors and are equipped with medical treatment, other healthcare services, physical rehabilitation services, and dietary education facilities and services. However, the actual elder care function in this type of senior housing is much weaker than its other supporting functions. They are often operated in the timeshare/hotel model and are often used by the developers to integrate and reuse their current real estate projects. Whether they can be classified as senior housing and thus benefit from the relevant preferential policies remains debatable.

**1.2.2 Major Participants**

In anticipating of promising market demand and profitable investment yield, investors from a wide range of industries have entered the senior housing market in recent few years. By the end of 2015, over eighty real estate developers and over ten insurance companies are willing to or have participated in senior housing industry with total investment amount of 300 billion RMB. In addition to real estate developers and insurance companies, specialized elder care service institutions have invested in the construction and operation of senior care facilities.

---

• Real Estate Developers - Major force in development and investment

Due to their experiences accumulated over years in real estate development, developers are taking the lead in senior housing development and investment. According to the statistics shown in “2017 China’s Senior Housing Market Report”, over thirty real estate developers have entered senior housing development and operations, and over eighty others have expressed a willingness to enter this promising market.

• Elder care service institutions - facility operators

In addition to providing housing that suits the elderly and the care and treatment that satisfy their daily needs, higher level senior housing providers should also be capable of meeting the desires of those elderly pursuing a high-quality lifestyle. Therefore, it is desirable to build, maintain and operate supporting facilities for elder culture, education, sports, entertainment, tourism and healthcare. The elder care service institutions that provide these products and facilities are at the leading edge of the senior housing market.

Many foreign elder care agencies have begun to enter the Chinese domestic market by forming joint ventures with Chinese counterparts, or by setting up independent elder care service companies in the hopes of capturing market share in the Chinese elder care service market. Unlike the strategy employed by those real estate developers who are focusing on senior housing development, the elder care institutions currently operating in China, especially the foreign-owned ones, mainly offer elder care services from the facilities they rent and renovate residential neighborhoods in the cities.

• Insurance institutions - long-term capital provider

Thanks to the vast amount of long-term capital accumulated over an extended period of time,
insurers have a unique competitive edge in the senior housing market. On the other hand, elder care communities are good investments for life insurance companies due to the large investment required, long investment cycle, steady capital inflow toward the middle or the end of the projects, higher long-term comprehensive return on investment, and stronger resistance to risk. To invest the premium income from life insurance policies in the elder care industry not only opens up new investment opportunities for life insurance capital, but also eases the difficulty of implementing the elder care industry’s long-term plan, as well as positively respond to society’s request.

- **Other investors - important supplements in the market**

In addition to the three participants above, other investors in China’s senior housing market include investment funds, trust companies, and enterprise groups.

![Figure 1.4: Major Participants in China’s Senior Housing Market](image)

**Sources**: Deloitte analysis

### 1.2.3 Profit Models

Currently, there are four major profit models in China’s senior housing market.
Table 1.1: Major Profit Models in China’s Senior Housing Market

<table>
<thead>
<tr>
<th>Mode</th>
<th>Characteristics</th>
<th>Typical Project</th>
</tr>
</thead>
</table>
| Sale            | Sale of residential housing products allows the rapid recoupment of funds and transfers ownership to the resident. This method of real estate development under the name of senior housing has the benefit of a shorter capital turnover period and lower risk, therefore it is a common profit model in the current market. | *Vanke Suiyuanjiashu  
*Poly Xitangyue  
*Greentown Wuzhen Yayuan |
| Rent            | Members secure their beds by paying deposits or one-time membership fees or both. They may be given a certain discount when making annual payment on rent, daily necessities, or care.                        | *Taikang Elder Care Community  
*Poly Hexihui  
*Qinheyuan Apartment of the Elderly  
*Starcastle Zhonghuan Elder Care Community |
| Rent + Sale     | This model is often seen in the newly constructed all-round residential community where elderly-adapted housing is sold on the market and the elder care service center built as a supporting commercial facility will be held and operated by the developer in the long run. | *Beijing Vanke Xingfuhi |
| Sale + Buy-back | The ownership of the property is first sold and then bought back by the developer, with the buy-back funds used to cover the elder care and medical treatment costs. After the death of the senior, the remaining principal, if any, will be transferred to the successor and the ownership of the property will be transferred to the developer. | *Beijing Oriental Sun City |

1.3 Discussion of the Key Point and Challenges in Senior Housing Development

1.3.1 Culture

One of the most critical factor that determines whether seniors choose to stay in their home or make a move to a retirement community is their culture.
For thousands of years, China's families have a belief in Confucian doctrine and filial piety has become a moral norm in Chinese culture. The motto of "bringing up kids to support parents in their old age" has been popular for thousands of years. Chinese tradition also advocates multi-generational households and they have remained so for thousands of years, which leads to the factor that majority of senior people are dependent on their descendants for care. Therefore, senior care in China is family-based. It is considered utterly shameful for young generations not to take care of their aging parents in Chinese culture, and most senior people take senior care institution as their last option.

Another hesitation comes from the reputation of senior care institutions. Many seniors as well as their children don't trust senior care institutions since they believe senior housings are largely unregulated in current China. People often read negative reports in media that elder people are abused in such institutions. Therefore, they would rather leave their parents at home than send them to professional care institutions unless there are more administrative and professional agencies responsible for the oversight of senior care providers.

1.3.2 Laws & Regulations

Senior housing industry is largely regulated at the state level in US. The regulatory framework of the states contains common elements, but some states regulate industry more stringently. Compared with the countries with a wealth of elder care industry experience such as Japan, China is lagging far behind in legal development as well as participation of both the government and private capital in the industry. In recent years, China’s government start to introduce preferential and supporting policies and some are listed below in Table 1.2.
### Table 1.2: Laws and Policies on Senior Care Issued Recently in China

<table>
<thead>
<tr>
<th>Time</th>
<th>Laws and Policies</th>
<th>Main Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011.12</td>
<td>&quot;Plan on Constructing an Elder Care Service Social System (2011-2015)&quot;</td>
<td>An elder care social service system will be mostly completed by 2015 that has a sound system, integrated organization, moderate size, good operation and service, effective regulation and supervision and sustainable development. The number of beds for every one-thousand seniors will reach 30. The number of beds for day-care purposes and that in elder care institutions combined will be increased over 3.4 million during the period of the twelfth five-year plan, doubling the current total number of elder care beds.</td>
</tr>
<tr>
<td>2012.12</td>
<td>The Law of the People’s Republic of China on Protecting the Lawful Rights and Interests of the Elderly</td>
<td>It made revisions to the law in 1996 to make it more adapted to the current situation and clarified on the direction of future development.</td>
</tr>
<tr>
<td>2013</td>
<td>Detailed rules on elder care</td>
<td>Provinces and cities such as Hubei, Shandong, Zhejiang and Shenzhen introduced detailed rules on building elder care system and services.</td>
</tr>
<tr>
<td>2013.06</td>
<td>The Administrative Measures on Granting Permission for the Establishment of Elder Care Institutions and the Administrative Measures on Elder Care Institutions</td>
<td>Foreign investors are permitted to establish elder care institutions in the Chinese market in the form of wholly-owned subsidiaries, joint ventures or cooperative operations; In addition, foreign enterprises are allowed to establish medical institutions in the form of wholly-owned subsidiaries within Shanghai Pilot Free Trade Zone.</td>
</tr>
<tr>
<td>2013.09</td>
<td>The Opinions of the State Council on Expediting the Development of Elder Care Service Industry</td>
<td>A moderate sized elder care service system with complete functions covering both cities and rural areas will be built by 2020 on the basis of residential homes, dependent on communities and supported by institutions. It proposes to integrate small and medium enterprises into the elderly service industry cluster, develop elder care service websites and elder care service consumption market.</td>
</tr>
<tr>
<td>2015.03</td>
<td>The Notice of Optimizing the Land Supply to Enhance the Health Development of Real Estate Market</td>
<td>To increase land supply for senior housing development.</td>
</tr>
<tr>
<td>2016.12</td>
<td>Opinion of Fully Liberalize Senior Housing Market and Enhance the Quality of Senior Care</td>
<td>Fully liberalize senior care service market.</td>
</tr>
</tbody>
</table>

1.3.3 Operation

The operation of senior housing is a critical part of project development and directly determines
the capital return. Commercial property development has passed the boom and bust phase and the chances of high growth in the overall real estate market is not high. In the future, effective operational capabilities and the vision for sustainable development will be an important path for buy-and-hold financial products such as REITs to obtain excess returns. Major developers and institutional investors are recruiting talents with such capabilities.

1.3.4 Financing

The low capital liquidity makes it hard for the senior housing industry to achieve economies of scale or sustain a long-term operation without continuous capital infill. Developers and operators have difficulty to break through the profit models and it has become a bottleneck of this industry. Therefore, most of the senior housing projects are still at the stage of “selling houses to the elderly” and the investments in senior housing are often questioned as “enclosure movement” [9].

Limited financing channels have long restrained the senior housing real estate development in China. Due to the suspension of the IPO and re-financing markets in China, real estate companies have to fund most of their projects with traditional methods, such as their own equity, bank loans, or cash generated from sale to support project development and operation. Generally speaking, over 95% of the capital used in real estate development still came from the above three sources. In other countries, however, on top of government investment and policy support in the senior housing market, innovation in other financial instruments have played a vital role, such as REITs and reverse mortgages. But these two financing channels have provided little assistance for China’s senior housing market so far.

[9] “Enclosure Movement” was the legal process in England during the 18th century of enclosing a number of small landholdings to create one larger farm. Enclosure could be accomplished by buying the ground rights and all common rights to accomplish exclusive rights to use, which increased the value of the land.
Chapter 2. Financing Method of Senior Housing Development

The last part of previous chapter mentioned that senior housing investment is relative long-term and capital intensive, and therefore, financing model has become a critical factor that largely determines the success of a development project. This chapter takes a further look at the senior housing financing methods: traditional approaches and alternative approaches.

2.1 The Capital Market Overview

This section provides a big picture of China’s capital asset market, particularly on those financing vehicles available to real estate sector, and depicts how real estate projects get financed in China. It helps us to understand the necessity of bringing alternative vehicles to activate China’s real estate capital market.

Table 2.1 below summarizes the major types of capital asset markets and investment vehicles in the U.S. and in China. It is evident that China’s capital market is still an immature and controlled market, and is in major shortage of various financial products on both equity and debt sectors, compared to other sophisticated markets such as the United States.

| Major Types of Capital Asset Markets and Investment Products, US vs. China |
|-------------------------------------------------|---------------------------------|---------------------------------|
| Public Markets                                  | Private Markets                 |
| **Equity Assets**                               | Stocks                          | Real Property                   |
|                                                 | REITs                           | Private Equity                  |
|                                                 | Mutual Funds                    | Hedge Funds                     |
| **Debt Assets**                                 | Bonds                           | Bank Loans                      |
|                                                 | MBS                             | Whole Mortgages                 |
|                                                 | Money Instruments               | Venture Debt & LBOs             |
### 2.2 The Traditional Approach: Bank Loans, Insurance Capital, Joint Venture

#### 2.2.1 Bank Loans

Bank loans have long been the main capital source for real estate development in China. Banks often require land use rights or properties as collateral. Non-profit senior housing projects are entitled to administration land allocations and the land cost is zero. However, banks don't accept such administration allocations of land use rights as collateral. Profit-oriented senior housing projects are not entitled to administrative land allocations, and the zoning for this kind of projects is usually residential or commercial. Banks do accept such land as collateral, but assess senior housing project at higher-risk levels since their investment periods are much longer than typical residential properties, which leads to higher loan rates. Therefore, it is difficult for developers to get secured lending at a good interest rate from a bank, exerting great pressure for senior housing development. Chinese developers are now looking for other alternative financing channels other than bank loans.

#### 2.2.2 Insurance Capital

Over an extended period of time, insurance companies have accumulated vast amounts of long-term capital, and thus have a unique competitive edge in the senior housing investment market.
Moreover, senior housing industry is a good investment for life insurance companies due to the large investment required, long investment cycle, steady capital inflow toward the middle or the end of the projects, higher long-term comprehensive return on investment, and stronger resistance to risk. The infill of life insurance premium in senior housing not only opens up new investment opportunities for life insurance capital, but also eases the difficulty of implementing the elder care industry’s long-term plan, as well as solves the problem of insufficient capital in elder care communities.

Insurance capital has flown into the housing market in recent years. Tai Kang Insurance, one of the largest insurance companies in China, is the first insurance company to develop CCRC [10] retirement communities in China. Taiping Life has spent 2 billion RMB in building Zhoupu Elder Care Community in Shanghai. In late 2014, the "Announcement on Encouraging Foreign Investors to Establish For-Profit Senior Care Institutions and Engage in Senior Care Services in China", which is jointly issued by the Ministry of Commerce and the Ministry of Civil Affairs of China has largely accelerated the development of senior housing in China. Through this Announcement, the Chinese government encouraged more foreign investors to set up for-profit senior care institutions in China. Foreign entities will be treated equally as domestic entities in terms of tax and fee preferential treatments. With this announcement, it is expected that foreign capital will flow into China's senior housing market.

2.2.3 Joint Venture

Although China’s elder care service is in its infancy, we have seen more and more investors are

[10] CCRC: Continuing Care Retirement Communities. CCRCs are different from other types of senior housing because these communities provide housing, persona services, and health care, usually at one location.
devoting their capital to this market. Many foreign elder care agencies have begun to enter the Chinese domestic market by forming joint ventures with their Chinese counterparts, or by setting up independent elder care service companies in the hopes of capturing market share in the Chinese elder care service market. For example, in August 2012, Fortress Investment Group, an experienced operator in the elder care business, established Starcastle Elderly Service Co. Ltd. as a JV in partnership with Fosun Group, and launched their first elder care community called “Starcastle Zhonghuan” in May 2013 in Shanghai. Unlike the strategy employed by those real estate developers who are focusing on senior housing development, the foreign owned institutions emphasize on the provision of matured elder care, offering elder care services from the facilities they rent and renovate in residential neighborhoods inside the cities.

2.3 The Alternative Approach: CMBS, Crowd Funding, REITs

In those advanced capital markets, some other alternative financing approaches are commonly used in senior housing industry:

2.3.1 CMBS

Commercial mortgage-backed securities (CMBS) are a type of mortgage-backed security that is secured by mortgages on commercial properties, instead of residential real estate. A CMBS can provide liquidity to real estate investors and commercial lenders.\footnote{Definition refers to Investopedia.com} As with other types of MBS, the increased use of CMBS can be attributable to the rapid rise in real estate prices over the years, especially in senior housing market.
For example, Freddie Mac offered its first Structured Pass-Through Certificates (SPTC) called Series K-S01, which is backed exclusively by multifamily mortgages on seniors housing properties in 2013. Each Class of SPCs represents a pass-through interest in a separate class of securities issued by the Underlying Trust. The detailed structure of this SPC is as follows:

**Table 2.2: Structure of Freddie Mac Series K-S01**

<table>
<thead>
<tr>
<th>Class</th>
<th>Original Principal Balance or Notional Amount</th>
<th>Class</th>
<th>CUSIP Number</th>
<th>Final Payment Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1</td>
<td>$165,205,000</td>
<td>1.6930%</td>
<td>3137B1U67</td>
<td>January 25, 2022</td>
</tr>
<tr>
<td>A-2</td>
<td>203,737,000</td>
<td>2.5220</td>
<td>3137B1U75</td>
<td>January 25, 2023</td>
</tr>
<tr>
<td>X1</td>
<td>368,942,000</td>
<td>(2)</td>
<td>3137B1U83</td>
<td>January 25, 2023</td>
</tr>
</tbody>
</table>

(1) Approximate. May vary by up to 5%
(2) See Terms Sheet — Interest.
Sources: Offering Circular Supplement of Freddie Mac SPCs Series K-S01

Generally speaking, A CMBS can provide liquidity to both real estate investors and commercial lenders, thus it is a practical way for financing in senior housing development.

### 2.3.2 Crowd-Funding

Senior living developers are finding creative ways to fund their upcoming development projects, with a select few taking advantage of federal regulations and programs to produce cost savings.

The success of crowd-funding can provide a secure online platform to connect accredited investors with professionally-managed real estate investment opportunities.

Utilizing the crowdfunding platform enabled investment institution to not only increase its pool of investors nationwide, but it also helped the company save broker fees that it would have paid under more traditional financing methods.

In 2015, Chinese real estate conglomerate Dalian Wanda Group has raised a total of five billion yuan ($805 million) from its crowdfunding app and from an online payments site in three days.
indicating ample appetite from investors for such online financial-investment products. The investors would gain annualized returns of 12% and the minimum investment threshold for this product is only 1,000 yuan.

2.3.3 REITs

Spurred by overall attractive returns and healthy marketplace, health care REITs is active in senior housing capital market. There’s no doubt that the public companies have a distinct advantage on the cost of capital front, especially in senior housing market which obviously has a huge potential positive for the business.

![Figure 2.1: REIT basic structure](image)

2.4 Summary

Real estate is a capital intensive business in China. China’s real estate sector comprises a relative large percentage of GDP - about 15% - and it includes important linkages to the rest of the economy. However, nowadays, real estate projects are experiencing difficulties in getting

---


financed in China. Bank loan is still the primary source of financing but in the form of short-term construction loans only. Alternative financing vehicles are very limited, which poses tremendous pressure on the balance sheets of the real estate companies, especially when the Central Government poses macro-control policies by tightening bank lending. Therefore, the demand for an efficient and liquid financing vehicle such as REITs is highly desirable to activate the real estate capital market. However, China’s unique development history and features of the real estate sector, such as a lease-hold land system, taxation system and current regulation on trust, pose great challenge to the adoption and development of REITs in China.
Chapter 3. The Role REITs can Play in Senior Housing Development

The type of company referred to as a “REIT” (Real Estate Investment Trust), a vertically integrated operating company providing commercial real estate investment goods and services throughout the “food chain”, is an important component of modern real estate market. In this chapter, the features of REITs, especially its practice in senior housing industry is discussed. Moreover, a quick introduction of the valuation of REITs and the performance of health care REITs in current US market is revealed.

3.1 An Overview of REITs

A real estate investment trust (REIT) is a company that owns or finances income-producing real estate, which typically acquires investment-grade, income-producing properties such as office buildings, business parks, shopping malls, hotels and serviced apartments. Gross income, most of which is usually rental income collected by the REIT entity, is consolidated at the REIT level and is distributed to the shareholders as dividend.

The REIT investment vehicle was created by Congress in 1960 through legislation called the Real Estate Investment Trust Act, which authorized a real estate ownership structure with tax treatment similar to that of mutual funds: a pass-through entity that distributes most of its earnings and capital gains. [14] Market capitalization of the U.S. REITs has grown from less than $10 billion in 1990, to more than $996.3 billion today. [15] Nearly sixty years into the making, the REIT market is flattening in the U.S. due in part to consolidation and privatization. However, REITs are being introduced in other parts of the world and are just in the early stages of their growth cycle.

Recognized as the world's fastest growing real estate market with substantial commercial property assets that are of investment grade, China has the potential to be a huge “REIT phenomenon” if the underlying structure for REITs is put in place.

3.2 Pros and Cons of REITs Financing

Investments in REITs offer a number of advantages compared to direct investments in physical real estate [16]:

- **Superior Liquidity.** Investors in publicly traded real estate securities enjoy far greater liquidity than do investors in physical real estate, because REIT shares trade daily on a stock exchange. The low liquidity of a direct real estate investment stems from the relatively high value of an individual real estate property and the unique nature of each property.

- **Lower Minimum Investment.** While a direct investment in a real estate property may require a multi-million dollar commitment, REIT shares trade for much smaller dollar amounts.

- **Limited Liability.** The final liability of a REIT investor is limited to the amount invested. Other types of investment in real estate, such as a general partnership interest, have potential liabilities greater than the investor’s initial investment.

- **Access to Premium Properties.** Some prestigious properties, such as high-profile shopping malls or other prominent or landmark buildings, are difficult to invest in directly. Shares in REITs that have invested in these properties represent one way to take an ownership stake in these assets.

• **Active Professional Management.** While a direct investment in properties requires a degree of real estate investment expertise and property management skill, REIT investments do not. REITs employ professional management to control expenses, maximize rents and occupancy rates, and sometimes to acquire additional properties.

• **Protections Accorded to Publicly Traded Securities.** REITs must meet the same requirements applicable to other publicly traded companies, including rules related to financial reporting, disclosure, and governance. Investors benefit from these securities regulations and from having a broad overseeing the management on behalf of investors. Additionally, having public investors monitor the actions of management and the board of directors leads to financial and operating efficiency.

• **Greater Potential for Diversification.** Because of the high cost of a single property, it is difficult to achieve adequate diversification though direct investments in real estate. Through REITs, however, an investor can diversify across property type and geographical location.

• **Exemption from Taxation.** As long as certain requirements are met, REITs enjoy favorable taxation, because a major part of REIT distributions are treated as a return of capital and are thus not taxable.

• **Predictable Earnings.** The earnings of REITs tend to be relatively consistent over time, because REIT’s rental income is fixed by contracts, unlike the income of companies in other industries.

• **High Yield.** To maintain their tax-advantaged status, REITs are obligated to pay out most of their taxable income as dividends. Because of this high income payout ratio, the yields of REITs are higher than the yields on most other publicly traded equities.

On the other hand, disadvantages of investing in real estate through REITs may include:
• **Taxes versus Direct Ownership.** Depending on local laws, investors that make direct investments in properties may be able to deduct losses on real estate from taxable income or replace one property for a similar property without taxation on the gains. For investors in REITs, these specific tax benefits are not available.

• **Lack of Control.** REIT investors have comparatively little input into investment decisions compared to investors that make direct investments in real estate.

• **Costs of a Public Traded Corporate Structure.** These are clear benefits form maintaining a publicly traded REIT structure. However, there are also related costs, which may not be worthwhile for smaller REITs.

• **Price is Determined by the Stock Market.** While the appraisal-based value of a REIT may be relatively stable, the market-determined price of a REIT share is likely to be much more volatile. While this relationship suggests a direct real estate investment is less risky, in reality much of this effect results from the underestimation of volatility that is associated with appraised values; appraisals tend to be infrequent and backward-looking, while the stock market is continuous and reflects forward-looking values.

• **Structural Conflicts of Interest.** When a REIT is structured as an UPREIT or a DOWNREIT there is the potential for conflict of interest. When the opportunity arises to sell properties or take on additional borrowing, a particular action may have different tax implications for REIT shareholders and for the general partners, which may tempt the general partners to act in their own interest, rather than in the interest of all stakeholders.

• **Limited Potential for Income Growth.** REITs’ high rates of income payout limit REIT’s ability to generate future growth through reinvestment. This limits future income growth and may dampen the share price of REITs.
• **Forced Equity Issuance.** In order to maintain financial leverage, REITs frequently participate in bond markets to refinance maturing debt. When credit is difficult to obtain, a REIT may be forced to issue equity at a disadvantageous price.

• **Lack of Flexibility.** The rules that qualify REITs for favorable taxation also have a downside: REITs are prevented from making certain kinds of investments and from retaining most of their income. These limits may prevent REITs for being as profitable as they might otherwise be.

3.3 Motivations of Launching REITs for Senior Housing Development in China

This section will discuss the necessity for China to launch REITs to enhance the development of its senior housing.

• **China’s real estate market asks for new financing tools when marching towards the end of golden decade of extreme fast growth.**

From the demand side, a new policy on tightening and restricting the mortgage of second house makes lending become more difficult for households. The government’s determination to rein in price growth should not be underestimated.

• **Government needs a liquid way to finance senior housing development to meet the huge potential need.**

Today, facing the increasing elder care pressure, the Chinese government has been making an effort to enhance elder care product offerings of different levels to meet various elder care needs while paying respect to the Chinese elder care tradition.

REITs primarily seek good quality assets with a stable income stream and low risk. They therefore provide another exit route for other property investors who have a different risk appetite. REITs is
especially fit for the development of senior housing as the cost is higher than typical residential because of the infrastructure required and the daily operation expenses.

- **Social Security Fund and local insurance companies need a reliable and low risk investment instruments.**

Real Estate is regarded as a reliable instrument for inflation hedging. Historically, REITs performed better than the equity and fixed-income. It has a larger sharp ratio, average return to volatility, than the latter two. Thus, REITs turn out with a higher return when undertaking the same level of risk, or it undertakes a lower risk when getting the same return. These benefits attract investors who are seeking a reliable and low risk investment instruments. In China, Social Security Fund and local insurance companies would be especially interested in this type of investment instrument.

### 3.4 Dilemmas of the Implementation of REITs in China

This section will have an overview of current status of China’s REITs environment in terms of legal, policy, finance, market and talents, and how they hamper the development of China’s REITs market.

- **The lack of a clear legal status in China**

The two mainstream overseas REIT launching channels are both in conflict with the existing legislation. The establishment and issuance of REITs in the form of a joint stock limited
company\textsuperscript{[17]} or a limited liability company\textsuperscript{[18]} conflicts with the Company Law regulation\textsuperscript{[19]} which stipulates that a company’s external investment shall not exceed 50% of its net assets. This is a big obstacle to REITs enterprises whose growth mainly depends on acquisition of new real estate projects. In addition, there is potential conflict of interest arising from confusion between corporate management and real estate project management. The dilemma of double agency is apparent in terms of sponsoring and commissioning in this structure. The issuance of REITs in the form of a mature overseas real estate investment trust management company would conflict with the Securities Investment Fund Law \textsuperscript{[20]} which states that the fund supervisors “shall not mix their existing assets or a third party’s assets with fund assets as their securities investment”. Thus, REIT in the strict sense of the term cannot appear until the relevant provisions of the Securities Investment Fund Law are modified.

- **The lack of favorable policy support and double taxation of REITs in China**

REITs enjoy preferential taxation status in most countries. They are considered as an income transmission tool and are exempted from income tax. Under the current China taxation system, a 11.0% VAT \textsuperscript{[21]} and a certain percentage of property tax is levied on commercial property rental income (the property tax rate for commercial properties is calculated based on the residual value of a property at a tax rate of 1.2%, or based on the property rental income at a tax rate of 12%).

\textsuperscript{[17]} Joint Stock Company: a business entity in which different amount of shares of the company stock can be bought and owned by shareholders. Each shareholder owns company stock in proportion, evidenced by their shares.

\textsuperscript{[18]} Limited Liability Company: a business structure that combines the pass-through taxation of a partnership or sole proprietorship with the limited liability of a corporation.


\textsuperscript{[21]} Notice of the Ministry of Finance and the State Administration of Taxation on Comprehensively Implementing the Pilot Program of Replacing Business Tax with Value-Added Tax, NO. 36, Ministry of Finance, 2016
On top of this, there is a 25% income tax. Based on a rough estimation, net income is only 60% - 70% of the gross rent received.

According to the Individual Income Tax Law of the People’s Republic of China, the interest, dividends and bonus income acquired by individual creditor and equity owner shall be the taxable at a flat tax rate of 20% every time. For the preferential measures, please refer to the provisions of the “Notice of the Ministry of Finance, the State Administration of Taxation and China Securities Regulatory Commission on Issues concerning the Implementation of Differential Individual Income Tax Policies on Dividends and Bonuses of Listed Companies (CS [2012] No. 85)”.

Tax obligations are categorized by the dividends and bonus incomes acquired from the dividends of listed companies based on the holding time as shown in Table 3.1. In other words, the double taxation is still obliged.

Table 3.1: China’s Real Estate-related Taxes

<table>
<thead>
<tr>
<th>REITs Property</th>
<th>Tax Basis</th>
<th>Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate Tax</td>
<td>Residential Value of Property</td>
<td>1.2%</td>
</tr>
<tr>
<td></td>
<td>Rental Income</td>
<td>12.0%</td>
</tr>
<tr>
<td>Urban Construction</td>
<td>Rental Income</td>
<td>0.5%</td>
</tr>
<tr>
<td>Tax &amp; Additional Tax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAT</td>
<td>VAT Payable (Output - Input)</td>
<td>11.0%</td>
</tr>
<tr>
<td>Income Tax</td>
<td>Profit</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual Investors</th>
<th>Tax Basis</th>
<th>Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Tax (Interest, Dividend, Bonus)</td>
<td>The holding time is less than one month</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>The holding time is one month to one year</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>The holding time is more than one year</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Source: Compiled by INSITE Corporate Research Center based on publicly available data
• **Positioning for a balance between risks and benefits of REIT products**

According to statistics, the annualized rate of return of the US market MSCI REIT Index was 10.2% between 2004 and 2014. The annualized gain in the US stock market composite index was 8.5% over the same period. In most cases, REIT products outperformed the stock index. In addition, since the products were designed with an emphasis on dividends, investors generally received an annual amount ranging from 3% to 5% to improve their cash flow. However, it is worth noting that there is a high correlation between the yield curve of REITs and that of the stock market. Moreover, the volatility of REITs is higher than that of the stock market. During the financial crisis in 2008, a decline of 65% occurred. Therefore, the equity REITs traded in open exchanges are risky and are not entirely at an advantage compared with other investment products. In other words, the risk adjusted return\(^{[22]}\) of REITs perform no better than stocks.

• **Lack of high quality real estate properties for the issuance of REITs in China**

Although the amount of commercial real estate properties in China has increased rapidly, high quality properties with a clear ownership structure and stable return that are suitable for the issuance of REITs are still rare.

On the other hand, the low proportion of developers holding and operating the properties they have developed has diminished the market basis for REITs sector. Most developers still derive their income from property sales and do not have a strong interest in long-term holding. Based on the historical statistics since 2000, the proportion of the rental income to the sales of commodity housing (residential and commercial) has remained stuck within the range of 1.5% to 2.5% in

\(^{[22]}\) Risk-adjusted return: refines an investment’s return by measuring how much risk is involved in producing that return, which is generally expressed as a number or rating.
China, which is far lower than the average market. The relatively low rental yield is unable to satisfy the expected return of REITs which mainly depend on rental income. At present, even in top cities such as Shanghai and Beijing where the property market is the most developed in China, the average net rental yields rarely exceed 5%. Under such circumstances, few underlying projects can offer attractive REITs products.

- Lack of talent in China’s REITs industry

The REIT industry involves professional disciplines such as financial structure design, asset management allocation and project operation adjustment. Though several quasi-REITs with Chinese characteristics have emerged, the actual operations are still in the hands of a few professional teams. At present, the design of financial products faces a complex approval process, asset qualitative analysis, pricing, etc. As a class of financial products and financial investment instruments, REITs require professional management teams that specialize in post-investment. In the long run, talents are required for re-investment and trading of open-ended REITs and our current professionals are far from enough.

3.5 The Valuation of REITs

By adopting the Discounted Cash Flow method used to value an underlying property, a REIT can derive its value by discounting the stream of dividends that stockholders of that REIT expect to get by an appropriate cap rate. Now, however, the net cash flows that matter are the dividends paid out by the REIT to its stockholders, instead of just the property-level net cash flow generated by the property assets.

$$Value = \sum_{t=1}^{\infty} \frac{Dividend_t}{(1 + r)^t}$$
or under the assumption of a constant dividend,

\[
Value = \frac{Dividend}{\text{Cap Rate}} = \frac{Dividend}{r - g}
\]

Alternatively, the Net Asset Value approach can also be used to derive the value of a REIT, based on the net value of its existing asset base, which is then divided per share to derive the NAV per share. This is then compared to REIT share prices in the stock market, and a premium or discount is added to account for expectations of future growth (or lack of growth) achieved through good management strategy and sound corporate governance. \[23\]

The following formula summarizes the NAV approach:

\[
Value = \frac{(Total\ Assets - REIT\ Liabilities)}{No.\ of\ Shares} + \text{Premium}
\]

There is strong debate as to which methodology gives a better sense of a REIT’s intrinsic value, with financial advisors often using one method to countercheck the other. But, like all real estate valuation methodologies, a REIT’s value is ultimately subject to the relationship of demand and supply, and the true price is whatever price the market will take.

### 3.6 Performance of Current Senior Housing REITs in US

This section will have an overview of the performance of health care REITs in US, which is regarded as the most developed capital market in the world.

The current performance of different REITs Sectors is compared in Tables 3.2 - 3.4 below:

---

\[23\] Green Street Advisors, “REIT Valuation: The NAV-based Pricing Model”, 2014
Table 3.2: US REIT Performance Statistics by Property Sector and Subsector (Part 1 of 3)

<table>
<thead>
<tr>
<th>Property Sector</th>
<th>Subsector</th>
<th>High Yield (%)</th>
<th>Total Return (%)</th>
<th>FFO Dividend Yield (%)</th>
<th>Dividend Payout (%)</th>
<th>Leverage Ratio (%)</th>
<th>Average Share Volume (S)</th>
<th>Average Dollar Volume (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>Office</td>
<td>3.91</td>
<td>3.878</td>
<td>8.80</td>
<td>4.198</td>
<td>39.2</td>
<td>604</td>
<td>20,327</td>
</tr>
<tr>
<td>Industrial</td>
<td>Industrial</td>
<td>3.17</td>
<td>6,002.2</td>
<td>7.23</td>
<td>6,230.6</td>
<td>26.2</td>
<td>744</td>
<td>28,887</td>
</tr>
<tr>
<td>Retail</td>
<td>Shopping Centers</td>
<td>6.03</td>
<td>3,288.0</td>
<td>2.13</td>
<td>3,364.6</td>
<td>34.7</td>
<td>431</td>
<td>33,644</td>
</tr>
<tr>
<td>Residential</td>
<td>Manufactured Homes</td>
<td>2.24</td>
<td>11,393.8</td>
<td>5.04</td>
<td>11,384.0</td>
<td>43.9</td>
<td>3,717</td>
<td>116,672</td>
</tr>
<tr>
<td>Mortgage</td>
<td>Commercial Financing</td>
<td>4.97</td>
<td>3,286.5</td>
<td>2.13</td>
<td>3,425.8</td>
<td>42.7</td>
<td>1,285</td>
<td>21,423</td>
</tr>
<tr>
<td>Health Care</td>
<td>Health Care</td>
<td>5.49</td>
<td>5,347.9</td>
<td>8.80</td>
<td>5,352.2</td>
<td>36.8</td>
<td>1,432</td>
<td>44,294</td>
</tr>
</tbody>
</table>

Table 3.3: US REIT Performance Statistics by Property Sector and Subsector (Part 2 of 3)

<table>
<thead>
<tr>
<th>Property Sector</th>
<th>Subsector</th>
<th>May-17</th>
<th>QTD</th>
<th>YTD</th>
<th>1-Yr</th>
<th>3-Yr</th>
<th>5-Yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>Office</td>
<td>-1.15</td>
<td>0.06</td>
<td>0.44</td>
<td>11.59</td>
<td>6.57</td>
<td>10.83</td>
</tr>
<tr>
<td>Industrial</td>
<td>Industrial</td>
<td>3.51</td>
<td>10.21</td>
<td>9.39</td>
<td>28.44</td>
<td>18.18</td>
<td>17.83</td>
</tr>
<tr>
<td>Retail</td>
<td>Shopping Centers</td>
<td>-10.27</td>
<td>-1.73</td>
<td>-1.21</td>
<td>-21.43</td>
<td>-19.30</td>
<td>-1.91</td>
</tr>
<tr>
<td>Residential</td>
<td>Manufactured Homes</td>
<td>4.23</td>
<td>9.24</td>
<td>14.90</td>
<td>40.82</td>
<td>26.93</td>
<td>21.21</td>
</tr>
<tr>
<td>Mortgage</td>
<td>Home Financing</td>
<td>-0.56</td>
<td>-1.12</td>
<td>-2.67</td>
<td>-17.44</td>
<td>0.90</td>
<td>8.79</td>
</tr>
</tbody>
</table>

Table 3.4: US REIT Performance Statistics by Property Sector and Subsector (Part 3 of 3)

<table>
<thead>
<tr>
<th>Property Sector</th>
<th>Subsector</th>
<th>Dividend Yield (%)</th>
<th>Equity Market Cap (S)</th>
<th>Implied Market Cap (S)</th>
<th>Debt Ratio (%)</th>
<th>Average Share Volume</th>
<th>Average Dollar Volume</th>
<th>Relative Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>Office</td>
<td>3.91</td>
<td>3,878</td>
<td>4,198</td>
<td>39.2</td>
<td>604</td>
<td>20,327</td>
<td>0.494</td>
</tr>
<tr>
<td>Industrial</td>
<td>Industrial</td>
<td>3.17</td>
<td>6,002.2</td>
<td>6,230.6</td>
<td>26.2</td>
<td>744</td>
<td>28,887</td>
<td>0.557</td>
</tr>
<tr>
<td>Retail</td>
<td>Shopping Centers</td>
<td>6.03</td>
<td>3,288.0</td>
<td>2.13</td>
<td>3,364.6</td>
<td>34.7</td>
<td>431</td>
<td>33,644</td>
</tr>
<tr>
<td>Residential</td>
<td>Manufactured Homes</td>
<td>2.24</td>
<td>11,393.8</td>
<td>5.04</td>
<td>11,384.0</td>
<td>43.9</td>
<td>3,717</td>
<td>116,672</td>
</tr>
<tr>
<td>Mortgage</td>
<td>Commercial Financing</td>
<td>4.97</td>
<td>3,286.5</td>
<td>2.13</td>
<td>3,425.8</td>
<td>42.7</td>
<td>1,285</td>
<td>21,423</td>
</tr>
</tbody>
</table>

Source: NAREIT REIT Watch, May 31, 2017

42
As shown in Tables 3.2 - 3.4 above, US Health Care REIT sector is relative profitable, especially for long-term (5-year) investment.
[This page intentionally left blank]
Chapter 4. Case Study of Senior Housing REITs

With the current absence of REITs in China, this chapter tries to draw experience from US, one of the most matured REITs regimes in the world. A further examination of one specific US REIT in Health Care industry will then be introduced as an example to gain “bricks and mortars” insights in senior housing REITs practice.

4.1 Case 1 - Welltower Inc. (Health Care REIT)

Welltower Inc. (NYSE: HCN) was one of the first companies of its kind to invest in seniors housing, which includes independent living, assisted living and memory care communities. Seniors housing is redefining the concept of home for the elderly. These centers of wellness provide assistance with activities of daily living that preserve a person’s mobility and social systems to promote cognitive engagement.

4.1.1 Company Profile

The basic summary of Welltower Inc. is listed as below:

<table>
<thead>
<tr>
<th>Table 4.1: Company Profile of Welltower Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website</td>
</tr>
<tr>
<td>Address</td>
</tr>
<tr>
<td>Toledo, OH 43615</td>
</tr>
<tr>
<td>No of Employees</td>
</tr>
<tr>
<td>Mkt Cap(M)</td>
</tr>
</tbody>
</table>

YTD Return | 11.76 |
52 Week Return | 1.35 |
Next Earnings Announcement | 07/28/17 |
Prior Announcement | 05/05/17 |

Source: Website of Welltower Inc. and Bloomberg, July 10th, 2017

HCN REIT is internally managed by Welltower Inc.. The detailed management information is shown in Table 4.2:
Table 4.2: Management Information of Welltower Inc.

<table>
<thead>
<tr>
<th>Executives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Executives</td>
<td>14</td>
</tr>
<tr>
<td>Average Reported Compensation (MM)</td>
<td>7.35</td>
</tr>
<tr>
<td>Average Age</td>
<td>-</td>
</tr>
<tr>
<td>Average Tenure</td>
<td>4.03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Board Members</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Board Members</td>
<td>10</td>
</tr>
<tr>
<td>Independent Directors</td>
<td>9</td>
</tr>
<tr>
<td>Members Owning Shares</td>
<td>10</td>
</tr>
<tr>
<td>On Boards of Peers</td>
<td>10.00</td>
</tr>
<tr>
<td>On Boards of Other Companies</td>
<td>8.00</td>
</tr>
<tr>
<td>Average Age</td>
<td>-</td>
</tr>
<tr>
<td>Average Tenure (Years)</td>
<td>10.12</td>
</tr>
</tbody>
</table>

Source: Bloomberg, July 10th, 2017

4.1.2 Legal Filing and Reporting

REITs companies are required to conform with the regulation and code, and obliged to filing and reporting regularly.

The typical filing required by US REITs include but not limit to:

- SEC Form 10-K: annual reports;
- SEC Form 10-Q: quarterly reports;
- SEC Form 8-K: the “current report” companies must file with the SEC to announce major events that shareholders should know about;
- SEC Form 4: relates to insider trading;
- SEC Form 144: an affiliate of the issuer as a notice of the proposed sale of securities in reliance on Rule 144;
- SEC Form DEF 14A: be filed by or on behalf of a registrant when a shareholder vote is required;
- SEC 13G: report a party’s ownership of stock that is over 5% of the company;
- Prospectus, Supplement, earnings call, etc.

Below is the snapshot of Welltower Inc.'s recent legal filings.
4.1.3 Capital Structure

The current capital structure of Welltower Inc. is shown in Figure 4.2:

Figure 4.2: Capital Structure of Welltower Inc.

Source: Bloomberg, July 10th, 2017

One criterion of choosing the capital structure is to maximize real risk-adjusted performance by matching the maturity (or duration) of nominal liabilities with nominal assets.

The market equity is around 66.3% of the total capital, which matches the typical capital structure of publicly traded REITs firms in the US.
On the equity side, apart from raising equity capital through REITs in public capital market, publicly traded REITs companies have another common way to expand their equity raising privately through joint ventures with senior housing operation companies of various types since senior housing industry is operation-intensive. Developers prefer to cooperate with operating companies to minimize the risk, especially in the operation phase. In other words, the provider of the senior housing real estate is dependent on a specialized senior housing operator/manager in order for the overall “product” to be successful (i.e., sufficiently profitable). The “product” is the combination of the real estate and the provision of the specialized senior housing services. Expertise in senior housing service provision, and expertise in senior housing real estate provision, may be sufficiently different that it typically resides in two separate firms. By working together in a JV, they reduce the risk of failure, increase the probability of success. This helps to make the venture appealing to financial investors, helping to raise capital for the joint operation. It also combines the forces of the two firms, increasing their overall sources of capital.

On the debt side, sufficient debt raises the leverage which can turn low-risk, low-growth underlying assets into high-risk, high-growth investments from the perspective of the equity

---

**Figure 4.3: Typical Components of REIT Capital Structures**

Source: Real Estate Economics, V00: pp. 1-47, 2015
owner/manager of the property. This, in turn, may enhance the productivity and the value of the underlying real physical assets. With leverage, developers and operators in the senior housing industry may have greater incentive to pay more attention to the details and opportunities in the business, which may pay off, as senior housing industry is, again, a management-intensive sector.

The following table shows the top ownership of Welltower Inc. by geography, institution and company respectively.

Table 4.3: Ownership of Welltower Inc.

<table>
<thead>
<tr>
<th>Ownership: Top 5 by Country</th>
<th>Ownership: Top 15 by % of Shares Outstanding Held</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITED STATES 82.47%</td>
<td>VANGUARD GROUP 14.26%</td>
</tr>
<tr>
<td>CANADA 3.20%</td>
<td>BLACKROCK 9.70%</td>
</tr>
<tr>
<td>JAPAN 2.80%</td>
<td>STATE STREET CORP 5.83%</td>
</tr>
<tr>
<td>IRELAND 2.20%</td>
<td>FMR LLC 3.32%</td>
</tr>
<tr>
<td>BRITAIN 2.00%</td>
<td>INVESTITION 2.75%</td>
</tr>
<tr>
<td></td>
<td>LASALLE INVESTMENT M 2.40%</td>
</tr>
<tr>
<td></td>
<td>MORGAN STANLEY 1.86%</td>
</tr>
<tr>
<td></td>
<td>BNY MELLON 1.86%</td>
</tr>
<tr>
<td></td>
<td>DEUTSCHE BANK AG 1.86%</td>
</tr>
<tr>
<td></td>
<td>PRINCIPAL FINANCIAL 1.80%</td>
</tr>
<tr>
<td></td>
<td>CBRE GROUP INC 1.61%</td>
</tr>
<tr>
<td></td>
<td>NORTHERN TRUST CORPO 1.56%</td>
</tr>
<tr>
<td></td>
<td>EPOCH INVESTMENT PAR 1.54%</td>
</tr>
<tr>
<td></td>
<td>DIMENSIONAL FUND ADV 1.34%</td>
</tr>
<tr>
<td></td>
<td>GOLDMAN SACHS GROUP 1.32%</td>
</tr>
</tbody>
</table>

Source: Bloomberg, July 10th, 2017

We can notice that majority of HCN REITs are held by individual investors (82.47%). Moreover, the top 5 shareholders hold 35.86% in total, which meets the requirement that “no more than 50 percent of its shares are held by five or fewer individuals”.

4.1.4 Financial Analysis

Some key financial figures of Welltower Inc. are listed below:

Table 4.4: Fiscal Year Financial Performance and Estimates (USD Millions, Welltower Inc.)

<table>
<thead>
<tr>
<th></th>
<th>12/13</th>
<th>12/14</th>
<th>12/15</th>
<th>12/16E</th>
<th>12/17E</th>
<th>12/18E</th>
<th>12/19E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>2,881</td>
<td>3,344</td>
<td>3,860</td>
<td>4,281</td>
<td>4,279</td>
<td>4,470</td>
<td>4,814</td>
</tr>
<tr>
<td>Growth %</td>
<td>59.6</td>
<td>16.1</td>
<td>15.4</td>
<td>10.9</td>
<td>-0.0</td>
<td>4.5</td>
<td>7.7</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gross Margin %</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>EBITDA</td>
<td>1,439</td>
<td>1,718</td>
<td>1,935</td>
<td>2,149</td>
<td>2,063</td>
<td>2,184</td>
<td>2,328</td>
</tr>
<tr>
<td>EBITDA Margin %</td>
<td>49.9</td>
<td>51.4</td>
<td>50.1</td>
<td>50.2</td>
<td>49.2</td>
<td>49.8</td>
<td>49.4</td>
</tr>
<tr>
<td>Operating Profit</td>
<td>564</td>
<td>873</td>
<td>1,195</td>
<td>1,248</td>
<td>988</td>
<td>1,103</td>
<td>-</td>
</tr>
<tr>
<td>Operating Margin %</td>
<td>19.6</td>
<td>26.1</td>
<td>28.6</td>
<td>29.1</td>
<td>23.1</td>
<td>24.7</td>
<td>-</td>
</tr>
<tr>
<td>Net Income (Adj)</td>
<td>62</td>
<td>449</td>
<td>798</td>
<td>725</td>
<td>814</td>
<td>756</td>
<td>847</td>
</tr>
<tr>
<td>Profit Margin %</td>
<td>5.0</td>
<td>15.3</td>
<td>22.9</td>
<td>25.2</td>
<td>19.0</td>
<td>16.9</td>
<td>17.8</td>
</tr>
<tr>
<td>Return On Assets %</td>
<td>0.7</td>
<td>2.1</td>
<td>3.3</td>
<td>3.7</td>
<td>4.3</td>
<td>4.8</td>
<td>8.0</td>
</tr>
<tr>
<td>Return On Equity %</td>
<td>0.8</td>
<td>4.0</td>
<td>6.4</td>
<td>7.5</td>
<td>7.5</td>
<td>8.5</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Source: Bloomberg, July 10th, 2017
Table 4.5: Key Statistics Highlights (USD Millions, Welltower Inc.)

<table>
<thead>
<tr>
<th></th>
<th>2016-12-31</th>
<th>2015-12-31</th>
<th>2014-12-31</th>
<th>2013-12-31</th>
<th>2012-12-31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Capitalization</td>
<td>26,000.78</td>
<td>24,135.52</td>
<td>24,879.54</td>
<td>15,511.92</td>
<td>15,958.31</td>
</tr>
<tr>
<td>Cash &amp; Equivalents</td>
<td>419.38</td>
<td>360.91</td>
<td>473.73</td>
<td>158.78</td>
<td>1,033.76</td>
</tr>
<tr>
<td>Preferred &amp; Other</td>
<td>2,167.26</td>
<td>1,774.66</td>
<td>1,399.56</td>
<td>1,394.15</td>
<td>1,283.23</td>
</tr>
<tr>
<td>Total Debt</td>
<td>12,458.39</td>
<td>12,867.69</td>
<td>10,776.64</td>
<td>10,052.01</td>
<td>9,331.50</td>
</tr>
<tr>
<td>Enterprise Value</td>
<td>40,105.81</td>
<td>38,518.96</td>
<td>36,573.01</td>
<td>27,399.31</td>
<td>24,739.67</td>
</tr>
<tr>
<td>Revenue</td>
<td>4,281.16</td>
<td>3,859.83</td>
<td>3,343.55</td>
<td>2,860.61</td>
<td>1,805.04</td>
</tr>
<tr>
<td>Growth %, YoY</td>
<td>10.92</td>
<td>15.44</td>
<td>16.07</td>
<td>59.59</td>
<td>35.71</td>
</tr>
<tr>
<td>Rental Income</td>
<td>4,153.55</td>
<td>3,756.98</td>
<td>3,298.00</td>
<td>2,843.88</td>
<td>1,760.71</td>
</tr>
<tr>
<td>Growth %, YoY</td>
<td>10.56</td>
<td>13.92</td>
<td>15.97</td>
<td>61.52</td>
<td>37.80</td>
</tr>
<tr>
<td>Operating Income</td>
<td>1,247.81</td>
<td>1,104.54</td>
<td>873.32</td>
<td>564.17</td>
<td>544.88</td>
</tr>
<tr>
<td>Net Income Before NOI</td>
<td>1,062.07</td>
<td>888.55</td>
<td>505.17</td>
<td>86.57</td>
<td>180.78</td>
</tr>
<tr>
<td>Margin %</td>
<td>25.09</td>
<td>23.62</td>
<td>15.11</td>
<td>3.01</td>
<td>10.02</td>
</tr>
<tr>
<td>FFO/Share, Diluted</td>
<td>4.39</td>
<td>4.03</td>
<td>3.82</td>
<td>3.32</td>
<td>3.09</td>
</tr>
<tr>
<td>Growth %, YoY</td>
<td>8.93</td>
<td>5.50</td>
<td>15.06</td>
<td>7.44</td>
<td>2.66</td>
</tr>
<tr>
<td>Dividends per Share</td>
<td>3.44</td>
<td>3.30</td>
<td>3.18</td>
<td>3.06</td>
<td>2.96</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>5.14</td>
<td>4.85</td>
<td>4.20</td>
<td>5.71</td>
<td>4.83</td>
</tr>
<tr>
<td>Capital Exp/FFO</td>
<td>1.78</td>
<td>2.69</td>
<td>2.16</td>
<td>4.30</td>
<td>4.90</td>
</tr>
<tr>
<td>Rental Income</td>
<td>4,153.55</td>
<td>3,756.98</td>
<td>3,298.00</td>
<td>2,843.88</td>
<td>1,760.71</td>
</tr>
<tr>
<td>Total Revenues</td>
<td>4,281.16</td>
<td>3,859.83</td>
<td>3,343.55</td>
<td>2,860.61</td>
<td>1,805.04</td>
</tr>
<tr>
<td>Net Operating Income (NOI)</td>
<td>4,195.85</td>
<td>2,237.57</td>
<td>1,972.21</td>
<td>1,673.80</td>
<td>1,237.06</td>
</tr>
<tr>
<td>Net Income to Common</td>
<td>1,012.40</td>
<td>101.34</td>
<td>449.75</td>
<td>78.71</td>
<td>221.88</td>
</tr>
<tr>
<td>Net Real Estate Property</td>
<td>23,499.82</td>
<td>24,718.61</td>
<td>21,335.09</td>
<td>20,277.32</td>
<td>15,853.66</td>
</tr>
<tr>
<td>Total Assets</td>
<td>28,865.18</td>
<td>29,023.85</td>
<td>24,962.92</td>
<td>23,083.96</td>
<td>19,549.11</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>13,185.28</td>
<td>13,664.88</td>
<td>11,403.47</td>
<td>11,292.59</td>
<td>9,331.50</td>
</tr>
<tr>
<td>Total Shareholders Equity</td>
<td>15,281.47</td>
<td>15,175.89</td>
<td>13,473.05</td>
<td>11,756.33</td>
<td>10,520.52</td>
</tr>
<tr>
<td>Total Liabilities and</td>
<td>28,865.18</td>
<td>29,023.85</td>
<td>24,962.92</td>
<td>23,083.96</td>
<td>19,549.11</td>
</tr>
<tr>
<td>Shareholders Equity</td>
<td>189.46</td>
<td>354.78</td>
<td>329.79</td>
<td>289.56</td>
<td>250.37</td>
</tr>
<tr>
<td>Cash From Operations</td>
<td>1,626.69</td>
<td>1,373.47</td>
<td>1,138.87</td>
<td>988.50</td>
<td>818.13</td>
</tr>
<tr>
<td>Cash From Investing</td>
<td>-309.50</td>
<td>-3,484.16</td>
<td>-2,129.21</td>
<td>-3,531.59</td>
<td>-3,592.98</td>
</tr>
<tr>
<td>Cash From Financing</td>
<td>-1,260.72</td>
<td>1,967.87</td>
<td>1,302.48</td>
<td>1,968.11</td>
<td>3,645.13</td>
</tr>
<tr>
<td>Funds From Operations</td>
<td>1,582.94</td>
<td>1,409.94</td>
<td>1,174.68</td>
<td>926.88</td>
<td>697.56</td>
</tr>
<tr>
<td>FFO Per Share</td>
<td>4.42</td>
<td>4.03</td>
<td>3.92</td>
<td>3.32</td>
<td>3.09</td>
</tr>
<tr>
<td>FFO Per Share - Fully Diluted</td>
<td>4.39</td>
<td>4.03</td>
<td>3.92</td>
<td>3.32</td>
<td>3.09</td>
</tr>
<tr>
<td>FFO Basic Shares for Funds</td>
<td>358.27</td>
<td>348.24</td>
<td>308.27</td>
<td>276.93</td>
<td>224.34</td>
</tr>
</tbody>
</table>
| Source: Bloomberg, July 10th, 2017

The financial performance above reveals that the company show a rising trend from 2012 to 2019 (expected) in terms of Revenue, EBITDA, Net Income, ROA, ROE. However, the growth rate slows down in recent years.

Another noticeable line item is Rental Income, which makes up majority proportion of Total Revenue. Take 2016 for example. The Rental Income is 4,153 millions, which makes up 97.01% of the Total Revenue (4,281 millions).

4.1.5 Comparables Analysis

The other way to access a company is to compare it with peer companies that specialize in the
same industry. Table 4.6-4.8 compare the several leading health care REITs companies in terms of Equity, Credit Ratings and Credit Ratios.

**Table 4.6: Equity Comparables (Top 6 Health Care REITs in US)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WELLTOWER INC</td>
<td>26.7 (B)</td>
<td>39.3 (B)</td>
<td>18.6</td>
<td>19.1</td>
<td>18.0</td>
<td>40.8</td>
<td>33.2</td>
<td>36.9</td>
<td>20.4</td>
</tr>
<tr>
<td>VENTAS INC</td>
<td>24.0 (B)</td>
<td>36.0 (B)</td>
<td>19.3</td>
<td>18.3</td>
<td>17.7</td>
<td>38.9</td>
<td>26.7</td>
<td>31.9</td>
<td>36.3</td>
</tr>
<tr>
<td>HCP INC</td>
<td>14.6 (B)</td>
<td>22.3 (B)</td>
<td>14.8</td>
<td>18.8</td>
<td>16.6</td>
<td>26.6</td>
<td>26.6</td>
<td>41.0</td>
<td>156.7</td>
</tr>
<tr>
<td>OMEGA HEALTHCARE INVESTORS</td>
<td>6.4 (B)</td>
<td>11.0 (B)</td>
<td>13.3</td>
<td>12.5</td>
<td>11.8</td>
<td>18.3</td>
<td>16.6</td>
<td>15.3</td>
<td>46.6</td>
</tr>
<tr>
<td>HEALTHCARE TRUST OF</td>
<td>5.7 (B)</td>
<td>7.6 (B)</td>
<td>26.4</td>
<td>20.8</td>
<td>17.8</td>
<td>96.4</td>
<td>90.5</td>
<td>71.8</td>
<td>30.8</td>
</tr>
<tr>
<td>AMERICAN SENIOR HOUSING PROP TRUST</td>
<td>4.7 (B)</td>
<td>8.3 (B)</td>
<td>13.9</td>
<td>13.7</td>
<td>13.6</td>
<td>30.8</td>
<td>30.7</td>
<td>29.8</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Source: Bloomberg, July 10th, 2017

**Table 4.7: Credit Ratings Comparison**

<table>
<thead>
<tr>
<th></th>
<th>HCN</th>
<th>VTR</th>
<th>HCP</th>
<th>SNH</th>
<th>HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitch Rating</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB</td>
</tr>
<tr>
<td>Moody's Rating</td>
<td>Baa1</td>
<td>(P)Baa2</td>
<td>Baa2</td>
<td>Baa3</td>
<td>Baa2</td>
</tr>
<tr>
<td>S&amp;P Rating</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB</td>
</tr>
</tbody>
</table>

Source: Bloomberg, July 10th, 2017

**Table 4.8: Credit Ratios Comparison**

<table>
<thead>
<tr>
<th></th>
<th>HCN</th>
<th>VTR</th>
<th>HCP</th>
<th>SNH</th>
<th>HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secured Debt/EBITDA</td>
<td>0.0</td>
<td>0.1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured Debt/EBITDA</td>
<td>4.4</td>
<td>5.6</td>
<td>5.1</td>
<td>4.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Subordinated Debt/EBITDA</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Debt/EBITDA</td>
<td>6.1</td>
<td>6.5</td>
<td>5.2</td>
<td>6.4</td>
<td>5.5</td>
</tr>
<tr>
<td>Net Debt/EBITDA</td>
<td>5.2</td>
<td>6.3</td>
<td>4.9</td>
<td>5.8</td>
<td>5.4</td>
</tr>
<tr>
<td>EBITDA / Total Int Exp</td>
<td>4.1</td>
<td>4.4</td>
<td>3.5</td>
<td>3.4</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Source: Bloomberg, July 10th, 2017

The market of health care remains fragmented since the leading REITs - Welltower Inc. (NYSE:HCN) only captured a fraction of their potential market so far. The combination of rising demand for health care facilities and high potential for further consolidation provides a great opportunity for REITs to keep their FFO growing at an above average rates. Moreover, the stock price of HCN REITs is relatively high with its P/E ratio above the average level. Moreover, the credit ratings of the top health care REITs are very similar, which are all around BBB level.
4.2 Comparison of Product Structure of REITs in China

In the past 15 years, the exploration of REITs in China has never ceased, even though its legal & taxation environment and capital market are far from mature for REITs product.

Table 4.9: Comparison of Product Structure of REITs in China

<table>
<thead>
<tr>
<th>Time</th>
<th>Product Name</th>
<th>Issuer</th>
<th>Product Structure</th>
<th>Insurance Place and Distribution Place</th>
<th>Duration</th>
<th>Investment Threshold</th>
<th>Expected Rate of Return</th>
<th>Underlying Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 2003</td>
<td>Auchan Tianjing No. 1 Store Capital Trust Scheme</td>
<td>Beijing International Trust and Investment and Tianjin Longdi Licheuan Real Estate</td>
<td>Trust</td>
<td>Mainland, non-listed</td>
<td>3 years</td>
<td>200,000 yuan</td>
<td>6.0%</td>
<td>The property ownership of the first shop of Auchan in Tianjin</td>
</tr>
<tr>
<td>Dec 2005</td>
<td>Yuexiu Real Estate Investment Trust</td>
<td>Yue Xia Enterprises</td>
<td>REIT</td>
<td>Hong Kong, Hkex</td>
<td>Unlimited duration</td>
<td>None</td>
<td>6.3%-6.7%</td>
<td>Five commercial properties in Guangzhou</td>
</tr>
<tr>
<td>Dec 2006</td>
<td>CapitaLand China Retail Real Estate Trust</td>
<td>CapitaLand China</td>
<td>REIT</td>
<td>Singapore SGX</td>
<td>Unlimited duration</td>
<td>None</td>
<td>5.4%-6.5%</td>
<td>Seven shopping centers including Wangjing Jianmao Mall</td>
</tr>
<tr>
<td>Apr 2011</td>
<td>Cheung Kong Holdings Hui Xian Real Estate Investment Trust</td>
<td>Cheung Kong Holdings</td>
<td>REIT</td>
<td>Hong Kong, Hkex</td>
<td>Unlimited duration</td>
<td>None</td>
<td>4.4%-4.6%</td>
<td>The land use right of Beijing Oriental Plaza</td>
</tr>
<tr>
<td>Aug 2012</td>
<td>Tianjin Affordable Housing Interbank REIT</td>
<td>Tianjin Real Estate Trust Group</td>
<td>Mortgage REIT</td>
<td>Mainland, non-listed</td>
<td>Unlimited duration</td>
<td>N/A</td>
<td>N/A</td>
<td>40,000 units of affordable houses held and managed by Tianjin Real Estate Trust Group</td>
</tr>
<tr>
<td>Jul 2013</td>
<td>New Century REIT</td>
<td>New Century Group and Carlyle Group</td>
<td>REIT</td>
<td>Hong Kong, Hkex</td>
<td>Unlimited duration</td>
<td>None</td>
<td>6.5%-7.8%</td>
<td>Four five-star hotels and a four-star hotel</td>
</tr>
<tr>
<td>Dec 2013</td>
<td>Spring REIT</td>
<td>Spring Asset Management</td>
<td>REIT</td>
<td>Hong Kong, Hkex</td>
<td>Unlimited duration</td>
<td>None</td>
<td>4.94%-5.23%</td>
<td>Two grade A office buildings of China Central Place in Beijing's CBD</td>
</tr>
<tr>
<td>Apr 2014</td>
<td>CITIC Sailing Special Asset Management Plan</td>
<td>CITIC Securities</td>
<td>Quasi-REIT</td>
<td>Mainland, Shenzhen Stock Exchange</td>
<td>3 years to 5 years</td>
<td>1 million yuan</td>
<td>Fixed return for priority, expected rate of return of 7%</td>
<td>Two office buildings, i.e. Beijing CITIC Securities Building and Shenzhen CITIC</td>
</tr>
<tr>
<td>Oct 2014</td>
<td>CITIC Suning Yunchuang Private Investment Fund</td>
<td>CITIC Securities and Suning Appliance</td>
<td>Quasi-REIT</td>
<td>Mainland, Shenzhen Stock Exchange</td>
<td>Class A: 18 years; Class B: 3+1 years</td>
<td>1 million yuan</td>
<td>Class A: 7.0%-8.5%; Class B: 8.0%-9.5%</td>
<td>21 stories of Suning</td>
</tr>
<tr>
<td>Jun 2015</td>
<td>Penghua Qianhai Vanke REITs Closed-end Hybrid Securities Investment Fund</td>
<td>Vanke Fund and Penghua Fund</td>
<td>Quasi-REIT</td>
<td>Mainland, Shenzhen Stock Exchange</td>
<td>10 years</td>
<td>100,000 yuan</td>
<td>8.0%</td>
<td>The rental income right of Vanke Qianhai Enterprise Dream Park office building</td>
</tr>
</tbody>
</table>

Source: Compiled by Author and INSITE Corporate Research Center based on publicly available data
4.3 Comparison of REITs between China and US

As shown in Table 4.9 above, we named all the REITs issued in the mainland of China with “Quasi-REIT” because they differentiate from “genuine” REITs in several aspects:

Table 4.10: Typical Matured REITs vs. China’s REITs

<table>
<thead>
<tr>
<th></th>
<th>Typical Matured REITs</th>
<th>China’s REITs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Structure</strong></td>
<td>Corporate / Trust</td>
<td>Trust</td>
</tr>
<tr>
<td><strong>Taxation Level</strong></td>
<td>Benefiting from the elimination of corporate taxes if distribute at least 90% of taxable income</td>
<td>Need to pay relative high taxes, such as corporate tax and land value increment tax in transactions</td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>Need to follow detailed law and regulation. Majority of revenue comes from the lease received by lessors, disposal of assets, and other qualified investment.</td>
<td>No specific law or regulation to follow at the moment. Majority of revenue comes from the operation of properties and the disposal of assets.</td>
</tr>
<tr>
<td><strong>Dividends</strong></td>
<td>Distribute at least 90% to the investors. Long-term investment.</td>
<td>Offering fixed interest return or Paying dividend in terms of tranches</td>
</tr>
<tr>
<td><strong>Fund Raising Method</strong></td>
<td>Majority of REITs are public listed. Having a minimum of 100 shareholders.</td>
<td>Usually has higher investment threshold and less shareholders</td>
</tr>
</tbody>
</table>

Generally speaking, the current quasi-REITs products issued in China only fulfil some of the standard requirements of the general definition of REITs and there is not a REIT in mainland China in the strict sense of the term.
Chapter 5. Strategy and Structure of Senior Housing REITs in China

This chapter is talking about some strategies in REITs setting. The basis of the review is the US context, but some observations about implications for senior housing REITs in China will also be offered. One of the key arguments is that different REITs’ strategies serve different objectives, and there is no optimal structure that perfectly matches every single REIT. Understanding the operating philosophy and investment disciplines of each type of REIT is as important to the discussion whether or not to proceed with a particular transaction as the economic and tax considerations.

5.1 Strategy of Senior Housing REITs

This section provides a brief introduction of the main types of REITs and how it may influence the performance of senior housing investment.

5.1.1 Equity REITs vs. Mortgage REITs

There are two primary types of REITs: Equity REITs and Mortgage REITs.

<table>
<thead>
<tr>
<th>Table 5.1: Comparison of Equity REITs and Mortgage REITs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Opportunity</strong></td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td><strong>Investment Type</strong></td>
</tr>
<tr>
<td><strong>Revenues</strong></td>
</tr>
<tr>
<td><strong>Payment to Investors</strong></td>
</tr>
</tbody>
</table>

Source: Investopeia.com

In current US capital market, over 90 percent of the listed REIT marketplace is represented by
Equity REITs. The growth of the listed Equity REIT market has moved REITs into the investment mainstream.

As compared with Mortgage REITs, Equity REITs tend to perform better when interest rates are low, and property prices are rising. The current interest rate of China’s bank loan is around 4.5% [24], which is relatively low. On the other hand, the price of senior housing properties is expected to rise with the huge potential demand in the near future. Generally speaking, Equity REITs in senior housing industry might perform better and become more attractive to investors. On the other hand, in a concurrent thesis, Zou (2017) points out that, so far, securitization of affordable housing in mainland China has successfully occurred only through debt investment vehicles, more akin to mortgage REITs (or even more like CMBS) than equity REITs. [25] However, this is due to lack of sufficient legal and regulatory infrastructure in the current Chinese stock markets to support equity REITs. This gap may soon be filled.

5.1.2 Internal Management vs. External Management

The company must decide whether to be internally or externally managed when forming a REIT. Historically, the majority of REITs were externally managed, similar to a mutual fund structure, due to legislative restrictions against active management. It did not change until 1986 when the new Tax Reform Act allowed for active, internal management, which turned out that REITs look and function like any other company with employees, a management team, and a board of directors. Nowadays, almost all public REITs are internally managed. The debate over the benefits of internal versus external management is lengthy, but the key arguments relate to potential conflicts of

interest and the compensation level of the external manager advising the REIT.

Conventionally, an externally managed structure carries the theoretical imperative to grow the company for the sake of size, rather than EPS. To mitigate this concern, a number of the external advisory agreements today are structured to take this defect into consideration. First, in most management agreements, base fees are calculated on equity, rather than total assets. This is regarded as an efficient way to eliminate their intension to only grow the portfolio size rather than profits. Second, most external managers are required to maintain a significant equity investment in the advised entity, which aligns shareholders’ interest with that of management.

On the other hand, we must also recognize the potential benefits of an external management agreement, namely the platform, experience, and relationships that an external manager often brings to the table. A small REIT may benefit by “outsourcing” management to a larger and more established organization that may provide a broader array of services and relationships.

As mentioned above, Senior housing development is management-intensive and currently there are not many experienced talents within the management team in China. It would be wise to hire or cooperate with some experienced professionals from other companies, such as foreign-owned senior housing operation companies. Therefore, external management could turn out to be a more appropriate strategy for senior housing development in China. Alternatively, the type of joint venture between a senior housing REIT providing the real estate and a specialized senior housing service management company providing the operating management, such as described earlier in Section 4.1.3, could be the most effective structure.

5.1.3 Open End vs. Closed End

REITs can be open-ended or closed-ended, which affects the way your shares are priced. Open-
ended REITs do not have a fixed number of shares. When you invest money in an open-end REIT, new shares are created and your money is added to the investment pool. When you sell shares, your shares are dissolved and the money in the investment pool shrinks by the value of the shares you sold. The share price for this type of investment is based on the REIT's NAV.

Unlike an open-ended REIT, the number of shares in a closed-end REIT are fixed. Closed-end REIT companies raise money by selling shares through an initial public offering (IPO), much like corporations raise money selling stock to the public. Money raised from the IPO is used to invest in various real estate projects. Just like a stock, the share prices for this type of REIT are based on what investors are willing to pay for them at any given time and therefore, the share price can change throughout the trading day.

Generally, closed-end funds involve much less vertical integration and operating management, ending up being much more passive. Again, senior housing industry, similar to hospitality industry, requires intensive and professional operations. Therefore, open-end funds that are actively managed might serve better for senior housing investment.

### 5.1.4 Traded REITs vs. Non-traded REITs

Investors often take more risk to seek products offering more attractive yields during extended period of low interest rates. One such product is the publicly registered non-exchange traded REIT or "Non-traded REIT". While non-traded REITs and exchange-traded REITs share many features in common, they differ in several key respects. Most significantly, as the name implies, shares of non-traded REITs do not trade on a national securities exchange. For this reason, non-traded REITs are generally illiquid and the term period are often more than eight years. Early redemption is often very limited, and the fees associated with the sale of these products can be high that the total return

58
is eroded. Furthermore, the periodic distributions that help make these products so appealing can, in some cases, be heavily subsidized by borrowed funds and include a return of investor principal. This is in contrast to the dividends investors receive from large corporations that trade on national exchanges, which are typically derived solely from earnings.

Table 5.2: Comparison of Traded REITs and Non-traded REITs

<table>
<thead>
<tr>
<th>Listing Status</th>
<th>Non-TRaded REITs</th>
<th>Exchange-Traded REITs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares do not list on a national securities exchange.</td>
<td>Shares trade on a national securities exchange.</td>
<td></td>
</tr>
<tr>
<td>Secondary Market</td>
<td>Very limited. While a portion of total shares outstanding may be redeemable each year, subject to limitations, redemption offers may be priced below the purchase price or current price.</td>
<td>Exchange traded. Generally easy for investors to buy and sell.</td>
</tr>
<tr>
<td>Front-End Fees</td>
<td>Front-end fees that can be as much as 15% of the per share price. Those fees include selling compensation and expenses, which cannot exceed 10%, and additional offering and organizational costs.</td>
<td>Front-end underwriting fees in the form of a discount may be 7% or more of the offering proceeds. Investors who buy shares in the open market pay a brokerage commission.</td>
</tr>
<tr>
<td>Anticipated Source of Return</td>
<td>Investors typically seek income from distributions over a period of years. Upon liquidation, return of capital may be more or less than the original investment depending on the value of assets.</td>
<td>Investors typically seek capital appreciation based on prices at which REITs' shares trade on an exchange. REITs also may pay distributions to shareholders.</td>
</tr>
</tbody>
</table>

Source: FINRA

When it comes to investing in non-traded REITs, selling points such as the opportunity for capital appreciation, diversification and the allure of a robust distribution can be enticing. However, investors should balance these selling points against the numerous complexities and risks these investments carry:

- Distributions are not guaranteed and may exceed operating cash flow. Deciding whether to pay distributions and the amount of any distribution is within discretion of a REIT’s Board of Directors in the exercise of its fiduciary duties.
- Distributions and REIT status carry tax consequences.
- Lack of a public trading market creates illiquidity and valuation complexities.
- Early redemption is often restrictive and may be expensive.
5.2 Structure of Senior Housing REITs

The capability of accessing to a variety of capital sources is critical for real estate company, especially for senior housing REITs companies since they are competing a capital-intensive industry. However, the level of debt that REITs maintain has declined over the years and now generally range from 30% to 50%. At today’s valuation, REITs trade at a debt-to-total market capitalization of roughly 41.1%.\(^{[26]}\) Some other REITs pursue investments in off-balance-sheet joint ventures where higher leverage can be exercised. Generally, REITs have restrictions on the leverage. Standard REIT debt covenants include a maximum of 60% leverage, no more than 40% of total assets comprised of secured debt, a minimum of 1.5x fixed charge coverage, and unencumbered assets of at least 150% of unsecured debt. As a result, REITs, in general, maintain relatively conservative capital structures.

5.2.1 The Main Components of Senior Housing REITs’ Capital Structure

The main components of a REIT’s capital structure are debt (unsecured debt, secured debt, property-level debt, joint venture debt and credit facilities), common stock, operating units, and preferred stock.\(^{[27]}\) A typical capital structure of a REIT is shown in Figure 5.1.

---

\(^{[26]}\) Debt Ratio of All REITs is 41.1%; Debt Ratio of Equity REITs is 31.5%; Data from National Association of Real Estate Investment Trusts.

\(^{[27]}\) U.S. REITs, Barclays Equity Research, July 17th, 2012
Figure 5.1: REIT Sample Capital Structure

- **Secured Debt**

REITs utilize property-specific mortgage debt or debt secured by a pool of properties, which may reach a maximum loan-to-value (LTV) level of 80%, but more commonly between 40% and 70%. Property-specific debt financing is more common among net lease companies as the long-term nature of the leases makes them more easily match financed via property-specific mortgages. The amount of secured debt that a REIT may issue will often be influenced by its credit rating, due to certain requirements dictating the acceptable levels of secured debt that a company may maintain in order to qualify for a specific credit rating. Moreover, the cost of debt may influence the percentage of secured debt.

- **Unsecured Debt/Convertible Debt**

REITs may also issue unsecured debt, which is not backed by any property interest or any other specific collateral, but is senior to all equity and other subordinate debt. The maturities of debts usually range from five to ten years although a few REITs may issue 30-year papers.

- **Credit Facility**

Many REITs initially fund property investment via short-term credit facilities, which typically
have maturities of one to two years, with extension options for an additional one to three years. The interest on these facilities is usually floating-rate that is based on a spread over a short-term index rate, such as 30-day LIBOR. When a company accumulates a meaningful balance on its credit facilities, it will usually roll that short-term debt into something more permanent, such as long-term, fixed-rate debt or equity.

- **Preferred Stock/Convertible Preferred Stock**
  Many REITs issue preferred stock. However, it is usually a very small portion of the capital structure.

- **Operating Partnership Units**
  REITs formed via an UPREIT or DownREIT structure may issue Operating Partnership (OP) units in exchange for properties. OP units are exchangeable into common stock on a one-for-one basis, receive dividends, and have voting rights just like common stock. OP units provide a currency to the REIT to make acquisitions without the seller incurring an immediate tax liability. The seller may defer the tax liability until the OP units are converted to common stock.

- **Common Stock**
  Common stock is the principal component of a REIT’s capital structure. Due to the fact that REITs must pay out 90% of taxable income as dividends, a REIT generally periodically taps the equity markets to grow. As a result, REIT follow-on equity issuances are very common.

**5.2.2 Some Concerns on Senior Housing Leverage**

Like all other REITs, Senior Housing REITs are required to pay out 90% of their taxable income in dividends. Because of this requirement, REITs need to issue equity or debt in order to fund their acquisition, project development and operation expense. This causes many senior housing REITs
to accumulate large debt balances, especially in periods of expansion. Large debt balances increase the risk a company will be unable to re-finance that debt and, in the case of variable rate debt, the risk that fluctuations in interest rates will increase a company's debt service payments.

Moreover, if senior housing REITs are unable to refinance maturing debt due to the credit crunch, they will have to repay the debt in other ways. One option is to issue equity. However, if equity is issued at low prices it would dilute the ownership interests of current shareholders. Another option would be to sell assets. One critical character of senior housing industry is its long-term development and operation period. Therefore, if assets are sold before they can reach their full potential, the REIT will fail to meet its target return on those assets decreasing the total return available for distribution to shareholders. A lack of credit also creates a lack of appropriate buyers, which makes finding a buyer for senior housing properties more difficult.
Chapter 6. Conclusions and Further Research

As China’s real estate industry continues to mature, it is inevitable that real estate will become more specialized with an extended chain of value creation. The Chinese real estate companies are eagerly learning about and exploring diversified financial vehicles in senior housing development to meet the needs of senior care housing in the new era. As was demonstrated in the previous chapters, REIT is proved to be a sensible and appropriate financial vehicle for the senior housing industry. However, there is still a long way to go.

6.1 Summary and Conclusions

- **The Development of Senior Housing in China**

In summary, China’s senior housing market is promising but is facing challenges, such as unclear policies, financing vehicle restraints and unprofessional management. China’s senior housing developers could achieve mastery through a comprehensive study of the advanced senior housing industry in the US and customize it to the domestic features of the senior housing industry in China. Some critical explorations could be on the following points:

1) Clarity of government policies and regulations.

2) Exploration of creative profit models of senior housing development.

3) Cooperation with other industry participants, especially with operation professionals from advanced markets.

4) Investigation into various financing vehicles for senior housing development.

- **The Development of REITs in China**

The adoption of REITs requires thorough assessment and sufficient preparation of the capital system. The issues with the implementation of REITs in China include but are not limited to
policies, regulations, taxation, corporate governance, a valuation system, and credit rating. Given the unique features of China’s capital and asset markets, China needs to adopt a structure that maximizes the benefits for government, developers (with operators), and investors. Only in this way will the use of REITs for financing succeed. A simplistic structure chart of China’s REITs market is shown in Figure 6.1:

The structure a REIT elects may have a sizable impact on the REIT’s operations and profitability, and the detailed structure of a REIT is dependent on the characteristics of a specific real estate project.

With the promotions and implements of REITs products in China, all classes of investors, from individual investors to government, real estate developers, financial institutions, and others, will benefit from this process.

- The Combination of Senior Housing and REITs in China

In summary, the senior housing industry is evolving from being an emerging component of
property investment to being one that is increasingly accepted by both institutional and individual investors. The leap in China’s future senior housing development requires a huge amount of capital, and REITs are no doubt an ideal way to finance the senior housing development, which is characterized by being long-term, and capital- and management-intensive.

The structure of senior housing REITs should match the characteristics of senior housing development and operation as well as the detailed policies and regulations of senior housing in China.

6.2 Further Research

As discussed above, China’s senior housing development is still in its infancy and there is a long way to go. Below are some promising areas in senior housing financing that can be further analyzed:

1. Investigation of more preferential and practical laws and regulations that adapt to China’s senior housing capital market.

2. Discussion about senior housing REITs management, especially in the corporate structure, property specifics, and risk management.

3. Exploration of some new cooperative models in cross-border senior housing development and investment.
Bibliography


Deloitte China Research and Insight Centre, “China’s Senior Housing - Now and the Future”, 2014.


Huang, Yuxuan. “An Investigation into the Use of REITs to Finance Affordable Housing in Mainland China”, *Massachusetts Institute of Technology*, 2010.


National Health and Family Planning Commission of China.


Policies of Encouraging the Establishment of Private-owned Medical Institutions, 2015.


REITs in China: Opportunities and Challenges, RICS, May 2016.

Hsu, Sara. “China’s Real Estate Sector is Overstocked”, Forbes, Jul 6, 2016.

Senior Care in China: Opportunities and Challenges for Foreign Investors, LaSalle Investment Management.


The 50 largest U.S. seniors housing real estate owners and operators, American Senior Housing Association, 2014.

The Guiding Opinion on Utilization of Land Use Right for Senior Care Facility, April 2014.

U.S. REITs, Barclays Equity Research, July 17th, 2012.

