SECURITIZING SPECTACLE: PROPERTY, REAL ESTATE INVESTMENT TRUSTS, AND THE FINANCIALIZATION OF RETAIL SPACE IN SINGAPORE

by

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Abstract

In this thesis I explore several intersections of the work on financialization, urbanization, the real estate financial nexus, and spectacle urbanism. Taking the recently formed Singapore real estate investment trust (REIT) market as its case, this thesis contributes to efforts to build out our understanding of the consequences of urban financialization: among them, argued here, being the production of 'spectacle urbanism' as an everyday experience in retail spaces. Entangled within state initiatives to develop Singapore as a leading financial center, the REIT market was initiated in 2002 as part of a wider effort to deepen financial markets in the city-state. Its existence has become a current political issue in parliament, manifestly centered upon the politics over claims to property and its seeming capture by financial actors as a "purely financial asset". And it is here that the thesis begins in Chapter 1 to outline the contemporary relevance of this study. In Chapter 2 I argue that *urbanizing* financialization—that is to concern ourselves with financialization and urbanization as interdependent processes—is necessary for understanding the spatial dynamics of financialization. The strategic starting point is to focus upon the material and spatial processes that enable property to be treated as a "pure financial asset". In Chapter 3, drawing upon interviews conducted in the Singaporean REIT market, I demonstrate the material and spatial process that REIT managers concern themselves with to realize property as a 'pure financial asset', guided by the notion of producing liquidity or 'unlocking value'. Chapter 4 considers the effects of these processes and argues that a constructive dialogue is to be had between the work on spectacle urbanism and financialization. I argue that not only does financialization accelerate spectacle urbanism, but that this in turn largely sustains urban financialization in a recursive process. Finally, the thesis concludes with a reflection upon the implications of the empirical chapters and the 'politics' of this research—highlighting the

urgency of future research on the role of the state in creating these infrastructures of financialization.

Preface

This dissertation is original, unpublished, independent work by the author, Joseph A. Daniels.

This thesis is based in part on interviews conducted in Singapore in the summer of 2014 (approx. June-August). This research was approved by the University of British Columbia Office of Research Services Behavioral Research Ethics Board—Observed as Minimal Risk. The certificate of approval is UBC BREB Number H14-00826.

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List of Abbreviations

AEI Asset Enhancement Initiative
CEO Chief Executive Officer

CMA CapitaMall Asia (CapitaLand)

CMT Capitamall Trust

DBS Bank (state-linked)
FCOT Frasers Commercial Trust
FCT Frasers Centrepoint Trust

GFA Gross Floor Area

HDB Housing Development Board

IPO Initial Public Offering
JTC Jurong Town Corporation
KPI Key Performance Indicator

MAS Monetary Authority of Singapore

MBS Mortgage-Backed Security
MCT Mapletree Commercial Trust

MP Member of Parliament
MRT Mass Rapid Transit

MTI Ministry of Trade and Industry

NAV Net Asset Value NLA Net Lettable Area

NUS National University of Singapore

PAP People's Action Party

PMCC Property Market Consultation Committee

REDAS Real Estate Developers Association of Singapore

REIT Real Estate Investment Trust

SGD Singapore Dollar SGREIT Starhill Global REIT

SGX-ST Singapore Stock Exchange

SIAS Securities Investors Association (Singapore)
S-REIT Singapore Real Estate Investment Trust

UNC The University of North Carolina at Chapel Hill

URA Urban Redevelopment Authority

Notes

- 1. Use of the term *property* in this thesis refers to 'land and its appurtenances' which means land and any building that sits on it.
- 2. In Chapters 3 and 4 the terms REIT and S-REIT are interchangeable.

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the mail often provided a smile after a hard day. And while my grandfather passed on shortly before this thesis was complete, I am forever grateful for his lifelong support and for sharing the occasional cartoon clipped from the Sunday paper to remind me what was really important.

For my grandfather, Robert L. Carter

Chapter 1: Stumbling into REITs: opening a 'black box' of the real estate/financial nexus

1.1 Introduction: the REIT encounter

I had gone to meet a Singaporean friend whom I had not seen for a couple of years for lunch. Rising up the escalator, leaving the immediate comfort of the air-conditioned train station behind, I came out in the sun-beaten plaza of Raffles Place, the heart of the Singapore central business district. Through the square's raised green lawn a path is carved as if intentionally designed to encourage you to not stay, channeling you and thousands of others passing through into the modern office buildings—the place of work for most—that loomed over the plaza. The towers, mostly filled with the offices of the global financial elite, cast a literal shadow over the station, and previously at the center of colonial Singapore. It was a vivid reminder of the city-state's current economic orientation half a century after independence.

Only a few steps along one of the paths – so preoccupied by my phone, I nearly stumbled right into it—was a display booth covered in images of glitzy buildings in the 'global' and 'global-aspiring' cities of Edinburgh, Glasgow, Kobe, Kuala Lumpur, London, Singapore, and Sydney. It could easily have been mistaken for the promotion of a slick new condo or the direct marketing campaign for some new luxury lifestyle brand trying to attract the many bankers and consultants passing between the office buildings. Once I looked more closely it was apparent, and in large, bold text, that this *was* a real estate offering, but of a particular kind. It was the initial public offering (IPO) booth for shares in a *real estate investment trust* (REIT), to be listed on the Singapore stock exchange. Coincidentally, it was the very thing I came to Singapore to study (see Figure 1.1)! The booth was set up to attract bankers and consultants but not as a potential place for them to live, but instead to put their institutions' money as a form of investment. I never thought that I would stumble into this alchemic hybrid of real estate and

finance in a public square quite so literally, and certainly not accidentally. Unfortunately I was late for lunch, but I now had a good story to tell, and not only for my friend but for this thesis.



Figure 1.1: Frasers Hospitality Trust IPO boothRaffles Place, Singapore. Photo Credit: Author, June 2014

Most people have never even heard of a REIT, let alone stumbled into an IPO booth of one. Even for some who work in the area of real estate and finance and who casually refer to REITs, these remain 'black boxes' within the "real estate/financial complex" (Aalbers 2012). In part this ignorance is because the U.S. housing and subprime crisis, linked to the toxic growth of the mortgage-backed securities (MBS) markets (and its derivatives)¹, has overshadowed other forms of property securitization which a REIT represents (see Aalbers 2008; Langley 2008a; IJURR 2009; Martin 2011; Pani and Holman 2014). Yet, REITs are significant. Globally, the

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¹ A mortgage backed security is a type of asset backed security that is secured by a mortgage or collection of mortgages. The mortgages are sold to groups or individuals who 'securitize' or package them together into a security investors can buy. However, these were never traded on the stock exchange like REITs.

real estate securities market, which consists of all of the publically listed real estate development and holding firms for which you can buy shares on the stock market, has a total market capitalization (value of stock) of US\$ 1.7 trillion across 456 listed firms; more than seventy five percent of which are REITs or REIT-like structures as of June of 2014 (Cohen and Steers, accessed 13 May 2015). Opening the REIT 'black box' begins at its most basic level with a definition. A real estate investment trust is a capital market, or financial, vehicle that pools together funds from individual or institutional investors (i.e. pension funds) who have an interest in investing in income producing real estate but do not want to make direct investments. Investors receive dividend payments (rental income) based on their ownership of shares in the entity. Just from 2003 to 2013 the global REIT market grew from US\$ 300 billion to over US\$1 trillion (Ernst and Young 2013). In the U.S., by May 2015 the market had grown nearly by five times as large compared to where it was at its low point during the financial crisis, growing from US\$ 176 billion to US\$ 846 billion (NAREIT, accessed 13 May 2015). There are no direct comparisons to REITs in the real estate securities market, with non-REIT 'real estate funds' taking up only 25 percent of the market. The only other common real estate related securities market is the MBS market but it does not hold physical properties. The total outstanding value of MBS in the U.S. and Europe at their height was over US\$ 13.7 trillion, though this has come down somewhat in the wake of the financial crisis² (Casu and Sarkisyan 2015). And while the MBS market still dwarfs the REIT market, it has been on a downward trajectory due to regulatory pressure. Valued at around US\$ 13.7 trillion at its height it has fallen current value of US\$ 11 trillion, with issuance of new MBS cut by more than half from US\$ 3.6 trillion to US\$1.6 trillion (Casu and Sarkisyan 2015:357-359). REITs have seen rapid growth. Some of the

² It is difficult to get 'global' data on Mortgage-backed securities to make a like for like comparison, but combining the US and European markets captures much of this market.

largest property rich firms (often retailers)—"Sears forms REIT to raise \$2.5 billion in cash amid losses"—use REITs as a means of securing their struggling cash-flows in a volatile economy (Callanan and Coleman-Lochner 2015), strengthening the links between real estate and financial markets. By selling its property to a REIT Sears is freed to use the new capital for to its own ends. Consequently, it is odd that REITs have not been paid greater attention by critical scholars. The only extended take on REITs in the critical literature by Gotham (2006:355), argues that REITs are critical in the globalization of U.S. real estate markets because they create "liquidity out of spatial fixity". By this, he means that REITs (alongside MBS) transform the spatially fixed, idiosyncratic nature of property into a form that mediates its particularities (i.e. location, size, floor plan, etc.). REITs turn property into a standardized, globally and easily transferable financial asset: the tradable share on the stock market. In such structures, property sheds its unique features such that investors from anywhere in the world can easily (understand and) invest in it, often based on new calculations or attributes such as 'yield'. These enable its comparability to other assets—what scholars term commensuration—and is the perhaps the greater intent of such financial actors to make property 'liquid' (Rutland 2010). As Forrest and Hirayama (2014:5) put it, "From speculative investors' viewpoints [...] buildings have been liquidized into securities and then melted into the flow of the mixture of variegated financial products. Investors no longer have interests in what they want to invest in—real estate or shares—but buy anything as long as they obtain high levels of short term yields". In other words property is made liquid despite its 'fixity' (immobility and unique features) through the calculative practices of such vehicles. (This analysis only constitutes three paragraphs and is overshadowed by an analysis of MBS!)

In Singapore, the growth of real estate investment trusts (known as S-REIT) has been remarkable, growing from non-existent before 2002 to more than S\$ 66.7 billion as of January 2015 (Singapore Exchange 2015). Today, the 34 listed S-REITs on the Singapore exchange cover 19 percent of all commercial properties in Singapore and 34 percent of retail properties (DBS Vickers 2014). Only in Australia do REITs control more of the commercial property market. More and more property owners in Singapore, often with encouragement from the state, are transferring or selling their properties into REITs. Property owners principally view these structures as a way to 'unlock value' or capital supposedly 'trapped' in property (see Figure 1.2).



Figure 1.2: 'Unlocking value'See upper left corner, Frasers Commercial Trust. Source: FCT 2013 Annual Report, pg. 1.
This view, combined with their relatively recent introduction, is why Singapore is such a

compelling case to ask important questions about the role of REITs in the 'real estate/financial nexus'; a nexus which has been brought into crisp focus following the financial crisis. Because REITs are the major form of property securitization in Singapore, their analysis offers an opportunity to step out from the shadows cast by seemingly more 'exotic' financial vehicles found elsewhere. With REIT market growth, property is increasingly coming under the direct control of financial managers. The effects of this shift in the norm of property management are particularly felt in those spaces Singaporeans experience on a daily basis—namely retail spaces. It is within and through these spaces that Singaporeans travel to work, to school, and merely to relax. In a country often referred to as the 'air-conditioned nation' in part because of the centrality of the mall to daily life (George 2000), changes in these spaces are not without consequence and can be understood as potentially transformational within the wider urban system of Singapore. As financial managers gain control new logics get applied to such spaces, such that the drive for return. This changes the behaviors of the business owners who are dependent upon such properties. These changed behaviors have a direct impact upon how Singaporeans experience such spaces. Empty corridors, quite common in privately owned malls, become filled with kiosks. Mom and pop shops disappear. Non-commercial activities become marginalized. These are just a few of the changes (further discussion in Chapter 4), which when taken collectively add up to profoundly different experiences of urban space. Particularly since it is often the most prominent and frequented places that have been placed under REIT management.

Furthermore, the seemingly obscure and benign role of REITs is increasingly being called into question as they continue to grow. As their signage and marketing materials go up all over Singapore, they are becoming more visible managers of space in the landscape for business

owners, shoppers, and economic planners alike. In part this reveals itself as a fight over the 'politics of property' (Blomley 2005), or a concern for the changing ways in which property is deployed (by certain actors) as an organizing structure of contemporary society, bringing about questions regarding for whom REITs are beneficial and to what end their control of property is leading. In Singapore, with real estate rental prices nearing record highs for businesses, this 'politics' has been made it into the halls of Parliament. The shift towards REITs as a norm of property management regimes in the city-state has evoked impassioned responses culminating in a highly public debate which broke out shortly before the start of my fieldwork in March of 2014. Several Members of Parliament voiced their objections to the growth of REIT property management and the larger narrative of the government relinquishing control over property³, to which it otherwise holds legal title. As one MP of the governing party (People's Action Party, PAP) put it:

"The government lost the ability to influence rental prices resulting in developers and investors (*including REITS*) making the money - this is passive income and not productive income benefiting the investors." (PAP MP Inderjit Singh, cited in Lee 6 March 2014, emphasis added)

The MP is relaying a concern over the tendency to treat property "strictly on financial grounds" that has arisen in the absence of direct control (like that which exists in the residential market) by the state for the extraction of exchange value or rents (passive/unproductive income) by implicitly questioning the discourse of 'unlocking value' that has been mobilized to rationalize REIT development (Christophers 2010:98). The MP is essentially questioning the ethics of property owners to sit passively by extracting income *unfairly*, in his mind, from individuals and

³ Over the same period that the REIT market was seeing growth, the government was also restructuring the Jurong Town Corporation (JTC), a government-linked firm which controlled and managed much of the industrial and business park space in Singapore. In this process it was releasing more properties, via long term leases, to the control of private operators including REITs. The view that the state had artificially kept prices down, created tensions with existing tenants, particularly small and medium sized firms, as the new operators sought to take advantage of these 'low' rentals by bringing them up to 'market' values.

⁴ REIT managers often obtain property leases of up to 99 years.

businesses that are contributing to society (and making productive income). The concern over the increasing power of financial actors, and their control of property, brings into stark relief the seemingly contradictory state political-economic projects regarding the promotion of the REIT industry as 'productive' within the economy and necessary to financial center development on one hand (Singapore Budget 2005) and the effort to prevent the treatment of property in a speculative (ostensibly 'unproductive') manner on the other.

Furthermore, for a state, such as Singapore, that has built its power and legitimacy upon the control of property—in what Halia (2000) calls a property-state—the promotion of REITs exposes the contradictions between the use of land as a site of privatized rent extraction and for the growth and stability of state power. It begins to undermine that very legitimacy that control has brought with it. In other words, in Singapore we are witnessing the tensions that are produced as property is increasingly treated as "a pure financial asset" (Harvey 1982, 1987; Haila 1988), or, in more contemporary language, the *financialization* of property (Christophers 2010; Aalbers and Christophers 2014; Guironnet et al. 2015). If financialization is characterized by the "the growing influence of capital markets, their intermediaries, and processes in contemporary economic and political life" then REITs are in many ways the flag bearers of this process, and in some cases precede MBS (Pike and Pollard 2010:30) (see Chapter 2 for review).

The treatment of property as a 'pure financial asset' is not just its transformation into a commodity, but rather the treatment property as a particular—'financial'—commodity. In so doing, I argue that the REIT (manager) performs the task of materializing urban space as a 'financial' commodity through the transformation of the built form to match the 'assumed'

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⁵ Property-states, Singapore and Hong Kong, are not rent-seeking economies as the term rent is usually used in discussing Asian capitalism. Instead they are characterized by the importance of real estate, as an immobile asset against the grain of capital mobility in this 'global era. Land is publicly owned (see Haila 2000). REITs certainly reveal one way in which the property-state is evolving when set against tendencies towards financialization.

desires of 'financial' actors for liquidity. Managers are not just giving a financial share that investors want, but a physical product too. The financial 'logics' implied here, then, are material (embodied in the built form) sets of socioeconomic processes, relations, and subjectivities emerging from the mutually constituted landscapes of contemporary financialized capitalism, the global financial system, and real estate (French et al. 2009; 2011; Leyshon and Thrift 2007; Pani and Holman 2014; Pike and Pollard 2010; Pryke 2006). This production, drawing particularly upon the work of Guy Debord (1994) (Gotham 2005, 2011; Woodworth 2015), accelerates the contemporary urban spectacle, transforming it into the 'object' of securitization. The spectacle, according to Debord, is the resultant outcome of the process of capital accumulation. He argues that capital reaches a historic moment in which it becomes an image. This 'image' is the proliferation of mass media, marketing, art, and architecture (etc.) which distract individuals from the commodification of nearly everything. The shopping mall is often an exemplar space of the spectacle (Jones and Sanyal 2015) because it is a 'world' of commodification that is plastered over by seductive images (corporate marketing, spectacular architectural design, etc.) which elicit the demand to consume. Or at least that is its design. Placed under REIT control and the retail spaces of Singapore (its shopping malls) are treated as spaces of merely cash-flow or money (the most 'pure' of financial assets). This is the apex of the spectacle; money (universal image) represents all commodities (Debord 1994[1967], thesis 49). The journey en-route to this entails rounds of ever more spectacular spectacles by the REIT manager, their subsequent commodification (Gotham 2005 on commodified spectacles), and further spectacle till all that is left is money. This creates a turbulent production of urban space between novelty and homogeneity. It is this tension held within spectacle-ization of urban retail space that will be further explored concerning the (REIT) trajectory of urban space in Singapore in later chapters

(esp. Chapter 4). Fundamentally, I implicate the S-REIT, despite its relative obscurity to most, directly in shaping and reshaping of the urban commercial landscape of Singapore. This is evident in two ways. First, as indicated REITs have quickly taken control of over 34 percent of commercial retail space in Singapore (DBS Vickers 2014). Further, banks suggest this figure is likely to grow as REITs continue to absorb much of the consolidation in retail space occurring in Singapore as a result of labor shortages and technology changes. DBS Vickers (2014:1, a Singapore securities firm) argues:

"We believe that retailers will prefer to operate in REIT-owned malls (c.34% of Singapore's total private retail shop space) as the malls tend to be highly accessible to public, actively-managed and most importantly, able to attract significant recurring footfall and retail sales."

This altered retail landscape potentially signals a spatial mismatch between the built form Singapore has and what may be 'best' for its economic priorities. For example the government has expressed policies that purport to help small and medium sized enterprises, yet these enterprises are often expressing concerns that their space options are being limited by the growth of REITs (Interview 7, REIT manager).

I began with the story of my bodily *encounter* with the S-REIT because it presents a moment of demystification within the space-time of financial markets as they draw in new assets for capitalization (Leyshon and Thrift 2007). Demystification in the sense that an analysis of the REIT structure offers an opportunity to connect high finance to the material world, rather than recreate the narrative of 'big' finance as a form of fictitious 'casino capitalism'. REITs are not *just* shares of financial vehicles that never 'touch' the ground so to speak in the fast moving flows of an intangible, instantaneous (somehow distant or ephemeral) financial system, but instead are 'real' in the sense that they structure specific physical features of the world that can be bumped into by people moving about their daily lives—and there, one was, right there, the

photographs of buildings in cities around the world, the stacks of IPO prospectuses, the written and spoken numbers of values and prices representing the economic conditions, in part, of far off places plastered on signs for passersby to see.

The IPO booth encounter emphasizes the 'materiality of the market' (MacKenzie 2009; Callon et al. 2007; Berndt and Boeckler 2011) at both the micro and macro scale. First, at the micro scale, there is the physicality of the IPO booth itself which makes the REIT a physical, corporeal, and technical object; much in the same way that a price on screen makes the stock market likewise (MacKenzie 2009). Second, at the macro scale, the IPO booth acts as a 'microplace' or node that—in photographic and numeric form—represents the REIT as an articulation of stretched relations between the places (properties) that constitute the portfolio of the REIT. The focus upon the *materiality* of the REIT and its effects in particular places, such as Singapore, provides the central analytical entry point for understanding how such a 'financial innovation' acts upon the "real estate/financial nexus" (Aalbers 2012). First, I consider the materiality of 'property as pure financial asset' by understanding how 'property', often overlooked in geography (Blomley 2005; Blomley and Sturgeon 2009; Christophers 2010), is materially (re)constructed along financial grounds within a REIT (Chapter 3). Second, I consider the effects of this material reconstruction of property, positing it in relation to spectacle urbanism in Singapore (Chapter 4). Furthermore, an emphasis on materiality can be read as a basing point for a dialogue between urban political economy and the social studies of finance, which has broadly emerged within financial geography under the auspices of cultural political economy (MacKenzie 2009; Christophers 2010; Hall 2011, 2013).

⁶ The major difference between the IPO both and the computer screen is that while both are involved in market formation the first is certainly of little actual importance today due to changes in technology (though it likely had greater importance in the past), while the second is of great importance. The purpose of the narrative here is merely illustrative.

This thesis is, is an attempt to go beyond the REIT *encounter*. That is to give it consideration and to not leave it undisturbed. It is an encounter that enables us to begin its unpacking from the 'black box' of its sociotechnical operation and normalization in mainstream real estate finance literature and practice. The recent global ascendancy of REITs, coinciding with the increasing investment allocations by major investors such as sovereign wealth funds to real estate, belies their potentially problematic geographies in the financial system and everyday life (from the geographic distribution of risk to the unknown/uneven impacts on urban space). This encounter furthers our understanding of the urban processes of financialization, often overlooked in the scalar jump from the individual household to the global financial system, which has only recently re-emerged as a site of analysis (from an earlier concern in the 1990s) in the literature (CJRES 2013; Regional Studies 2014; Urban Studies, forthcoming). The thesis purports to cut through the "fictitious distance" between the 'real' geographies of everyday life and financial markets in Singapore, and to take up the call for economic geographers to "demystify global finance and render transparent the concrete materiality of the relational economic geographies that make up our financial world" (Pani and Holman 2014:231; Wojcik 2012).

1.2 What is a REIT?: back to the future the REIT way in Singapore

It is worth repeating: A real estate investment trust is a capital market, or financial, vehicle that pools together funds from individual or institutional investors (i.e. pension funds) who have an interest in investing in income producing real estate but do not want to make direct investments. Though characterized by a complex legal structure, which will be discussed below, a REIT can in one sense be simply understood as a shareholding company that invests in a portfolio of real estate (Block and McDavid 1998; Gotham 2006; Ong 2010), from which it

extracts rents from tenants which are then distributed to the shareholders on a regular basis. Shareholders can also trade these shares in the secondary market on the stock exchange. Over the years, REITs have begun to invest in mortgages as well, leading to a need to differentiate between equity, mortgage, and hybrid REITs. A mortgage REIT originates or buys mortgages for direct investment. Investors then have access to this mortgage investment through the REITs listed share price or security. Furthermore, while REITs represent a distinct investment market, they can get entangled into the mortgage backed security market as these mortgages can be bundled and sold onto institutional investors to raise capital and enable them to acquire more assts. In the U.S., mortgage REITs accounted for approximately 9 percent of the market in 2005 (Manglani 2005), though in the post financial crisis period in which deals could be had purchasing distressed mortgages as deep discounts they have grown to roughly 14.3 percent of the U.S. REIT market (NAREIT, accessed 22 May 2015). However, for the purposes of this thesis I will be discussing *equity* REITs—those REITs that invest directly in physical properties. In part, this is because mortgage REITs still play a relatively small role globally. Moreover, they have yet to make much of an appearance in Singapore. Equity REITs invest in a range of property sectors including residential, office, retail, hospitality, healthcare, and more recently warehousing and data centers. In Singapore, because the residential market is dominated by public housing built by the Housing Development Board⁷, there is little in this segment, with most S-REITs holding office or retail space. Because the equity REIT directly holds and actively manages properties, understanding its organizational and institutional logics is vital if we are to discern their effect upon urban space in Singapore.

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⁷ The Housing Development Board is a statutory board of the Singaporean Government held by the Ministry of National Development and is the single largest supplier of housing in the city-state.

Real estate investment trusts first developed in the United States in 1960 by an act of Congress as a means for small retail investors to invest in commercial real estate. As a form of investment it saw minimal growth initially. It would not be until the passage of the Tax Reform Act of 1986, the Technical and Miscellaneous Revenue Act of 1988, and the REIT Modernization Act of 1999 which removed regulatory barriers that REITs took off (Gotham 2006; Ong 2010). Further, these regulations empowered REITs to make headway into new sectors and geographies of investment not previously authorized. The 'explosive' growth following the U.S. REIT regulatory changes in the late 1980s and early 1990s encouraged other jurisdictions to seek out their own forms of REIT legislation (Sing et al. 2005). Table 1.1 documents the expanding REIT world. As Engelen et al. (2010:57) suggest "financial innovation" should not be conceived in a rationalist frame; a functionalist answer to real world deviances from ideal financial markets, or as the work of 'heroic' theorists or intermediaries at a singular time and place, but instead as an emergent property of structural conditions, conjunctural situations, and heuristic devices and skills. So while not 'new' in conception, REITs as a form of financial innovation have emerged in the current post-crisis conjuncture with a renewed strength that demands critical attention. The table suggests a sort of 'back to the future' evolutionary dynamic, having started off life in the 1960s to little fanfare and regained prominence following the recent financial crises. Prior to my field work, business headlines were vaunting the growth of REITs and singling Singapore out as the exemplar market for its ability to deliver the highest yields (Mahrotri 2012). This represents quite the turnaround from their dismissal by regulators in the late 1980s. In addition the attention helps to explain the political questions addressed earlier.

Table 1.1: The REIT world

Countries with Listed	REITs (Year	REIT Legislation in	REITs Under
Adopted)		Progress	Consideration
United States*	Malaysia (2005)	Chile	China
(1960)	Israel (2006)	Costa Rica	India
Netherlands (1969)	Germany (2007)	Hungary	
Australia* (1971)	United Kingdom	Indonesia	
Canada (1994)	(2007)	Lithuania	
Ghana (1994)	Italy (2007)	Luxembourg	
Belgium (1995)	New Zealand	Philippines	
Brazil (1995)	(2007)	Puerto Rico	
Greece (1999)	Nigeria (2010)		
Turkey (1999)	Mexico (2011)		
Japan* (2000)	Thailand (2012)		
South Korea (2001)	Finland (2013)		
Singapore* (2002)	Ireland (2013)		
France (2003)	Pakistan (2013)		
Hong Kong (2003)	South Africa (2013		
Taiwan (2003)	Dubai (2014)		
Bulgaria (2005)	Spain (2014)		

^{*} Indicates largest four markets. As of June 30, 2012. Source: UBS and Cohen & Steers.

Gotham (2006) outlines three important features of REITs that are germane to this study. First, the REIT spreads investor risk over a portfolio of different and diverse properties and geographic areas through securitization. This is done through both the introduction of an IPO to raise capital in exchange for shares or units tradable on most major stock exchanges which give claim to the property's income, or through the use of debt products. Second, REITs pool different investments and distribute income as a dividend to shareholders. Investors are able to invest in real estate without the requisite time or money for direct ownership as they can hold the property in "bite-sized chunks" (SIAS, accessed 26 May 2015). And thirdly, REITs contribute to the "financial fluidity of property by disembedding the process of investment from the procuring of local knowledge necessary to assess risk" (Gotham 2006:265). This transforms property into a liquid commodity by enabling investors to buy and sell instantly in what Pryke and Allen (2000) refer to as the "quick-fire space" of the global financial system—simply phrased by its promoters in Singapore as "Property in liquid form (trades on SGX)" (SIAS, accessed 26 May 2015). This

transformation however, does not just happen because REITs are allowable on paper, as the early history of REITs in the U.S. suggested, but because of specific actors (regulators, developers, and financial investors), actions (new laws, investment products), and contexts (rise of 'shareholder value' forms of governance). Furthermore, a true unboxing of the REIT means we must consider how these three features are produced. In other words, how do they get normalized through social processes that render the technical structure of the REIT and its *doing* more opaque? Opacity, or perhaps more accurately 'translucency' (Halbert and Rouanet 2014), as opposed to transparency being necessary for liquidity. After all, if intensive information is necessary to invest it would render the purpose of the REIT questionable. How is it that the REIT creates the 'fictional distance' (Pani and Holman 2014) that separates investment from local knowledges of discrete Singaporean properties? Thinking of the REIT *merely* as a 'shareholding company' acts as its own form of obfuscation; shielding the material (and spatial) effects of its socio-technical functioning from public debate.

1.2.1 The S-REIT structure

In Singapore, the structure of the REIT evolved in a piecemeal fashion beginning in 1999 with approval of property funds by the Monetary Authority of Singapore (MAS) (MAS 1999). It is not until 2002, however, that Singapore adopts the formal structure of the REIT enabling the first successful IPO and listing of an S-REIT that same year (Figure 1.3). The REIT is constituted by a 'trust deed' as a stand-alone trust fund, which is the official 'owner' of the properties in the investment portfolio (Manglani 2005; Sing et al. 2005). A trust company, approved by MAS, is appointed as a trustee to safeguard the rights and interests of the 'unitholders' or shareholders. It acts as a custodian of the properties, entering into an agreement

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⁸ The Monetary Authority of Singapore is the national financial services regulator for Singapore. Property funds include REITs but also funds that invest in the stocks of listed property development companies.

of sale with the 'sponsor' or property holder for acquisition or divestment, but otherwise plays little role in the REIT on a day-to-day basis. To fund the acquisitions of property the REIT will issue units or shares in an initial public offering process to investors. The Sponsor, in addition to gaining the cash payment from the REIT (the 'unlocked value'), will also often receive 30-40 percent of the IPO units for its continued relationship with the REIT, as it often is the 'pipeline' for future properties to be acquired by the REIT. That is it is the source for many of the REITs future property acquisitions. In Singapore, regulation requires an independent, professional asset management company to execute the investment strategy for the REIT, known as the 'REIT manager'. (The sponsor often owns the REIT manager.) The REIT manager is responsible for generating sustainable yields for the unitholders by increasing the property income from the tenants. In Singapore, the Unitholders must receive 90 percent or more of the property income for the REIT to be granted tax exemption. The rest of the income is used to cover the fees of the Trustee, REIT manager, Property Manager (covers day-to-day maintenance), development costs (capped at 10 percent of asset value) and financing expenses.

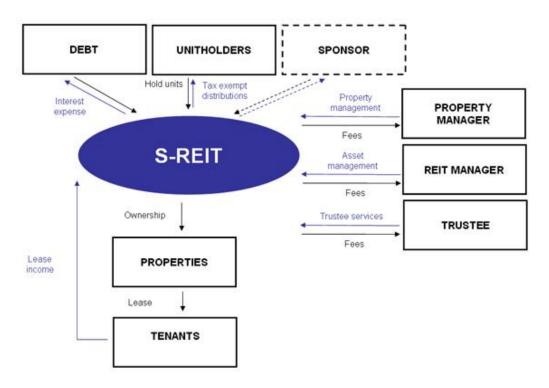


Figure 1.3: Structure of a Singaporean REIT

The legal structure of a Singaporean Real Estate Investment Trust. The REIT manager is 'external' to the Sponsor in an independent company. Though it is often a subsidiary of the Sponsor. Source: Securities Investors Association (Singapore), *A Beginner's Guide to Investing*, accessed 13 May 2015 at http://sias.org.sg/beginnerguide/02_07-REITs.php

It is the 'REIT manager' that plays the central role in the functioning of the REIT, turning, as Gotham (2006) suggests, the spatial fixity of property into a liquid commodity on a daily basis. The REIT manager is responsible for selecting the property portfolio, securitizing it, and making annual distributions to investors. This simple mediation attempts to bridge the divide between the properties' material particularities and their legibility to financial investors by *making* liquid assets to invest in. Understanding the REIT merely as a 'shareholding company' is perhaps a bit misleading. For most of its day-to-day functions reside in its 'manager' (analogous to a fund manager), rather than the legal entity that holds the properties (the trust). Recall that 'trust' and 'manager' are two distinct legal entities. In practice their identification is blurred. The REIT manager can be understood in the words of one interviewee:

"[The] REIT manager's role obviously is then to manage these properties to try and increase the returns. [...] So the REIT manager is a bit like a *fund manager*. At the property level it is to think strategically in terms of "what should we do with this *asset*". And the REIT manager's other role is to make sure you have the right capital structure. The REIT is an investment vehicle, so each property needs to be funded. And that could be in the form of bank borrowings or bonds. So it means looking at the capital structure and making sure you have the most efficient structure, which roughly translates to a cheaper cost of capital" (4, REIT manager CEO, *emphasis added*)

The legal and regulatory debates in Singapore around the development of REITs frame the complexity of the REIT entity simply; is it a company or the *product* of a financial (REIT) manager (Tjio and Lee 2006; Lee and Foo 2010)? However, the resolution of this question is not that important. Rather, it is the hybridity⁹—as both a firm with physical assets and financial product of the REIT manager (i.e. shares/units)—of the REIT entity that speaks to its place at the heart of the 'real estate/financial nexus' to which the recent crisis has drawn our attention. The legal separation of 'ownership' from the 'manager' of the property in effect enables its treatment as "asset" and its shift from fixed investment to a financial instrument from which 'value' is realized in form as a 'tradable income yielding asset' (Guironnet et al. 2015). It is the structural incorporation of the 'REIT manager' between tenants and a diffuse set of financial landlords that draws our attention. These REIT managers provide the interface between financial markets, property, and (retail) businesses. It is their primary task to use their power at such an interface to create property as a 'pure financial asset' (Harvey 1982). The 'REIT manager' is the key actor that reshapes (or produces) the geographies of real estate and finance (real estate/financial nexus) the 'REIT way' in Singapore.

1.2.2 Making space for the S-REIT market: from risky product to a catalyst for financial center development

By the summer of 2014, when I began my field work, despite the worries of some analysts that impending interest rate increases by the U.S. Federal Reserve would have a

⁹ Hybridity here does not draw on the theoretical literature of 'hybridity'. It is merely a term used to indicate the REIT as a hybrid between a company and a financial product.

dampening effect upon the REIT market, the S-REIT market continued to grow at an impressive clip. Yet, the S-REIT market did not just appear overnight, nor was it inevitable that the state would approve such financial structures for real estate investment in Singapore. The idea for REITs in Singapore can be traced back to 1986 when their formation was first mooted by the Property Market Consultative Committee (PMCC), an ad-hoc committee established to develop ideas to revive the real estate sector in the wake of the state's first economic recession since independence in 1965 (Ooi et al. 2006). Perhaps this gives some credence to Harvey's (1982; 1985) arguments about the role of the built environment being a fix for capital in moments of acute crisis. Yet, this is often politically mediated. Despite lobbying from global real estate consultancies, investment banks (Jones Lang Wootton (LaSalle) 1990; Siow 1999), and the Real Estate Developers Association of Singapore (REDAS), the government resisted the initial propositions for REITs because it had felt that Singapore investors were not 'sophisticated' enough. It was reluctant to use the strategy to, in their words, 'bail out' developers who sought out capital markets because of tight bank lending (Ong 1998; Ooi et al. 2006). In other words, REITs were far too risky for an 'immature' Singapore economy and investor pool.

The concept of REITs returned following the Asian Financial Crisis in 1997, and this time the government had become much more receptive under new leadership, with the now current Prime Minister Hsien Loong at the helm of the Monetary Authority of Singapore. The promotion of Hsien Loong to the directorship of MAS saw the departure from its more conservative regulatory stance on financial services. An era of bank and financial liberalization began (Hamilton-Hart 2002). In 1999, MAS announced guidelines for the development of 'Property Funds', chief among them Real Estate Investment Trusts or REITs following 13 years of lobbying by the REDAS. This was the same year MAS announced bank liberalization

guidelines in order to create banks that could be 'globally' competitive. But, more than just another financing alternative for developers, for the government, REITs became entangled in this wider economic restructuring effort, viewed in part as a way to enhance the depth of financial markets and further encourage the development of Singapore as an international financial center (MAS 1999). This wider effort emphasized that for the continued growth of the Singaporean economy its territorial space was far too small. Therefore, Singapore needed to develop an 'external wing' to the economy, encouraging firms, including property developers, to look afield for the sake of Singapore's internal growth (Yeung 1999, 2000, 2004; Phelps 2009).

Furthermore, if Singaporean firms and banks were to regionalize successfully as the government hoped, it felt they needed to adopt shareholder models of governance and become 'asset light'. They needed to off-load their non-core properties to have the flexibility to take advantage of extraterritorial economic opportunities. By 2006, MAS forced the issue for banks encouraging government-linked developers to do the same, resulting in the first successful REIT IPO in 2002. It is no coincidence that most of the earliest 'Sponsors' for REITs were government-linked firms with properties to off-load. Initially off to a slow start, the market responded with rapid growth in the number and size of REITs in the country after 2005 once tax incentives were solidified into the state budget. REITs were rationalized explicitly in the state budget along financial grounds. The Minister of Finance in the 2005 budget speech made much of REITs under the heading "Develop key engines of the economy: enhance our status as an international financial center":

"To broaden our capital markets, we will continue to encourage the development of Real Estate Investment Trusts (REITs)... [...]. We will strengthen Singapore as the preferred location in Asia for listing REITs. Promoting REITs will help enlarge our capital market, *grow our local fund management business*, and benefit other areas of the financial sector. While we have made good progress, Australia, Malaysia and Hong Kong are all actively developing their REITs markets. We therefore need to do more" (emphasis added).

There are three major features of these actions to highlight. First, the introduction of REITs required an internal restructuring of property ownership and management regimes. First, influenced by the state, firms (i.e. developers, banks, retailers) made available more 'space' in Singapore for securitization by forcing more property to come available in a short period of time (off-loaded from the firms) for REITs to acquire. Meanwhile, the government also disinvested in competing subsidized HDB office and retail properties it believed were oversupplied (Neighborhood Working Group Report 2003). This 'opened' up space for, and encouraged the expansion of REITs within the territorial economy of Singapore. These developments constituted an internal spatial reorganization of property. Second, as suggested by the REIT CEO (Interview 4) earlier, and reiterated by the Minister of Finance, REITs were intimately linked to the development of the fund management business. They were themselves managed by a professional 'asset' (REIT) manager. Finally, REITs were positioned as a way of developing Singapore capital markets as 'global' capital markets. Their chief role was producing secondary market *liquidity* (Singapore Budget 2005). Singapore is stylized in these accounts as a space that is in need of restructuring. It must change in order to launch the government's regional and global aspirations as a space of liquid capital (Lee 2015). One can think of S-REITs like a kite then—the sail of the kite being the growing accumulation of capital in the market acquiring properties as it 'flies' about (Singapore first and then) the globe, but always tethered to a base being the Singaporean economic space (particularly its retail space).

It seems in the words of one interview subject, the REIT market was functioning as the Government had hoped:

"The REIT market has created a new industry by itself. [...]. I think Singapore has done very well. Today REITs have assets with no relationship to the country. For example, there is a REIT that owns Japanese malls, nothing in Singapore except it happens to be listed here and its fund manager sits here. I think there is a German office REIT that is going to be listed soon. So in that sense it attracts other REITs to come, because they can tap onto the pool of capital. Because when

you have a certain cluster of an industry, you create spin-off. [...] it creates employment, because before these properties were managed but as part of bigger groups but there were no CEOs of REIT managers, no investor relations, and no asset management. No dedicated people to manage those assets, to enhance the assets" (4, CEO, REIT manager).

"The [tax] concessions were intended to enable the industry to acquire a critical mass of local assets as a base from which the Reits can expand abroad. *This has been achieved*" (Deputy Prime Minister and Finance Minister Tharman Shanmugaratnam, cited in Lee 2015, emphasis added).

The arrival of REITs at the Singapore stock exchange with assets totally unrelated to the country seemed to affirm the ascendency of the S-REIT market, and its role in catalyzing the development of Singapore as a 'global' financial center. Recall the REIT IPO booth I stumbled over (Figure 1.1). It was announcing the "First *Global* Hotel and Serviced Residence Trust" (emphasis added), with assets in Europe and across Asia, and to be listed on the Singapore stock exchange. In part, it bucked the trend of most REIT markets, which have developed largely along national lines, much like their real estate markets. Yet, the entanglement of S-REIT market development with the political-economic goal of international financial center development in such an active way in Singapore is, in part, why its impact on the internal dynamics of urban space in Singapore have been tempered or obscured from view. The government is quick to tamp down any expression of the view that REITs not be both positive for financial market development *and* for the commercial property market's investors and users (see Chapter 5). This is certainly true regarding the material impacts on retail spaces of Singapore—those spatially refashioned 'base' spaces to which the Singaporean REIT-kite is tethered.

1.3 Methodological reflections: interviewing the REIT and promiscuous sourcing in the field

My primary method was to make use of expert interviews. Between June 2014 and August 2014 I interviewed 14 individuals involved in the REIT market at various levels including CEO's of REIT managers, bank analysts, REIT marketers, auditors, real estate experts,

and investors located in Singapore. These interviews were further triangulated and analyzed using document analysis of REIT publications, including annual reports, prospectuses, and corporate websites. While there are 34 REITs in Singapore, I focused only on 'retail' REITs (see Table 1.2).

Table 1.2: Singaporean retail REITs

REIT Name	Туре	Market Capitalization (S\$ millions) (2014)	Net Asset value (S\$ millions)(2014)	Number of Properties (retail/total)
CapitaMall Trust (CMT)	Retail	6,767	9,858	16/16
Frasers Centrepointe Trust (FCT)	Retail	1,753	1,698	6/6
Frasers Centerpoint CommercialTrust (FCOT)	Retail and Commercial	910	1,800	1/4
Mapletree Commerical Trust (MCT)	Retail and Commercial	2,937	4,034	1/4
SPH REIT ¹⁰	Retail	2,665	3,160	2/2
Starhill Global REIT (SGREIT)	Retail	1,723	3,193	8/13 ¹¹
Suntec	Retail and Commercial	4,458	8,673	2/5

Source: DBS Vickers (2014); S-REIT annual reports and websites, accessed 15 October 2015.

The corporate interview has become a ubiquitous method in the discipline (Schoenberger 1991; Tickell 2007; Harvey 2010), and as interest in financial and political elites has grown so to have the calls for the need to 'study up' (Ho 2009; Harvey 2010; Kuus 2013). This thesis research engages directly in this studying up method, but rather than focusing on elites per se, it engages in an investigation into a particular process; that is, identifying the production and reproduction of REITs as a product of elite interactions. While conceptualizing financialization

¹⁰ SPH REIT was established by its Sponsor and government owned Singapore Press Holdings. It is Interesting to note that it is mostly property development companies and a newspaper that Sponsor REITs. Suntec is the only truly 'independent' REIT with no active sponsor. Singapore Press Holdings newspaper *Straits Times* is also the preferred marketing medium for REIT retail properties.

¹¹ Only two SGREIT properties are in Singapore. These are the landmark Wisma Atria and Ngee Ann City malls located on Orchard Road. Orchard Road is Singapore's largest shopping district.

generally, and specifically, the constellation of materials and social forms that constitute the REIT-ification in Singapore, I used the interviews to flesh out the social and spatial character of a technical process that is well documented in the technical literature on REITs. This process-oriented end legitimates a qualitative approach. The interviews enable one to understand what is going on behind the text printed on the page of an IPO prospectus (for example). In what follows is a brief discussion of how I obtained access (or did not) to interview subjects. I reflect upon how my multiple (often shifting) positionalities—as researcher, alumnus, insider, outsider, expat, and student— impacted access to respondents as an ongoing practice of negotiation, and speculate on the impact this had to the wider research. Ultimately, the purpose of these interviews is not to provide a 'representative' sample, but rather to enable the unpacking or the REIT as a process. Therefore, interviews are used to build upon each other to piece together the larger process. While the commonalities in the interviews provide triangulation for the basic facts of the market, it is often their dissimilarity that provides the productive room for analysis.

1.3.1 Negotiated conversations: beyond the threshold of the 'gate' (keeper)

Often times the greatest obstacle to qualitative research is access to data or participants.

And while access is no small hurdle, particularly in Singapore, it is helpful to think of access not as a threshold, but rather an ongoing negotiation which continues even after the document of consent to an interview required by the university ethics board has been signed. I went to Singapore with contacts at the National University of Singapore (NUS), but even here the ability to make use of those contacts was limited as my colleagues there had never worked at the crossroads of real estate and finance in Singapore.

Consequently the primary method of recruitment was by email. There were two rounds of email recruitment undertaken while in Singapore. The first entailed a round of emails sent to

bank analysts charged with covering the REITs for the purposes of the banks' investment teams. The contact information for these bank analysts were made publically available on each REITs' websites. In fact, gaining analyst coverage is often one of the key performance indicators (KPI) for newly established REITs (Interview 7, REIT manager CEO). The analysts are the primary gatekeepers for REIT managers attempting to acquire investment interest from institutional investors. The bank analysts give buy/sell/hold ratings to the shares of the REIT and provide expertise to potential investors (Interview 2, bank analyst). They are therefore in constant communication with REIT managers and the networks of real estate and banking interests which circulate around this industry. Furthermore, they are an important mediator in the financial system, enabling the transformation of the local particularities of property into the more general information sought by global investors. REIT managers work hard to convince analysts to cover their REIT, such that personal relationships between REIT CEOs and analysts are important. On the day I interviewed one REIT manager (7, REIT manager CEO) he said he had just come from a meeting with one such analyst and was meeting with another later that week to try to get them to cover his REIT. It is important to note that he lamented that gaining analyst coverage as a KPI was partly beyond his control as it was related to market capitalization. The second round of email recruitment was sent to the REIT CEOs and/or their representatives, but in most cases directly to the REIT CEO. For both rounds of emails the total number of individuals emailed never exceeded 40 individuals, reflecting the relatively emergent status of the REIT market in Singapore. As a result a high response rate was not expected, but because these individuals were considered 'experts' this tempered the low response rate.

Access to other respondents at times came organically. On a whim I decided to go to an alumni event for The University of North Carolina at Chapel Hill at the invitation of professor

doing a summer program at NUS. There I met an investor whose private equity fund established one of the newer REITs. And while, he would not allow me to record our conversation or to quote him directly, he helped to connect me with other contacts in the real estate sector that were also alumni of UNC. I was then able to leverage this institutional identification to acquire further contacts vitally positioned in the S-REIT and Singapore real estate market. My various university identifications often provided the point of entry. At the end of the first interview the respondent, unprompted, stated her reason for agreeing to participate. She said she had a relation who was currently at the University of British Columbia, so she felt she should support someone from UBC. These institutional affiliations no doubt opened doors that otherwise would not have been open on many occasions, though this is not always the case. As one potential respondent reported that they were already working with researchers at the moment and would not have time for another study.

As I already suggested, the issue of access does not just stop with the confirmed meeting. Because acquiring contacts was difficult I asked respondents to suggest anyone that would be a good person to contact regarding the REIT market, particularly when the conversion moved into an area not of the respondent's expertise. At my very first interview (1, bank analyst), this seemingly innocent question almost seemed to end in disaster when the respondent became very defensive. She, perhaps, felt that by my asking the question, the mere suggestion of talking to others meant that I had doubted her input. And while I made it clear this was not the case—stating that it was only necessary for my research process. For the respondent, it seemed to suggest that I questioned her position as an 'expert' on the topic of REITs. And while trying to allay the concerns immediately, I found that perhaps my assumption of a *mutual* understanding of my position and process as researcher seemed to falter as well. This incident seemed to put

both our respective positionalities into question. Perhaps gender played a role in the response to my question, though it is difficult to say. 12 Furthermore, though I cannot say conclusively, it opened a crack into the social dynamics of being a bank analyst for REITs. Her reluctance to suggest potential respondents suggested a tension between the need to talk and exchange market information among participants and the need to uphold institutional and social relationships.

Interview subjects often wanted to know who I had spoken with and what I had said. This suggested that whether I liked it or not, I was made into a market participant. Therefore, the clear separation that one might attempt to build as a researcher, as an outsider, broke down in the sociality of marketization. Sometimes this meant I was someone to talk to because I might bring a new approach, while at other times it likely meant I was considered potentially threatening in the sense that I might not know the social fault lines which run through the market. As a result, differential access, not just to the person, but their experience, was made with every utterance.

Perhaps the most salient way in which this negotiation happens is through the way in which the interviewee comes to understand the position of the researcher. I often kept my description of my field of study—economic/urban geography—to a rough sketch such that respondents would not get distracted in an elaborate story of what it is that I *do*. This lack of clarity enabled the interviewee to make certain assumptions. At times these can be illuminating:

Researcher: What goes into your buy, sell, hold recommendation calculation? In terms of indicators, indexes for help, etc.

Respondent: The way I do it and each analyst has his own way of doing it. I do it from the perspective if I were a medium to long-term investor. So it would depend upon what I believe is the attractiveness of the REIT relative to the current evaluations [of asset value], market conditions [liquidity]. Because most securities [pricing]... I know in university the market is a

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¹² Banking is a male dominated discipline with a masculinist culture of expertise and privilege (Ho 2009). Had I played right into this culture by even giving the appearance of questioning the validity of a female interviewee's response? (It was certainly not my intention.) Did this strike a nerve with what many women relate to in the industry of being looked over by their male colleagues? As a male researcher these questions were certainly at the fore of my mind. But since I was not in a position to ask about these issues, they have largely gone unresolved. Furthermore, the exchange might have had nothing to do with gender.

random walk, but there is a lot of mean reversion going on.[...] (Interview 2, bank analyst, emphasis added)

To give a little bit of context, I was attempting to ascertain in this question if there were specific indicators, benchmarking indexes, or evaluation formula, as well as any other factors of a calculative nature that are used to help produce a particular recommendation to investors for a REIT security. In other words, how does the respondent get to that decision? It took a few iterations of the question for the respondent to feel comfortable answering. He started off in very generic terms, but what was most interesting, was a comment in which he referred to the 'random walk' theory of stock price changes. This is the theory that stock price changes are independent of each other and that past performance is no indication of future performance. For those who follow this theory, it means that you cannot outperform the collective market and would potentially have bearing on his recommendation. It is a fundamental part of the 'efficient market hypotheses' (MacKenzie 2009). He gets to a point where he starts to describe the movements of REIT security prices, then reverts. He begins his statement but then goes on to consider what I, the researcher, might have learned. He states, "I know in the *university* the market is a random walk [...]." He is making an assumption that my training and position in the university—where theory comes from perhaps (?)—would have me believing in a particular economic theory to which he wants to offer a rebuttal. Yet, it is this rebuttal and the layered understandings it illuminates regarding a nuanced set of theories about the economy as practiced that is valuable. It opens up an avenue into his thought processes far more than if I had interrupted to suggest that my experience in university did not mean I held such an assumption. The 'assumptions' held of actors and between actors in the interview process then are not merely 'bad' things to shed, but open up new points of access and discussion.

Though I had questioned the solidity of my 'outsider' positionality earlier, there was at least one way in which this positionality was affirmed. At the end of an interview I was struck by the level of casualness expressed by the respondent:

Researcher: Thank you very much for your willingness to participate in this interview. It will be very helpful.

Respondent: No problem. Hey, and if you would like to grab a beer anytime for a chat just let me know—does not have to be about your research.

Researcher: Ok. [Politely] Thank you.

Perhaps, I should not have been caught off guard by this, but no other interview subject had made such an offer, even when they had been warm during an interview. In part, this may have been due to the setting of the interview, in a coffee shop instead of a corporate office where most of the others had been conducted. However, the interviewee was also far more willing to discuss 'political' issues surrounding the REIT market and far more willing to criticize its collective practices, his own firm, and the state. Second, that he felt quite secure in sharing this with me suggested something more than just merely a casual conversation in a coffee shop. While, he was by far one of the more talkative respondents, and one should always be wary of the 'pufferfish' (Dunn 2007), a more telling explanation seemed to come out of his narrative as a white expat from an Anglophone country. This is important, because this could also describe the positionality of me, the researcher. Though, I would not consider myself part of the formal 'expat' community (having had little interaction with it) my respondent may have easily identified me as such. This apparently (assumed) shared commonality, particularly in a country where the Anglophone expat community is "disembedded from the local [Singaporean society] in the home and other household social spaces" may have explained his readiness to talk and to comment on issues other respondents (mostly locals) had not touched (see Beaverstock 2002:525). Our common

'outsider' status in his eyes was therefore vital to the information and stories he was willing to tell.

Access, then is more than just access to persons, but also of ideas. It is an ongoing negotiation, often not had by any formal communication, but throughout the process of the interview and the processes through which the respondent attempts to position the interviewer in a way that allows them to relate. With this knowledge, interviews can be a compelling, if partial, tool that offers not just a source of 'facts' about a topic, but a richness of social information.

They are not just statements but necessarily sites of observation (Kuus 2013). These interviews are largely supported and interrogated using news reports, company reports, and promotional materials. In particular close attention is made to the political discourse reported in the media as well as the ways in which the REIT managers describe their work in their annual reports. All together providing a vivid, if incomplete picture of the ways in which property is remade for finance. The field cannot be bound by a single method, but entails a certain kind of methodological promiscuity to capture even a partial image of its sociality or spatiality.

1.4 Structure of thesis

In the chapters that follow, I deepen the *encounter* with the REIT to understand the intersections of real estate, finance, and the retail spectacle in Singapore. Research on REITs is extensive in business studies and real estate economics, yet this work is largely focused upon the economic performance of such structures, highlighting returns on investment, their role in modern financial portfolio management theory, and their correlations to other sectors of the economy for 'ideal-typical' investment planning purposes. This analysis departs significantly from these largely abstract and stylized econometric approaches to consider the REIT as a *socio*technical formation. Consequently, it draws upon cultural political economy approaches to

finance. By doing so, I tackle directly the material geographies of changing property management regimes introduced by REITs, as enacted through their managers, in Singapore. The key analytical concept for this thesis is that of property and its transformations. Specifically inspired by Christophers' (2010) call for a greater consideration of the *economics* of property, I consider the social, spatial, and technical processes through which REIT managers perform or transform their property into a financial asset. Furthermore, by drawing upon the notion of the 'lived process of financialization' (Kaika and Ruggiero 2013), I reveal how the effects, experienced by bodies in retails spaces of Singapore are folded into the functioning of the REIT, and the subsequent financialization of the urban retail spectacle. It is the hope that this will not only extend the work begun by Christophers on the reappraisal of property, but also contribute more broadly to a recently reinvigorated analysis of urban financialization.

This introduction began with a contextualization of the REIT market, outlining some of the key conceptual contours of the thesis including the definition of a REIT and the political economy of their development and challenges in Singapore. In the rest of the introduction, I discuss my methodology. It involved expert interviews, document analysis, and field observations. Chapter 2 reviews the relevant literature to REITs in Singapore, namely theoretical scholarship related urban financialization: critical literature on the real estate/financial nexus, theories of property, and the literature on the urban and retail spectacle. In bringing these literatures together, I develop the context for the two empirical chapters that follow.

Chapter 3 considers directly the transformation of property by REIT managers in Singapore. Rather than taking the 'success' of the internal spatial reorganization efforts supported by the state to create a 'base' from which to launch 'global' REITs as given (Lee 2015), the analysis asks how is the 'base' made? How is Singaporean property as a "pure

financial asset" materially produced? The chapter focuses upon the specific, concrete actions of the REIT manager which are grounded in a technical calculative language embedded in socially constructed knowledge ecologies of finance (French et al. 2011). Where the econometric analyses of REITs narrowly prioritize the yield to investors, this analysis presents the centrality of *liquidity*, a common measure of financial market depth, to processes of property financialization and REIT market formation. This is where the supposed 'unlocking of value' trapped within property (and distinct from its uses) occurs. In many ways the connections have already been made by state actors in the Singaporean Budget, participants in the REIT market, and scholars such as Gotham. This is not all-together new, but this chapter focuses upon how liquidity is *performed* by REIT managers. It stresses the materiality of liquidity, extending beyond its common conception as a representational mystification or fictional fetish (see Christophers 2010). The chapter begins to do the intellectual work necessary to better engage with an understanding of finance's physical materiality (Bansal and Knox-Hayes 2013).

Chapter 4 builds upon the work on the relationship between liquidity and the material transformations of property to consider what the effect of these performances of liquidity by REIT managers upon retail space in Singapore. Using interviews and field observations from selected retail REIT properties, I present these collective effects as an acceleration of the shopping mall spectacle; linking urban financialization and the urban spectacle together through the material transformations of retail properties. Furthermore, not only do I argue that financialization is a contributor to the intensification of the urban spectacle, but that within the space of retail managed by REITs the urban spectacle becomes mobilized as the means by which that financialization is sustained. In effect the urban spectacle is folded into the processes of

urban financialization by REIT managers. The REIT then is posited as a securitization of the spectacle as much as it is of property. This chapter is followed by a conclusion (Chapter 5) in which I reflect upon the implications of the empirical chapters for our wider understandings of the geographies of financialization, particularly at the urban scale. Additionally, I reconsider the politics of this unpacking of the 'black box' of the REIT. Without the (as of yet) sting of crisis, it is all too easy to ignore the REIT as a mundane, even staid 'innovation'. By returning to the notion of the encounter, I attempt to open up political possibilities not bound to the whims of crisis presented by an analysis of 'mundane' finance. This is perhaps the best way to activate the political subtext of Wojcik's (2012) call to render transparent finance's concrete materiality before we lose our life's savings in the next crisis!

Chapter 2: Finance's urban redux

2.1 Introduction: Financialization: a narrowing 'narrative of numbers' in Singapore

The growing primacy of financial actors, narratives, and obligations in the contemporary global economy means that participation in the 'economy' necessarily requires one to have some form of financial literacy. Without it an individual risks not only economic marginalization, but potential social, cultural, and even political marginalization. Participation in financial markets is increasingly being tied to good citizenship (see Davis 2009 on the U.S.; Lai and Tan 2015 on Singapore). However this is not only true for individuals or households, but also for firms. As discussed in Chapter 1, the Singaporean state has been involved in encouraging state-linked property firms to participate more fully in financial markets by sponsoring REITs. Beyond merely an alternative form of financing, the state believed such structures made for 'better' firm management in accordance with international practice to be 'asset light' and prioritize public share ownership (Interview 2, bank analyst). This means firms were to not carry large, low yield investments, such as a completed property developments, on their accounting sheets. In other words, REITs fit within the state's (increasingly financialized) normative conception of how firms should behave. Offloading their property to financial markets offered sponsor/developers a way to 'exit' their properties and in many cases still retain some of the income from them by becoming the major shareholder of the newly established REIT. For one real estate consultant (Interview 9) the state's involvement was the central reason for the implementation of the REIT market. In addition to better management of the sponsor's firm, the real estate consultant (Interview 9) also suggested that REITs meant better management for the properties as well, since management would have to respond to shareholders rather than the varied—sometimes perplexing (he suggested)—interests of private developers (see Rouanet and Halber 2015). The

second major 'benefit' of REITs the real estate expert asserted was that it made real estate more transparent, since now the property income (among other measures including asset value, market capitalization, distribution yield, debt to value ratios, etc.) would be publically reported. Public reporting gives these financial metrics—this 'narrative of numbers' (French et al. 2011)—disciplinary power. While participating in financial markets through REITs offers a new opportunity for property owners, the disciplinary power of the REIT to structure the management of a property also narrows what can possibly be done with the property, in as far as it might negatively impact the financial return of the property to financial investors.

Such disciplinary power (in addition to the growth) of financial markets is the central thrust of the contemporary neologism of financialization (Coppock 2013). Furthermore, given the seemingly pervasive power of finance across the society, financialization is beginning to acquire the status of a 'metanarrative' (like neoliberalism) or "a new master concept to capture and explain the dynamics of financial change" (Engelen and Konings, 2010:605). Still, debate remains as to whether or not financialization is merely the penultimate stage of capital accumulation (Arrighi 2003; Harvey 2010; Christophers 2013) or a unique structural transformation in the history of capitalism (Krippner 2005; Lapavitsas and Powell 2013). A full consideration of this debate is beyond the scope of my thesis. In the case of Singapore, it is not my contention (at present) that the whole of the economy is 'financializing' (though not an impossibility) but rather to highlight one particular process of financialization in the property sector which has a potentially strong impact upon the city-state. However, despite this chapter's modest ambition, it is clear that understanding the increasingly important role of finance has become necessary for understanding contemporary economic and urban geographies (Sokol 2013; Moreno 2014). This is no less true for the commercial property market in Singapore as

REITs and other REIT-like financial structures and instruments come to play a greater role in the day-to-day functioning of urban space.

At its most elemental this thesis is an investigation of the relationships between the work on financialization and the 'urban' with an eye towards understanding finance's physical materiality—that is its functional interconnectedness to the materiality of the 'real world' (Bansal and Knox-Hayes 2013). The concept of materiality can be drawn through the entire chapter. I suggest that such an emphasis presents a possible starting point from which to theorize and detail empirically how financialization has taken shape (in one way) as an urban process (see Moreno 2014). The following chapter is (loosely) divided into three sections. The first considers the re-emergent interest in what is described as urban financialization and its position within the broader debates on financialization. The second bores into the topic of property, which is the central (materialized) medium through which financial capital interlocks with the urban as, following David Harvey, a 'spatial fix'. The third section presents an argument for bringing the work on urban spectacle and financialization into a productive dialogue.

2.2 Financialization fragmented?

Work on financialization has been punctuated in the last decade by the unfolding of the Global Financial Crisis, which has rendered quixotic the notion that finance might be anything less than central to economic accumulation. While the broad meaning of financialization—the rise of the financial sector and financial markets over the past few decades—is generally agreed upon, different approaches have led to a multitude of meanings reflecting differing theoretical standpoints and scales of analysis (Pike and Pollard 2010; French et al. 2011). At its most extreme Lee et al. (2009) suggests 17 different meanings for financialization exist in the literature. While, Wissoker (2013:402) breaks the work on financialization down into four

approaches which capture the widest swath of such variegation: ¹³ (1) a finance-centric political economy approach, focusing on new financial instruments (for example, Leyshon and Thrift 2007; MacKenzie 2006; Pani and Holman 2014); (2) a corporate-centered political economy, which attends to the strategies of corporations and emphasizes profitability from financial or feebased work (Krippner 2005, 2011); (3) an analysis centered on shareholder value (Williams, 2000; Froud et al., 2000, 2006; Krippner 2005; Ho, 2009) and (4) a cultural economy approach that examines how new forms of finance are part of everyday life (Langley, 2008b, 2014; French and Kneale 2009; Lai and Tan 2015).

These four approaches have yielded a picture of financialization that is marked as an inherently multidimensional (economic, political and cultural) phenomenon not reducible to any singular definition. Each represents differences of emphasis rather than fundamental disagreement (contra Christophers 2015). These can be roughly mapped along three distinct scales of analysis: (1) the networks of the global financial system (for example, Sassen 2001); (2) the role of finance in reshaping national political economies or firms (for example, Blackburn 2006; Dore 2008; Christophers 2013; Lapavitsas 2013); (3) and effects at the households and individual level (for example, Langley 2008ab; Smith 2008). In its most systematic iteration (worth quoting at length) these perspectives see financialization as,

"an interactive process where non-financial companies make profits by speculating in capital markets; banks in turn have transformed acting largely as agents converting assets into loanable funds for producers and consumers; and workers have sought assets and credit to finance consumption as wages have stagnated. The result, the shocks of 2007 and 2008 and the aftershocks of the Eurozone crisis, has illuminated an apparatus of financial accumulation extending across all levels and dimensions of social and economic life, based on the principal of *profiting without producing*" (Moreno (2014:247) summarizing Lapavitsas (2013), emphasis in original).

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¹³ Other typologies include French et al. (2011) and Rutland (2010), both of which share some features of Wissoker (2013). Christophers (2015) has recently provoked a conversation about the 'limits' to financialization. He suggests that the multiplicity of meanings is leading to a structural incoherence of the concept. I would argue this 'incoherence" is overblown. Rather different scholars have attended to different aspects of a complex phenomenon. Certain the concept does risk becoming diluted slipshod usage in the same way that neoliberalism is often used.

Financialization, simply put, in this thesis is both a "pattern of accumulation in which profits accrue through financial channels" (Krippner 2005:174) and the growing political and economic influence of those channels in the functioning of daily life.

And yet, most contemporary studies fashion financialization as a rising tide of universal extent (Engelen 2008; Weber 2010). When the geography of financialization is addressed it is left to the edges of the analysis. Geography is often fashioned in a scalar fashion, as merely an empirical surface upon which events occur in contingent ways. Such analyses offer what Sokol (2013:510) argues is a "useful, if only broad, macroregional, picture of the contours [of financialization]" and gives weight to Moreno's (2014:247) suggestion that "what has been withheld is an account of the underlying processes that creates the conditions for financial growth". And while some place-based approaches to financialization have been effective in spelling out the 'lived process of financialization' as a geographically variegated reality (Kaika and Ruggiero 2013, for example see Coppock 2013; Hendrikse and Sidaway 2014) the central criticism that studies of financialization have paid too little attention to space remains (French et al. 2011; Christophers 2013). Though overtly geographical accounts of financialization have done much to establish the *constitutive* role of space and place in the 'unfolding' of financialization induced crisis (see Langley 2008a; Martin 2011; Aalbers 2012; Pani and Holman 2014) there is a noticeable silence as to the constitutive role of space in financialization itself. The spatial study of financialization has remained unfortunately fragmented and loose, despite French et al. (2011:814) referring to it as a "profoundly spatial phenomenon". In part this follows from a tendency to prioritize the 'immaterial', 'quick-fire space' (Pryke and Allen 1999, 2000) of capital markets as omnipresent global imaginaries rather than attending to the concrete

¹⁴ A reference to the 'objectification of money' as a fast, mobile object within the space of international finance in contemporary capitalism.

materiality of their formation and growth. The relational linkages between spaces (i.e. between middle class suburbs and global financial markets through the 'subprime machine' as demonstrated by Langley (2008a)) certainly have presented a fruitful avenue for understanding, in part, the spatiality of financialization, but even this must go further, as French et al. (2011) suggest, to consider the material geographies of such spaces' interactions with finance. Where, for example, is the supposed 'value' circulating within these interlinked spaces 'produced'?

But, there is an opening. In their analysis of the Global Financial Crisis and the events that led up to it French et al. (2009) argue that the crisis, in part, emerged out of the inter-urban competition towards deregulation that arose between the 'global cities' of New York and London. In the subsequent post-crisis period it seems these cities have emerged better off than they were before, having largely consolidated financial power¹⁵ and surged ahead to become gilded cities of 'super-prime' housing and amenities enthralled to the needs 'high-net-worthindividuals'. The financial crises' 'solution'—to morph into a sovereign debt crisis—seems to confirm the notion that the 'global city' has become the "normative expression of international financial domination" (Moreno 2014:248) in this the 'urban age' of global finance (Brenner and Schmid 2014). This critical perspective suggests two important provocations for our understanding of financialization and its spatiality. First it suggests that the urban scale should not be 'jumped' over too quickly as merely the site where the constellation of contingent financial forces land. Rather, that 'landing' is consequential. In recent years, the number of accounts of urban financialization, specifically the financialization of the built environment, has grown significantly. This is particularly evident in recent special issues of Urban Studies (forthcoming), Regional Studies (2014), Cambridge Journal of Regions, Economy and Society

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¹⁵ Bassens and van Meeteren (2015) and Buckley and Hanieh (2014) have illustrated the ways in which financial actors and affiliated 'financialized' advanced producer services have constituted an *urban* class monopoly.

(2013), and the International Journal of Urban and Regional Research (2009). This reflects the absence of the urban as a scalar register in earlier accounts of financialization as well as a desire to understand the variegated effects of an apparently 'global' process in particular places.

Second, it suggests more fundamentally, there might be something specifically *urban* about finance and financialization. Forty years ago, Lefebvre (2003 [1970], 1991 [1976]) hypothesized that in the collapse of Keynsianism, or industrial capitalism, capitalism could find its survival in a planetary urbanism which offered a new medium of global accumulation (i.e. accumulation-by-urbanization, Wu 2009). Further, he suggested there was nothing stopping the primary circuit of productive investment from becoming dominated by a secondary circuit of money (a systemic inversion), capturing the production of urban space. In the 1970s and 1980s, Harvey (1982) explicitly linked this hypothesis concerning the circuits of accumulation to monopoly rent and financial capital as merged in the urban process (synching credit and space production). In other words the spaces of our cities could, he concluded, be reconstructed into 'pure financial assets' to be fixed and liquidated to "realize value without producing it" (1974:254), anticipating what would be called financialization in later years. It follows that one way of resolving the literature on financialization's failure to develop (or extend) the implications arising out of Harvey's theorization of finance-capital's spatial fixity and fluidity (French et al. 2011; Christophers 2015) is to explore the notion of financialization and urbanization as an interdependent process.

2.2.1 Financializing the urban, urbanizing financialization?

Between being attendant to financialization at the urban scale or the urban form financialization might take, much of the literature has focused on the former, while tackling the latter has presented a greater challenge. The literature on financialization within urban and

economic geography has emerged out of and transformed long standing interests in the geographies of mortgage markets (Wyly et al. 2006; Aalbers 2012), the geographical concentrations of finance (Wojcik 2009) to more recent accounts of the financialization of infrastructure (Torrance 2008, 2009; Ashton 2012, Ashton et al. 2014; O'Neill 2013), urban redevelopment (Rutland 2010; Charnock et al. 2014; Guironnet et al. 2015), and urban policy as contemporary modes of urban governance (Hackworth 2007; Weber 2010; Rolnik 2013). The majority of these studies are set up in such a way as to describe how processes of financialization are taking over structures of the city, and then carving it into veritable menu of "post-industrial widgets" (Newman 2009) for the selection of asset hungry financial investors—an irrepressible impulse to turn every feature of urban life into a financial asset (see Leyshon and Thrift 2007). Thus, confirming in case after case the 'financialization of space/of the urban' but it is less clear how financialization itself might be understood as spatial (or urban) beyond its effects. In other words, is it more than just a concept to be delineated on an empirical surface (such as a city or a country bound by territorial borders)? Is it unchanged by that 'surface'? Space itself is under theorized in much of the work. And while certainly attending to space as contingent is valuable to develop a nuanced reading of financialization 'on the ground', this does not address French et al.'s (2011) call to understand financialization beyond a scalar register.

There have been attempts to tackle the interdependencies between urbanization and financialization. Aalbers (2008) has argued that the financialization of mortgage markets, extending Harvey, is a new stage of capital switching. It entails the production of a new circuit—the quaternary circuit, representing financial markets as an investment channel in its own right. Mortgage markets were originally design to facilitate capital switching to the secondary circuit of capital (the built environment), but today mortgage markets not only do this but are *also*

designed to support capital switching from the secondary to the quaternary circuit of capital.
Their financialization is their transformation from facilitating markets to valuable markets in their own right. As Aalbers points out, this is not about more or less capital switching to the secondary circuit but instead emphasizes that the secondary circuit is increasingly tied to what happens in the quaternary circuit. They become entangled, or interdependent. As the quaternary circuit comes to dominate the other circuits of capital it can certainly lead to over-accumulation and crisis (see Christophers 2011 on capital switching and the most recent crisis), but this does not necessarily arise from the competition for financing between circuits of capital. However scholars (Gotham 2009, 2014; Buckley and Hanieh 2014) question whether capital switching alone is sufficient to explain accumulation logics fueling the growth of the financial sector and its spatiality. In their analysis of the property boom in the Arab Gulf region Buckley and Hanieh (2014:171) argue that:

"The recent integration of real estate and financial markets is not simply a by-product of property-market liberalization or growing access by global finance capital to local real estate assets; rather, marketized urbanization has in part constituted a *strategy of geofinancial reengineering*, in which materially tangible real estate mega-projects have provided a key mechanism for Gulf states to fuel *growth and diversification in the financial circuit*" (emphasis added).

Referring to this in the Gulf states as 'diversification by urbanization', their analysis hints squarely at the complex interplay between financialization and urbanization, each fundamentally transforming the other. Thus, reducing financialization to Harvey's forty year old spatial analysis of capital accumulation is too reductive and counterproductive at worst. And yet, because of Harvey's path-breaking work, the urban seems a strategic critical starting point to theorize 'spacing [of] financialization' (French et al. 2011).

¹⁶ And from the primary (production) and tertiary (social infrastructure) circuits

¹⁷ Christophers 2015 argues that much work here has done little more than 're-invent the wheel' by relying to fully on Harvey's analysis. For this reason he questions the value of the concept of financialization.

In recent years scholars have attempted to consider more fully the *implications* (not mere replication) of Harvey's analysis more directly in an urban world "under conditions of financialized global capitalism" (Bassens and van Meeteren 2014:1; Buckley and Hanieh 2014; Krätke 2014; Moreno 2014), developing frameworks which further attempt to dissect the potential ecological dependencies between financialization and urbanization on a 'molecular' level. Interestingly, where this has been spelled out most clearly is in attempts to theorize the 'transnationally extended urban system' (Krätke 2014). Bassens and van Meeteren (2015:3) have sought to theorize an augmented world-city hypothesis under financialization. They argue that "world city archipelago remains an obligatory passage point for the relatively assured realization of capital", but the geography of financial capital's logics have been more widely dispersed outside traditional international financial centers as a result of the co-production of operational and financial knowledge by financial actors and advance business service firms. ¹⁸ Together, each theorizes urban systems which both propel financialization unfolding across "economies and societies" (Bassens and van Meeteren 2015) and reproduce it as a spatialized system of logic. These however, are limited by their finance-centric orientations. Moreno (2014:244), mapping Lapavitsas's (2013) conceptualization of financialization onto Harvey and Lefebvre's analysis of capital switching, argues that "urbanism does not merely reflect or represent the culture of financial accumulation, but has been a crucial socio-spatial process enabling the permeation and penetration of finance into the fabric of daily life." He, alongside Buckley and Hanieh (2014), goes the furthest theoretically to stipulate financialization's *urban* form, particularly as historicized in this current conjuncture. This is done by attending to the structural interdependence between finance and real estate implicated by the notion of the real estate financial complex/nexus.

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¹⁸ Advanced business service firms include legal, accounting, financial, and consulting firms.

In some ways these studies remain speculative, drawing out theoretical arguments for further developing the interactions between urbanization and financialization though remain in need of greater empirical study (Guironnet et al. 2015). For this reason, I attempt to use this empirical study of REITs in Singapore to evoke the theoretical promise of *urbanizing* financialization, unpacking not only the financialization of urban space but asking how urban processes *work back* on processes of financialization.

2.2.2 (Re)centering real estate in the real estate-financial complex/nexus: avoiding theoretical fragmentation through an ecological approach

At the core of our understanding of urbanization is the 'real estate financial complex' (Aalbers 2012:7) which facilitates the absorption of surplus capital into the built environment (the spatial fix). Likewise the real estate financial complex plays a central role in our understanding of urban financialization, namely as a driver of the most recent crises ridden bout of financialization through the securitization of mortgage markets. Further, as the financialization of the urban continues, the real estate-financial nexus's role in shaping the dynamics of urbanization grows and transforms. The intermingling of real estate and finance as symbolically represented by such a complex has been documented in the US and UK since the 1980s and 1990s (Ball 1986; Cloakley 1994; Pryke 1994; on the US see Feagin 1987) with the 'meteoric rise of property as a sphere of investment' (Ball 1986:455). Thirty years on and the results of this could not seem anything less than fundamental. The financialization of real estate was the start of a seemingly linear move to its full blown integration within the financial circuit. How this is handled in the literature is inflected by three distinct currents of intellectual thought running through the work on 'urban financialization': Marxian political economy, cultural economy, and institutional political economy.

Marxian political economic approaches to urban financialization rely primarily upon two interrelated concepts drawn from Harvey's spatial analysis of capital accumulation. The first is the capital switching thesis that connects surging investment in the built environment to falling rates of profit in the primary circuit of production (see Gotham 2006, 2009; Aalbers 2008; Rutland 2010 and Christophers 2011). (See discussion of Aalbers above.) The second, developed by Harvey to explain the role of land (including the built form) in the process of capital accumulation, is the treatment of 'land as a financial asset' (1982). Not only does land have a use value but monopoly rents can be extracted by owners of land through its exchange (as real estate) and from those desiring to use it:

"Landowners receive rent, developers receive increments in rent on the basis of improvements, builders can earn profit of enterprise, financiers provide money capital in return for interest at the same time as they can capitalize on any form of revenue accruing from the use of the built environment into fictitious capital (property price), and the state can use taxes (present or anticipated) as backing for investments which capital cannot or will not undertake but which nonetheless expand the basis for the circulation of capital" (Harvey 1982:395).

When individuals come to view land from this perspective, only in terms of "the rent it might yield", then it becomes a 'form of fictitious capital' or 'interest-bearing capital' like stocks, bonds, or debt. This theorization has been subsequently deployed to highlight the financialization of property/real estate by virtue of "increasingly being valued on strictly financial grounds" (Christophers 2010:98). This has become the basis for most of the recent Marxian work on urban financialization which has attended to real estate and its distinctive role in urban development (Kaika and Ruggiero 2013; Charnock et al. 2014). In particular these concepts have been deployed to unpack the rich empirical narratives of the 'lived process of financialization'. For example Kaika and Ruggiero (2013) chart the impact involved in switching the valuation of industrial land owned by Pirelli (the tire manufacturer) from a depreciating asset to the rent it

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¹⁹ Further discussion is beyond the scope of the analysis.

²⁰ Harvey (1982) treats land and property interchangeably, both meaning "land and its appurtenances".

would yield in the real estate market and the accordant changes to the social structure of the area. For the most part these largely confirm Harvey's thesis while demonstrating that not only are the obvious actors impacted by the increasing tendency to treat "property as a pure financial asset" but so too are industrial capitalists (facing crisis), state, and city authorities whom often actively support such measures (Halia 1988, Guironnet et al. 2015).

A second approach to urban financialization draws principally on cultural economy perspectives including actor-network theory. Attention is given to the calculative agencies of financial actors and the impacts such agencies have once they become direct or indirect owners of real estate. Calculation for these scholars is at its most basic, "a process in which entities are detached from other contexts, reworked, displayed, related, manipulated, transformed, and summed in a single space" (Callon and Law 2005:730). How this is done is indefinitely variable, the function of material arrangements including bodies, formulas, ideas, technologies, tools, etc. As David and Halbert (2014:518) argue, incorporating Callon and Muniesa's (2005) definition of a market, "the financialization of property markets can be analyzed as a possible outcome of a confrontation between a transnational financial calculative agency and [non-financial] others." These others include, a wide of array of actors including property developers, planners, and real estate agents whose own practices confront the practices of financial actors in the process of market making. Work in this vein has largely attended to the 'locational' geographies of real estate investment as an effect of the calculative techniques used to assess the suitability of potential real estate acquisitions by financial actors (Guironnet et al 2015). Principally focused on commercial real estate investment, these studies have documented the role of categories and risk-adjusted return calculation techniques derived from market finance (Henneberry and Roberts 2008; David and Halbert 2014; Crosby and Henneberry, 2015), the role of portfolio management

practices (Henneberry and Mouzakis 2014), and the role of developers as mediating the circulation of such techniques between financial actors and other actors involved in real estate (David and Halbert 2014; Searle 2014; Theurillat and Crevoiser 2014) which collectively produce a geography of investment that is highly selective for location, characteristics of property assets, and for types of tenants (Lizieri 2009; Halbert et al. 2014).

The third (and last) approach to urban financialization is an institutional political economy, which is attuned to the policy, legal, and regulatory shifts that precipitate financialization. These accounts avoid the potential danger to "misspecify financialization as a process that unfolds 'out there'" (Ashton et al. 2014:4; Weber 2010) from a singular capital logic but instead view urban financialization as a policy project (Christopherson et al. 2013; Pacewicz 2013) which is "multidimensional, contested, and conflictual" (Gotham 2009:360). Like Krippner (2012) this often describes financialization as the (un)intended consequence of particular policy decisions made by local and national actors. Whether it be through Weber's (2010) account of tax-increment financing (TIF) districts, the Arab Gulf states' 'diversification by urbanization' (Buckley and Hanieh 2014), or the US Gulf Coast's deployment of reconstruction bonds (Gotham 2014) these studies highlight the fundamental role local states play in driving processes of financialization—often producing novel circuits of accumulation—rather than being merely consumed by it.

This three-fold typology of approaches leads to three points of intervention. The first considers the role of 'real estate' in the 'real estate financial nexus'. As Buckley and Hanieh (2014) note, most studies looking at the 'real estate financial nexus', including those outlined above, have placed the weight of analysis on the role of finance and its impact on the built environment or real estate. While this has offered crucially important theoretical advances, the

result is a black boxing of real estate within the nexus. As put forward in the introduction, this thesis attends to the impacts of finance on the built environment (the principal concern of chapter 3), but likewise it is also interested in how they cause transformations within real estate that then speak back to finance (Chapter 4). As such, it is interested in the 'recursive' process of financialization (see Ashton et al. 2015). This means attending to the materiality of real estate as codified in its property relations, and in a sense (re)centering our analysis of real estate within the real estate financial nexus.

The second point of intervention concerns my own theoretical approach to the 'real estate financial nexus'. I started this typological analysis by referring to each of these three approaches as representative of three intellectual currents, rather than distinct literatures. This was intentional. First, scholars are not divided quite so neatly between different approaches. For example Gotham (2009) largely deploys a Marxian framework but supplements this with an institutional analysis, eschewing a strong form of capital logic and rendering financialization multiple and contested by ad-hoc regulatory action. Second, there is a need to consider the interlinkages between these different approaches. For example, David and Halbert (2014) argue that the calculative agencies of international financial actors cannot be reduced to the value maximization principal at the heart of "property as a pure financial asset", distancing themselves from such an analysis. Yet, Christophers (2015:189) demonstrates their understanding of the financialization of business property as "the increasingly prevalent ownership of commercial buildings by financial institutions" (David and Halbert 2014:517) rests squarely on the notion that "ownership is deemed material precisely in view of its implications for the calculative treatment (as 'financial') of the buildings in question, even if 'pure' financial logics must always in practice contend with 'a different "hybrid collective of actors and instruments". One could

seemingly argue that in the 'last instance' David and Halbert's work necessarily overlaps with Harvey's concept of property as a 'pure financial asset'. Similarly, Guironnet et al. (2015:4) argue that "although Weber does not claim to draw primarily on Harvey's argument, her work nonetheless illustrates how city governments adopt the 'increasing tendency to treat land as a financial asset'". In another instance one could argue that Weber (2010) documents the ways in which cities obtain calculative agencies to act as financial actors, while Kaika and Ruggiero (2013) document how calculative techniques of firms are implicated in land financialization. Accordingly, both suggest possible linkages to cultural economy approaches.

What all of this is demonstrating is twofold. First, there is the *potential* for a more 'holistic' approach to urban financialization that avoids the potential fragmentation portended by this typology. In fact, Christophers (2013) argues that Marxist political economy is made stronger through a dialogue with cultural economy approaches, particularly on the issue of calculation, of which Marx said little. Second, I argue that this is necessary if we are to grapple with the role of the real-estate financial complex at the heart of interdependent urbanization and financialization processes. Such a holistic approach offers a theoretical space between the empirical, quotidian geographies of financial calculative practice and the meta-theoretical role of financialization as a spatial-temporal fix to the crises tendencies of capitalism. To do this, I draw on the intellectual impulse of financial ecologies (see Leyshon et al. 2004; Fench et al. 2011) but adapt it for my uses in Singapore. The financial ecology perspective argues that like all systems the financial system is made up of smaller, constitutive ecologies. By ascribing ecological properties to social arrangements the financial ecologies approach shifts away from the traditional systemic approaches to illustrate that "systems are in effect made up of numerous interrelated technological and informational ecologies" (French et al 2011:812). An ecology

names a social structure that is less unified than a machine or organism but is more unified than a social world made up of autonomous, atomic beings of classical liberalism (Abbott 2005: 248). For example, French et al. (2011) break the reproduction of the financial system (in the most recent crisis) down into distinct ecologies. They argue that residential spaces represent an important ecology within the global financial system, which can be broken down further still. The financial system depends upon the reproduction of the middle-class ecology which accounts for the large share of investable assets (savings), while another much smaller ecology of subprime managed to bring the "financial system to its knees" (French et al. 2011:813). Had a crisis emerged in the *prime* market it would have been catastrophic. By fragmenting systems to their constituent financial ecologies it becomes possible to identify points of leverage and intervention. Not only is the S-REIT a particular financial ecology of the 'Singaporean' and 'global' financial markets, but it too consists of material spaces that function to fuel its growth, including the material property relations of retail commercial spaces as its own ecology in need of unpacking. This brings me to my final point of intervention: identifying the centrality of the concept of 'property as a pure financial asset' as a strategic starting point for opening up the real estate black box. This supports my attempt to (re)center real estate in the real estate financial nexus. Furthermore, taking the holistic understanding of financialization seriously allows us to consider how the treatment of 'property as a pure financial asset' constitutes a range of overlapping and interrelated ecologies of capital, calculation, culture and state practice. Such an approach is consequential to the understanding of financialization's spatiality.

This study continues to develop further a theorization of the interdependencies of financialization and urbanization, but does so principally using an empirically informed study to

identify such processes 'on the ground'. In the empirical case to follow (Chapters 3 and 4) the Singaporean REIT market displays both aspects of my simplified definition (above), but also points increasingly towards a critical entry point—in a theorization of property relations—for the spatial study of financialization, particularly as a set of material urban processes. What follows are some preliminary arguments which establish the context for the next chapters.

2.3 Property lost?

In the analysis presented above I offered two interventions: 1) the centering of 'real estate' and 2) the use of the concept of "property as pure financial asset" (Harvey 1982) as the starting point in an analysis of the real estate financial nexus (as constituted in the Singaporean REIT market). At the core of both of these interventions is the intent to consider the role of property—as an economic and material entity—in the interdependency of urbanization and financialization. For example, O'Neill (2013) argues that it is the peculiar property relations infrastructure requires (and have been obtained) which gives rise to the 'financialization of infrastructure'. Despite being a thoroughly geographical concept, the theorization of property, as suggested by Blomley (2005) and Christophers (2010), has largely disappeared from contemporary geography. And despite repeated calls to action for a revival of research in the vein of property and the built form (Blomley 2005; Gotham 2006; Christophers 2010; Lizieri and Pain 2014), to say that that these have been fully heeded would be generous. Outside of a recent special issue of Regional Studies 48(3) (2014) focused on business property investment and rote redeployments of 'property as a pure financial asset' (see 2.1.2 above) there has been little sustained debate, much less the "vivid theoretical debate" described by Jäger (2003:235) from the 1970s to the 1980s.

Blomley (2005; 2010) has critically intervened to suggest that we need to attend to the politics of property, specifically the ways in which private property has become a normative organizing feature of contemporary society and its ethical implications. He has argued for attention to the ways property and property finance discourses come into being and are put to work (Christophers 2010:95; Blomley and Sturgeon 2009). More fundamentally, Blomley and Sturgeon (2009:565) question the conceptual state of property, by suggesting that there is no (one) 'thing' that is property: it "should not be thought of as an inert or static set of market relations or abstract jural rights, but as a lively set of lived enactments, dependent on a continual 'doing', that is at once practical, symbolic and institutional." Here property is rendered an empirical question, rather than a theoretical one. Further it reminds scholars to attend to how property is defined and why it is being defined in that way. Blomley's work can be seen as a questioning of the being of property and the normative hold particular enactments of property have on social, political, and economic ways of life. For the most part these fundamental questions are beyond the scope of the thesis, but the provocation does suggest that a slightly different reading of Christophers' development of Harvey's conceptualization of property is in order (more below).

Christophers (2010) notes Blomley's own theoretical blind spot to the 'economics' of property. Arguably he picks up where the 'vivid theoretical debate' left off (see Haila 1988; Coakley 1994) with an analysis of property's 'place' in the dynamics of value creation in contemporary capitalism. Defining property as "land and any buildings that sit on it" (Christophers 2010:96), he argues, following Harvey (among others), that "property, while offering obvious use values, and while being necessary for wealth creation to take place, was not and could not itself be a source of value per se" (ibid:97, emphasis added). The 'place' for

property at best was a coordinating function (Harvey 1982). Yet, when the treatment of property 'strictly on financial grounds' (Christophers 2010:98) occurs, that is for the money that can be made from it (rent) and not its use by all owners, then it is financialized. For contemporary evidence he turns to the economist Hernando de Soto and the financier Robert Tchenguiz who argue (specifically contravening Marx in de Soto's case), that if only one could separate property from its uses then the value that is trapped could be captured; hence the latter's support for giving titled property rights to the poor and the former's proposal to split the retail operations of Salisbury into separate retail and property entities. Going beyond Harvey, Christopher's contribution to the analysis of this capitalist 'tendency' is to suggest that this financialization is only possible by the 'representational mystification' that "Property [...] is posited as being capable of being treated as a financial asset by the discourse that separates it from its value-inuse" (*ibid*: 103). This is precisely what allows (or enables) actors/owners to view property—less a material or physical thing and more a legal entity— as a 'trap' for value which is in subsequent need of release. This is so despite the obvious 'economic' limits to its realization; the principal limit being that property can never be merely a financial asset for all users in the end. In this regard, Christophers disagrees with Harvey that this process, though certainly happening, is inevitable.

But what 'value' and how to release it? Christophers argues that the 'value' spoken of by de Soto and Tchenquiz (as exmplars), is precisely capital in the Marxian sense, as "value-in-process" or circulation, once set free to roam. In the financial world this is understood as liquidity (*ibid*:100). For Christophers, the impossible task of 'unlocking value' or producing liquidity from property is effected through the assemblage of various credit mechanisms and the 'representational mystification' (above). In our case, the REIT manager is responsible for this

realization. They are charged with producing and growing this liquidity by continually making the illiquid—property—liquid (see Gotham 2006; Ch. 1 of this thesis.). This brings me back to Blomley and Sturgeon's (2009) understanding of property as a continual doing. The treatment of 'property as a pure financial asset' (which, despite its limitations has progressed as Christophers argues,) is doing of property differently, and that this has 'lived' or material enactments. ²¹ Haila (1988:97) concluded her study of 'land as a financial asset' with two material transformations of property. The first was the "tendency to more frequent alterations in the use of space. The second was the "tendency to increasing displacement of use values and the development of an abstract space [...] for hypothetical tenants". In fact, these have also been identified in the most recent studies of property financialization (Halbert et al. 2014). However, might it be possible to view these transformations not merely as consequences but examples of 'doing' property as a financial asset? O'Neill (2013) demonstrates that often property requires taking 'physical measures' which transform its underlying relations to protect its yields for investors, such protection being necessary (and desirable) to make (infrastructure) property 'liquid'. Thus, I hypothesize that if the financialization of property (as embodied in the REIT market) is to mean anything it is in the notion that in order to become a financial asset property must be *made* 'liquid'²², and that it is the performing of liquidity that gives rise to the material transformations evidenced. As such, property as a "pure financial asset" has a (physical) material production that is not incidental but vital to its (re)production. Or in other words, drawing on the language of de Goede (2005:7), the manipulations of property enroll it into "performative practices, [that are] articulated and

²¹ It also stands to reason that the simplistic definition of property as 'land and the buildings on it' is not conducive to explicating the full role property has in capitalist economies, but this critique will not be further explored in this thesis.

That is given a price and bought and sold (easily and frequently). None of this is to say that property itself *is* actually turned into a liquid asset, such as cash. After all, no matter how hard you try, you cannot move land; you cannot substitute it directly for another. But nonetheless, actors (such as REIT managers) do manipulate it such that it *appears* to be more liquid, changing its material characteristics, and their meanings. It is made liquid by the assemblage of credit and, I argue, material transformations.

rearticulated on a daily basis" in the service of materializing finance (or financial liquidity).

Capital might have tendencies, but these must be performed. Further this produces urban space in a particular fashion. The central question (for Chapter 3) is, how do REIT managers make property more financial; make it more liquid (as is necessary to sustain the REIT market)?

2.3.1 Performing liquidity: enrolling property into 'market devices'?

The notion of performativity draws attention to the understanding that the economy is not a naturalized external existence to market actors but rather is made by market actors; tools and ideas of market actors do not just describe a pre-existing reality, but bring it into being. Largely focused on the production of economic knowledge about the world, performativity has been deployed to understand how 'economists make markets' (MacKenzie et al. 2008), drawing principally from Michael Callon's (1998:30, 2) provocations that, "the economy is not embedded in society but in economics" and "that economics, in the broad sense of the term, performs, shapes and formats the economy, rather than observing how it functions". Thus, when Christophers (2010) argues that the treatment of property is enabled by the 'representational mystification' that separates it from its value in use, one might say that he is illustrating the abilities of 'economists in the wild', 23 to (Callon et al. 2007:341), separate property from its sociality (to which use values are informed) such that it can be brought into market calculation. It is, however, worth noting a critical point of critique leveled against Callon's performativity by Miller (1998, 2002). He argues that Callon's emphasis on disentangling the economic from society masks what he sees as politicians choosing to prioritize 'economic' qualities and certain economic frames of the world. In large part, it is because of the fact that economists have gained such political power in the prevailing political economy; they can transform the world in their

²³ Christophers actually illustrates both 'confined economists' (academic economists) and 'economists in the wild' (vernacular, practitioners) in deploying this discursive separation.

own image. They can "make a particular style of market stick" (Smith et al. 2006:89). What Susan Smith et al. (2006:95) remind us is that these perspectives are "two sides of the same coin" such that the performance of economics (and its calculative socio-technical processes) is set to bring a certain political (economy) project of capitalism into formation. And with the growth of the political power of finance it is a particular subset of economic ideas, from financial economics, that seems to be increasingly prioritized. As MacKenzie suggests (2009:179), "yes, global imbalances and the influence of neoliberal ideas matter" but so too do the sociotechnical details. The suggestion for dialogue is therefore critical, but in practice its realization is difficult. Christophers, for his part, agrees with such an objective, recognizing (see section 2.2) that at least for the financialization of property in contemporary capitalism it is not guaranteed but a tendency that must be performed. Performativity then can be an effective methodological tool for understanding how capitalism *becomes* a systemic process through collective everyday practice. For these practices are often constituted by a normatively ideal political economy of market exchange, one that is not natural but had through political choice has been made to stick (The debate between Callon and Miller highlights the need to recognize the differing ecologies of knowledge and practice that constitute capitalism.)

Donald MacKenzie has been one of leading scholars in connecting these arguments relating to the (generic)²⁴ performativity of economics to practices in financial markets. In particular, his work has brought attention to those 'sociotechnical details' that matter. In *An Engine, Not a Camera* (2006), MacKenzie's seminal contribution on the topic, he draws out the role of particular financial models—namely the Black-Scholes-Merton options trading model²⁵

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²⁴ Generic performativity, most associated with Callon, is quite simply that an aspect of economics (a theory, model, concept, producedure, data-set, etc.) is used by participants in economic processes (MacKenzie 2006).

²⁵ An 'option' is a contract that gives the right, but not the obligation to buy or to sell a set amount of a given asset at a set price on or up to a future date.

—in not representing the world (as its creators devised), but bringing the world into being. It is worth drawing out this example with a bit detail. First the Black-Scholes-Merton model is used to price the trade of options (a derivative of a stock). The mathematical specifics are not crucial, but the models central assumptions are vital to its performativity. First the model assumes an efficient market, which means that asset prices (options in this case) fully reflect all available information, and any new information is 'random'. Second trades can be performed in such a way that they are 'riskless' through hedging. ²⁶ The output of the Black-Scholes-Merton model is the 'ideal' or 'efficient' price at which a trade should be performed. The early development of the model is intimately connected to the Chicago Mercantile Exchange, which was trying to legitimize options trading once considered gambling by the Securities and Exchange Commission. The model helped to legitimate the practice by providing a theoretical basis for it. However, into the mid-1970s the model only approximated reality. In fact, early on some traders baulked at some of its central assumptions and would criticize their fellow traders using Black's prediction sheets (distributed on the trading floor). However, over time the model comes to gain acceptance, particularly as index trading develops. Traders, even when they disagree with the model, are disciplined to use it. The model's 'world' achieves verisimilitude legitimating and promoting 'efficient,' liquid options exchanges and helps banks trade as if they had zero transaction costs by the mid-1980s. Through the performance of the model, reality adjusts to fit the model. MacKenzie describes this type of performance as Barnesian performativity. In 1987, a financial crisis causes reality to deviate systematically from the model (which continues to today). This, Mackenzie speculates, might be an example of counter performativity where the use of a model causes the world to diverge from the model. MacKenzie et al.'s (2008) work

²⁶ Hedging is the process to protect oneself against loss (a bet or investment) by making a balancing or compensating transaction.

illustrates the importance of ideas, but also material 'things' or devices (i.e. Black's prediction sheets) in enacting those ideas or models, in enacting their performance.

Of course, like MacKenzie, our concern is not as grand as the whole of capitalism, but instead focused on the production, or rather performance of (market) liquidity by REIT managers. Carruthers and Stinchcombe (1999:353) state that:

"By liquidity of a market, economists mean that standardized products can be bought and sold continuously at a price that everyone in the market can know, and that products are not normally sold at a price that diverges substantially from the market price. The idea is that everyone can know at all times what the price is, and only one price obtains in the market."

However, exactly what this means is often debated, being variously referred to in quantitative terms as a volume of circulating capital or in qualitative terms to indicate 'deep' markets in standardized assets with many buyers and sellers whose exchange activities do not cause price disruption (Langley 2010). Healthy markets are thus presumed to be liquid ones. The provocation that liquidity might be performative is not new. Paul Langley (2010) has brilliantly illuminated this in his analysis of liquidity in sub-prime financial markets. Representations such as the 'giant pool of money' flowing about the global financial system "filled apparently liquid markets with meaning, creating a context for action in which markets were expected to operate in a particular way" (*ibid*:78). In other words he demonstrates that "liquid markets became knowable and a known thing or object that was regarded by investors as independent and external to them" (*ibid*). Once they had become such a thing, they developed a 'life of their own' in setting and moving prices, and exchange. That is in making 'utterances' that markets are liquid, actors bring such liquidity into the world. From here he illustrates the myriad of practices, including discursive and calculative market devices (i.e. credit ratings practices, structured finance risk calculations, automated underwriting, etc.), deployed to materialize liquid markets assumed to exist in subprime asset classes. Therefore as Langley (2010:84) writes, the

"performative utterance of liquidity enacted what it named", but critically also contained its other, illiquidity. In part this type of arrangement mirrors MacKenzie's definition of Barnesian performativity, however Langley departs from MacKenzie in arguing that performativity does not rest on producing empirical validity (that is its conformance to the real world) but instead on 'precision' (an iterative effect). The reception of financial models by actors is power laden. In his case this is the power to reify liquidity's 'scientific validity'/precision.²⁷ He cites de Goede (2005) for her insistence on iterative practice and the normalization of financial power.

Furthermore the inclusion of its other (illiquidity) complicates narrative of Barnesian performativity. It is perhaps better to say that Langley illustrates the 'effective' performativity of liquidity.²⁸The efforts to slice and dice sub-prime assets to standardize and qualify them for investors' portfolios were intended to enhance their liquidity, but it reified their illiquidity as well resulting in the crisis once the risk assumptions did not hold.

Langley (2010) has provided a rich analysis of the performative function of liquidity, revealing how the concept and discourse came to shape and frame economic action in the subprime crisis and wider financial markets. However, as with Smith et al.'s (2006) analysis of performativity in housing markets, there has not been a concern for the 'physical materiality' of properties of which these markets are ultimately built upon. Instead it is an analysis of the role 'up-stream' financial engineering and its socio-materiality plays in the subprime market. In part, this is understandable due to the nature of integration created between the physical property and the subprime asset, which unlike the REIT does not retain a close (active) management of the physical property in the hands of a financial actor (the homeowner remains the direct manager

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²⁷ In the introduction to Chapter 3, this power to reify liquidity is evidence in the hands of investors, bank analysts, and the state. While REIT managers must perform to it.

²⁸ Effective performativity is defined by MacKenzie (2006) as the practical use of an aspect of economics that has an effect. What that effect is, is contingent.

unless they face difficulties). Yet, if we are to take seriously the real estate-financial nexus as implicating the material spaces of our cities, we must also take the physical materiality of property into account when interrogating the performance of liquidity. This is even truer if we are to make the claim that the financialization of property is increasingly at work, for the financial concept of liquidity is increasingly being applied in such spaces as well. Additionally, it is odd that property has been overlooked considering the wide variety of market devices—referring to material and discursive assemblages that intervene in markets—that have been considered from stock tickers to shopping carts (Muniesa et al. 2007). Paying attention to how the physical materiality of property gets enrolled into such financial assemblages works to prevent the politically disabling discourses that reify finance's immateriality or distance from the physical world. Finally, the category of performativity opens access to the "set of socio-spatial property relations in which owners of land and owners of money are able to shape the microeconomies of cites" (Moreno 2014:257, italics in original). The question then is what kind of urbanization does this construct? What is the effect of these performances of liquidity (Ch. 4)?

2.4 Spectacle urbanism and financialization: a common collapse starts a dialogue

"The spectacle is *capital* accumulated to point where it becomes image."—Guy Debord (1994 [1967] thesis 34, italics in original)

"...today art, architecture and culture emerge as an *operative* rather than a merely ornamental feature of financial capital."—Louis Moreno (2014:263-264, italics in original)

Spectacle urbanism has been an often cited phenomenon since the late 1980s and early 1990s, particularly in relation to the rise of the post-modern 'experience economy' or consumer capitalism (see Harvey 1989; Olds and Ley 1988; Pinder 2000; Swyngedouw 2002; Chu and Sanyal 2015). Yet, for some scholars the allure of the term is outweighed by its overuse and loss of explanatory purchase (see Crary 1989; Mitchell 2008). In part this is a result of the evocative force with which Guy Debord, in *Society of the Spectacle*, made his critique, offering a view of

the spectacle characterized as a *totality*, having "effectively conquered all aspects of the quotidian" (Woodworth 2015:414). The spectacle for Guy Debord (1994[1967]: thesis 42), is the "historical moment at which the commodity completes its colonization of social life. [...]

Commodities are all that there is to see; the world we see is the world of the commodity". And as Gotham and Krier (2008:167) argue "represents the annihilation of use-value by exchange value." In recent years, specifically Guy Debord's theorization of the concept of the 'spectacle' as a *social relation* increasingly mediated by the image (art, architecture, and cultural production that correspond to the abstract representations of the commodity) has reappeared with a renewed intensity, particularly in light of what Chu and Sanyal (2015:399) describe as the arrival of a new stage of 'spectacular urbanism' with new forms of seduction and domination. The spectacle production of urban space takes its form as:

"dominated increasingly by images and events that reduce the novelty and potential spontaneity of urban life to set-piece, homogenised, corporatised spaces that carefully package the 'experience of urban diversity, to be consumed without danger, and with limited risk of contact with social difference'" (Jones and Sanyal 2015:2 citing Stevens and Dovey, 2004:359).

And yet, there is little made of what might be ushering in such a 'new' stage of urban spectacle, preoccupied, as most studies are, with the politics of urban contestation which arise out of the contradictions and instabilities that the spectacle generates (Gotham 2005, 2011; Gotham and Krier 2008; Shin 2012; Woodworth 2015).

Consider the title quote at the beginning of this section. Woodworth (2015) surmises that this collapses the distinctions between production and consumption into a unified collective spectatorship of an ever passing conveyor belt of seductive and distracting images. These 'images' result from the proliferation of mass media, marketing, art, and architecture (etc.) which distract individuals from the commodification of nearly everything. But It should be emphasized that spectacle is *not* merely the images, but rather a social relation between people mediated by

images. Debord (1994 [1967]: thesis 17) argued that in a consumer society social life is not about living, but having. The spectacle uses the images to convey what people need and must have, a state which further proceeds to the state of 'appearing': the appearance of the image. While, financialization could be posited as the accumulation of capital to the point that it becomes merely money (i.e. ficticious capital). And likewise, arguably financialization too collapses the substantive distinctions between production and consumption into spaces of unified collective appropriation of profits (money) (cf. Aalbers 2008; Moreno 2014). Financialization is also often rendered as the triumph of exchange value over use value, acting as it does as a way to enact space-time compression to shorten the time horizons to value realization. Moreover, Debord (1994[1967], thesis 49, italics added) makes a compelling connection:

"The spectacle is another facet of money, which is the abstract general equivalent of all commodities. But whereas money in its familiar form has dominated society as the representation of universal equivalence, that is, of the exchangeability of diverse goods whose uses are not otherwise compatible, the spectacle in its full development is money's modern aspect; in the spectacle the totality of the commodity world is visible in one piece, as the general equivalent of whatever society as a whole can be and do. The spectacle is money for contemplation only, for here the totality of use has already been bartered for the totality of abstract representation.

The parallel reading of the spectacle and financialization not only offers a compelling organic set of interactions between the two, but also suggests that Debord's notion of the spectacle *anticipates* processes of financialization; whereby commodities become viewed for the money (the image) that they produce rather than for their use. Such an assessment renders it little surprise that the rise of financialization has also coincided with the theoretical interest in the capitalist exploitation of the cultural production of places (Moreno 2014). This opens the door to the need for a productive dialogue intended to make explicit the connections between financialization and the spectacle as Debord saw it.

Relevant to this thesis, Debord was particularly concerned with the negative consequences of the development of shopping malls which sprung out of mass consumption. The

shopping mall, the most standard property typology for a retail REIT (see Ch. 3.4), is often an exemplar space of the spectacle (Crawford 1992; Debord 1994 [1967]; Gotham 2005; Elsheshtawy 2010; Jones and Sanyal 2015) because it is a 'world' of commodification that is plastered over by seductive images (corporate marketing, spectacular architectural design, etc.) which elicit the demand to consume. Or at least that is its design. Beyond being a 'world' of commodification, the shopping mall fulfills the notion of the 'Debordian spectacle' in another way. The spectacle is not just the outgrowth of the total colonization of life by the commodity, a reality deeply connected to the apparatus of contemporary capitalism, but it is also an ideology. It is an ideology "derived from the material social conditions, which distorts reality and cloaks the exploitative conditions of capitalism in a mélange of images and signs" (Gotham and Krier 2008:169). The shopping mall constitutes an ideology in as much as it is a space in which individuals become spectators forced to observe the images that others (Mall owners) create—the ideology of consumerism.

Placed under financialized REIT control, the retail spaces of Singapore (its shopping malls) are treated as spaces of merely cash-flow or money (the most 'pure' of financial assets). This is the apex of the spectacle; money (universal image) represents all commodities (Debord 1994[1967], thesis 49). REIT managers put this ideology (spectacle) to work. The journey to this end entails rounds of ever more spectacular spectacles by the REIT manager, their subsequent commodification (see Gotham 2005 on commodified spectacles), and further spectacle. This creates a turbulent production of urban space between novelty (new images) and homogeneity (abstracted REIT mall). A more substantive theoretical and empirical discussion of this interaction takes place in Chapter 4, as it concerns the *effects* (posited as an accelerating spectacle) of the material transformations linked to the performance of liquidity.

2.5 The making of finance's spectacle the REIT way?

At an empirical level this thesis quite simply seeks to understand the impacts of the real estate investment trust market has had on urban spaces in Singapore. Doing so has offered the opportunity to engage with the interrelated issues of financialization, urbanization, property, and the spectacle. All too often financialization is rendered as a universalizing condition. But this review has revealed not only the importance of viewing financialization as an 'inherently spatial phenomenon" (French et al. 2011) having unfolded across space in variegated ways, but identified the urban as a *strategic* starting point for analysis of the constitutive (or operative) role of space. This is built on the view that contemporary modes of capital accumulation are increasingly of the urban kind (i.e. planetary urbanism²⁹) and opened up the theoretical possibilities presented by *urbanizing* financialization. From there, the review narrowed in on specific interventions in the literature to which this particular study intends to contribute. The most important of these is an engagement with property. Recognizing the reality that urban financialization constitutes multiple ecologies of capital, calculation, and state practice, I argued that Harvey's Marxian notion of "property as a pure financial asset" could be critically interrogated using the notion of performativity—extending the analysis to a concern for the 'physical materiality' of property (oddly ignored). And finally, so as to not limit our understanding to the financialization of urban space, I presented the literature on the urban spectacle as a way of thinking how urban space might work back on financialization. Thus, the following two chapters track the making of finance's spectacle the REIT way.

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²⁹ Brenner and Schmid (2011:13): They write the "situation of planetary urbanisation means, paradoxically, that even spaces that lie well beyond the traditional city cores and suburban peripheries—from transoceanic shipping lanes, transcontinental highway and railway networks, and worldwide communications infrastructures to alpine and coastal tourist enclaves, "nature" parks, offshore financial centres, agro-industrial catchment zones and erstwhile "natural" spaces such as the world's oceans, deserts, jungles, mountain ranges, tundra, and atmosphere—have become integral parts of the worldwide urban fabric. Drawing on Henri Lefebvre they argue that today we have reached what Lefebvre described 40 years ago as the "complete urbanization of society"; a historical moment which requires profound changes in the way we theorize such processes as capitalism. A shift from form to process.

Chapter 3: Performing liquidity: the materiality of transforming property into a 'pure financial asset' in Singapore

3.1 Introduction: S-REIT as 'property in liquid form'³⁰

As identified in Chapters 1 and 2, the principal concern for the REIT manager, as an active manager, is to 'unlock value' which is described as trapped in the controlled properties. This value can be termed colloquially as 'exchange value' but perhaps more accurately as 'valuein-circulation', which is known by financial actors as liquidity (Christophers 2010, see Ch. 2.3-2.3.1). Liquidity is defined as a condition of a market by which standardized products can be traded at an acceptable price easily and frequently (Carruthers and Stinchcombe 1999; Chapter 2.3.1). Usually when a market becomes 'illiquid' it disappears, liquidity is generally conceived by market actors along a gradient of 'depth'. Generally, the higher the 'depth' of liquidity, the better a market is for financial actors.³¹ It describes the process by which 'products' are made to circulate. In our case this 'product' is the share in a REIT. The process by which this liquidity is 'unlocked' from property (that is the share made 'real') is enacted, as Christophers (2010) describes, by the assemblage of a credit mechanism and the representational mystification that property can be disentangled from its value-in-use as a physical object. In other words, the discursive separation of property from its value-in-use enables the use of a credit mechanism (either debt or equity offerings) necessary to transform the property into circulating capital, a flow of shares and cash (cash being the most 'liquid' of all assets). Such language of 'unlocking value' is peppered judiciously throughout the annual reports and promotional materials for REITs. It is worth reiterating that the REIT cycle of 'unlocking value' begins with the trust manager's purchase of properties from the sponsor, often a developer, who takes the cash

³⁰ See section 1.2.

³¹ There is reason to believe that actually less liquidity in securities markets, even large ones, is a good thing if it indicates financial actors are holding investments for a longer period of time (Sandbu 2015).

proceeds to continue their own business development. The manager makes the purchase by borrowing from a combination of bank lending and debt offered as equity shares in an initial public offering to institutional and retail investors. These investors in return receive a dividend yield on the basis of the rental income from the property. These shares are then tradable in the secondary market, like any other stock/security. It is then the REIT manager's role to manage the properties to the benefit of the unitholders, increasing the rental yields and asset valuations. A share or unit turns the property into a 'tradable income-yielding asset' (Guironnet and Halbert 2014). By making it easy for investors to get in and out of 'real estate' quickly, the making of real estate as 'liquid' enables financial investors, as the new landlords, to treat property as a "pure financial asset" (Harvey 1982). When this is accomplished the value is said to be 'unlocked' in the form of circulating capital.

In the fine print on the last page of the annual report for Starhill Global REIT a disclosure statement reads, "It is intended that unitholders [shareholders] of Starhill Global REIT may only deal in their Units [Shares] through trading on the SGX-ST [Singapore Stock Exchange]. Listing of the Units on SGX-ST does not guarantee a liquid market for the Units" (Starhill Global REIT Annual Report 2013:131, emphasis added). Being liquid would mean that the shares of the REIT could be easily traded. The REIT market's promoters argue that the REIT functions as a way of making property into a liquid form (SIAS, accessed 26 May 2015). The state, likewise, views the REIT market as playing a chief role in producing secondary market liquidity (Singapore Budget 2005). From these accounts it is nearly unthinkable to various actors that the S-REIT market would be anything less than liquid, like any other 'well-functioning' (or 'natural') market, but as argued by Langley (2010) liquidity always includes its other: illiquidity. That is utterances of liquidity always reference the specter of illiquidity (i.e. that the REIT shares would not be

tradeable). The warning is an expression of that reality. Much like in Langley's (2010) analysis of the way in which liquidity came to frame and pattern the responses to the subprime crisis, liquidity came to frame the rise and normalization of the REIT market in Singapore. As one analyst put it, "It is on the basis of this sheer liquidity that Singapore becomes a [REIT] market you cannot ignore" (Interview 1, bank analyst). Engelen and Koinings (2010) have argued that liquidity is perhaps the main objective of a financializing economy, and can be read as the objective of treating property as a financial asset. It is also the driving metric of success for a REIT manager, often incorporated as a key performance indicator (KPI). As one interviewee suggested, "It is about market cap and liquidity. With size [market cap] comes liquidity" (7, CEO, REIT manager). In this statement the REIT manager is iterating how important it is for the success of a REIT to be liquid and that that liquidity comes from a high valuation which attracts investor interest. This also hints at the importance of factors outside of price and trade volume that contribute to liquidity, because market capitalization itself is dependent upon a variety of factors which relate back to the underlying (material) features of the asset. Another, drawing from the investor perspective, argued:

"For institutional investors...[i.e.] Many companies usually have excess funds available for management [...] like Microsoft, Google, Barclays, etc....[They invest] based on the need for liquidity, not so much on return" (10, REIT marketer). 32

So how is a liquid market (liquidity) in REIT shares made into reality if the ability to trade shares in the REIT on the stock exchange alone is not enough as suggested by the disclosure statement? In part this is a project of persuasion. REIT managers attempt to persuade other actors to help them make the REIT's investments in property 'legible'—that is knowable and standardized—to financial investors (Gotham 2006, 2009; Crosby and Henneberry 2015). One such actor in need of persuasion might be a financial analyst at a bank or brokerage firm.

³² Institutional investors (i.e. pension funds, large companies, etc.) are the primary investors in REIT markets.

Analysts are individuals who publish buy or sell decisions on a variety of securities (including REITs) as well as provide calculative expertise regarding particular investments to an investor or broker. They provide an informational conduit between REIT managers and potential investors. As one REIT manager noted (Interview 7, CEO), the liquidity of a REIT's shares is partly dependent upon (financial) analyst coverage. It is dependent upon getting them to publish research on a particular REIT. Through their work they create 'visibility' and potentially bring more investors to the table. Often times without analyst coverage investors are restricted from investing in a particular REIT, giving analysts great agency in producing a liquid market (Interview 2, REIT analyst; Interview 10, REIT marketer). Financial analysts then are critical to making particular REIT investments legible and subsequently liquid. Convincing an analyst to cover a REIT is one of the principal activities of a REIT manager (another KPI) as it enables a wider net of potential investors willing to make more trades (increasing volume and 'depth'), and in turn makes the REIT—and its portfolio of properties—look more attractive, more liquid (Interview 7, REIT manager CEO).

This exposes the sociality of liquidity (Carruthers and Stinchcombe 1999). But for REIT managers this is not merely social, but also technical—the result of calculative practice. One REIT manager CEO (Interview 7) expressed his frustrations with having to meet with analysts (he had just met with one and was meeting another after our meeting), suggesting that it was often fruitless as they would only agree to cover a REIT if its market capitalization (value of total outstanding shares) was high enough. In Singapore the threshold for coverage is generally to have a portfolio valuation and/or market capitalization of SGD 1 billion. With many REIT IPOs just barely over that figure, it is not a hard and fast rule. As such liquidity was also rendered as an object beyond the REIT manager's direct control. This duel enactment of liquidity

as something out there and knowable, while also being a product of social, spatial (as I will demonstrate), and technical practices establishes the arrangement of its performance. For example analysts will only cover 'liquid REITs', but in covering a REIT the analyst enacts that liquidity (by bringing more investors to the table). As Langley (2010:73) argues the "performance of liquidity [...] turned on the affirmation and exemplification of wider norms of liquidity" and specific calculative practices to enact what it named. What is evident is that norms of 'market liquidity' become the lens through which the property management practices of the REIT manager are filtered and operationalized. Utterances of liquidity always include its other, illiquidity (Langley 2010). That it *might* not exist (say in crisis), as the warning reveals, is often the motivation for bringing liquidity into existence or enactment. Moreover, the liquidity of the REIT shares is often predicated upon the sense that the property, to which these shares lay an income claim, can be made liquid on the basis of its physical characteristics (materiality). That is these physical characteristics will result in metrics which favorably enhance the share price to the point that investors moving in and out not only increases but does not cause significant price disruption. This chapter attempts to demonstrate this. A liquid share does not merely represent a property, but puts into place a set of relations (between REIT managers and property users) which come to frame the physicality of property. In this setting the specific (and material) property management practices of the REIT enable it to perform the very liquidity it seeks to obtain/unlock. This is not a one-off event (at the time of IPO), but must be sustained in iterative practices in order to ensure the continued (increasing) liquidity of the share:³³ "[The REIT manager] spends day and night sleeping on it, thinking about it, and dreaming about it" (Interview 4, CEO, REIT manager). Arguably, liquidity then is not merely an outcome of the

³³ While yield (returns) has not been the focus of my attention, liquidity of the share is inextricably linked to rental returns.

socio-materiality and discourse of finance, but also enacted in finance's transforming of the physical materiality of property. It has physical form. Stated another way the performance of liquidity, required to treat property as a financial asset, materially (re)produces space as property anew or transformed. Financial instruments such as REITs (with tradable shares) might be intended to create liquidity out of the spatial fixity of property as Gotham (2009) argues, but the contours of that fixity are pulled, prodded, and stretched to their limits, not left immutable or immobile. In other words, while certainly property cannot be move, dirt and all, it can be reconfigured to become more 'finacnial'. This is demonstrated in the second half of the chapter (from section 3.3 on).

3.2 The calculative matrix of S-REIT liquidity: centering property

Central to the performativity of liquidity is its calculability or rather more accurately its place 'holding together' a matrix of calculative spaces and practices deployed to render the unique (concrete) characteristics of the properties in a REIT portfolio legible (abstract, thus transferrable (either delegated or literally)) to financial actors. As the above interview selections demonstrate, liquidity is vital to the functioning of the REIT market for its various actors, yet being multiply defined—as a quantitative value (volume of trades) or a qualitative assessment of depth (Langley 2010)—it can be an elusive social force. It is also commonly used to refer to a general effect of markets, but liquidity can refer to specific 'things' constitutive of a particular market as well—that a said 'thing' (a company or a property for example) itself might be liquid (or not). This refers to the potential a 'thing' has for ensuring that its shares (or the shares it underlies) can be liquid. Often this makes reference to the material qualities of an asset. For example David and Halber (2014:522) writing about transnational financial investors (TFI) in Mexico City metropolitan region (MCMR) provide an example:

"...from a TFI perspective a 'liquid' asset is rather difficult to find in the MCMR. With the exception of a few landmark projects, buildings that comply with the standard 'international' technical specifications expected by non-domestic funds (so called class-A buildings) are relatively scarce..."

REIT managers often switch back and forth between such uses as they are mutually reinforcing. Liquid properties are necessary to make a liquid market, but a liquid market can certainly make properties *more* likely to be liquid. Further, as is the case with the REIT market, liquidity can be found unnamed, hiding in the background under the discourse of 'unlocking value' (see Christophers 2010). In fact, if one were to attempt to understand the role of liquidity in Singaporean REITs only through a textual analysis of their self-published materials (i.e. IPO Prospectuses, Annual Reports, and websites) one would be hard-pressed to find much of an apparent influence. In Annual Reports the term liquidity only appears under the brief, albeit important, 'Risk Management' section. Despite its lacking presence, this highlights the fact that the principal concern for REIT managers is the 'risk' that liquidity might 'disappear' from the market, for an individual REIT, or both. This could be due to crisis, financial or property mismanagement, or regulatory change. This is often referenced with the specter of interest rate changes from the U.S. Federal Reserve (Interview 2, bank analyst). REIT managers attempt to mediate that risk in a variety of ways (such as ensuring analyst coverage and those to be outlined below). As such, the concept of liquidity—largely identified in interviews and as a subtext to 'unlocking value'—acts as a meta-organizational one, framing the actions of REIT managers in as much as they frame the coming into being of liquidity itself through its iterative (though sometimes loosely identified) calculation.

The operationalization of liquidity as a performative practice (or utterance) is effected through its calculation. This necessitates that two important questions are resolved. First what does (economic or financial) calculation mean in the context of this thesis? And second, how is

liquidity calculated by S-REIT managers? The latter is the empirical concern of this chapter, but is addressed in a general sense here. Callon and Munesia (2005) identify two common risks associated with defining calculation. The first is the risk of reverting to abstract and formal views of economic markets as governed by impersonal laws consisting of disembodied actors diminished to their preferences and calculative competencies. In the case of the REIT market we might view expressions of liquidity as narrowly defined by the volume of trades or in relation to market capitalization in this regard. This renders liquidity as a natural 'thing' of the market that need only be 'uncovered' with the right 'pure' calculation—a simple arithmetic formulation, today automated and displayed online as part of the real time snapshot of the REIT market and for individual REITs (see Figure 3.1 below). This sets out liquidity as natural. It ignores its complex practice and potentially results in a distortion of the reality. The second risk, alluded to in my brief snapshot of the 'sociality of liquidity' (above), is to dissolve the notion of calculation completely into ethnographic description to show the infinite complexity of real practices as a result of 'pure' judgement and conjecture originating in institutional or cultural norms. In short, "nobody calculates" (Callon and Muniesa 2005:1230) in the narrow sense of the term.

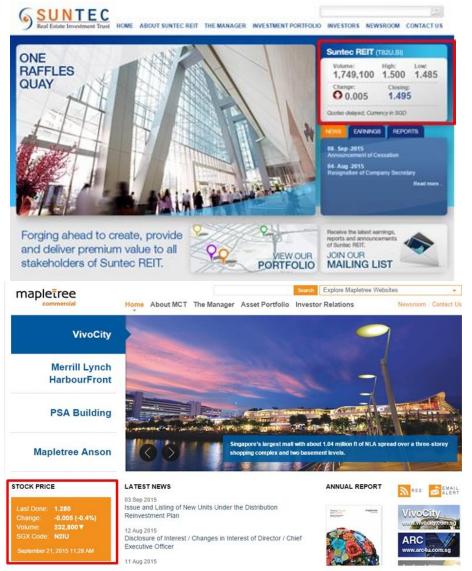


Figure 3.1: 'Stock price and volume'

'Stock price and volume ticker'. Source: Screen shots from (Above) http://www.suntecreit.com/ and (Below) http://www.mapletreecommercialtrust.com/en.aspx, accessed 20 September 2015. *Red box added to draw attention*.

Instead of settling with this binary between pure calculation and pure judgement Callon and Muniesa (2005:1231) articulate an alternative definition which avoids the 'too sharp' distinction between calculation and judgment: "Calculation starts by establishing distinctions between things or states of the world (i.e. a liquid or illiquid state), and by imagining and estimating courses of action associated with those things or with those states as well as their consequences." From this point they develop a three step process of calculation. First, to be

calculated entities have to be detached, moved, arranged, and ordered in a *single* (calculative) space, of which there are numerous varieties (i.e. an invoice, a grid, a factory, a trading screen, a trading room, etc.) that give rise to different forms of calculation. The second step holds that the entities arranged in a calculative space are then compared to one another and subjected to manipulations and transformations. Third, it is necessary to obtain a result or summation of the entities taken into account. It also must be a result that "has to be able to leave the calculative space and circulate elsewhere in an acceptable way (without taking with it the whole calculative apparatus)" (ibid:1231). Recall my earlier suggestion that liquidity can refer to both an effect of the market as well as the individual 'things' of that market (i.e. a specific REIT or property). In a sense liquidity is the resultant evaluation that circulates between these two spaces, between the collective calculative device of the market and an individual calculative apparatus of the REIT portfolio or property. Finally, this definition of calculation can be applied to forms of calculation that are not 'pure'—as is the case with the definition of liquidity—such that the dividing line is not between calculation versus judgement, but between arrangements that allow calculation (including judgement) and those that do not. It is important to note that 'calculation' does not mean that a result must be arithmetic (or quantitative), it can also be a qualitative evaluation (i.e. a certain property is liquid or a certain REIT share is liquid). Calculation is "not an anthropological fiction, precisely because it is not a purely human mechanical and mental competence; it is distributed among human actors and material devices" (Callon and Mniesa 2005:1245). The value of this conceptualization is that it enables us to understand how certain results of calculations, such as liquidity in this case, become organized and stabilized.

How is the liquidity of an S-REIT calculated? The process of calculation described above is not automatic or a 'natural competence' of all actors in financial or real estate markets, its

relative costs renders it the specialized purview of S-REIT managers in this case. The REIT manager, compensated on the basis of its 'management' abilities, is principally charged with making the real estate it holds calculable to potential investors. In this process it establishes the characteristics of the REIT and defines the relationships between the property and the derivative shares. The REIT manager is thus paid for their calculative agency, (an agency that is defined not only by its human actors but by the distributed agency of humans and their 'tools'), enacted to 'unlock value' or produce liquidity from 'things' (property) otherwise illiquid. From the point of view of much of the work in the social studies of finance, focused on finance's socio-materiality, this occurs within what I call the calculative space of the manager's 'office'. 34 It is here that the entities listed in Table 3.1 (below) are 'accounted', manipulated and transformed to come to a result. For example, while market capitalization and trade volume are common proxies or short hands for liquidity (Interview 7, CEO, REIT manager), they themselves are parts of larger arrangements which are dependent upon quantitative and qualitative assessments of 'asset quality' (Interview 1, bank analyst), which takes into account the full range of calculative inputs listed in Table 3.1 (below).

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³⁴ 'Office' here refers to the collection of calculative spaces/devices (quarterly reports, spreadsheets, computer screens, algorithms, bodies, etc.) from which each of the entities in Table 3.1 is derived and brought into a single space for sake of explanatory clarity at the expense of an exhaustive account of every component (which is beyond the scope of the thesis). The REIT manager's office is in a since the space of the 'calculative (spatial) matrix' of liquidity.

Table 3.1: Inputs to the calculation of liquidity

	en into 'account' in the REIT manager's office	
2. Inputs/Entities	Description	
Market Capitalization	The number of shares multiplied by the share	
	price.	
Trade Volume	The number of trades made in a particular	
	period of time for an individual REITs shares.	
Distribution per unit (DPU)/Yield	The amount of income (minus management	
	expense) distributed to each share. Calculated	
	on quarterly and annual basis (yield).	
Gross revenue	Total rental income.	
Net property income (NPI)	Total rental income minus management and	
	maintenance expenses.	
Net asset value (NAV)	The value that could be obtained in a sale of	
	the property. The average/median of two	
	independent assessments.	
Net lettable area (NLA)	The total leasable area of the property.	
Leasehold expiry ³⁵	The length of ownership from the state (max	
	999 years, but most <99 years).	
Occupancy profile	Occupancy rates, tenant profile, weighted	
	average lease expiry (WALE—average length	
	of tenant leases weighted by share of income	
	total)	
Gearing ratio	The ratio of debt held to asset value (max 45	
	percent).	
Analyst Coverage	The number of analysts covering each REIT	
	(listed on websites).	
Sponsor	Is the Sponsor a government-linked firm?	
3. Summation: An evaluation as to the property	depth/degree of 'liquidity' of a REIT's	

Source: Annual Reports of various S-REITs; MAS Media Release 2 July 2015; Interviews

After all, no matter the size of a REIT portfolio, if the 'asset quality'—determined by financial analysts using those features in Table 3.1 in addition to location, structure classification, etc.³⁶— is not up to the expectations of investors an evaluation of liquidity cannot

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³⁵ Some REITs hold 'freehold' properties, but these properties are not within Singapore, as all commercial real estate is secured under leasehold arrangements between the state and (first) purchaser in the city state. Though 999 year leases are effectively valued the same as freehold. One REIT manager (Interview 7) noted that this leasehold structure (with 60 or 99 years being the most common) presents some challenges for valuing properties as they near the end of the term (REITs often buy a property without the full 99 year leasehold); however it has largely been ignored by market actors. Though in the near term it might present a challenge to Industrial REITs, such as MapleTree Industrial Trust, containing properties with as a few as 16 years remaining on the leasehold (MapleTree Industrial Trust Annual Report 2014).

³⁶ The exact combination of inputs is different for every investor and analyst (Interview 2, bank analyst).

be had (value cannot be released). The REIT manager establishes relationships between inputs and then comes to a result. In this case the result is not a numeric value, such as a price derived from the deployment of the Black-Scholes-Merton formula for options trading (see MacKenzie 2006), but an evaluation of the degree to which a property or portfolio is liquid (or not). This evaluation then circulates—detached from the REIT's 'office'—within the space of the REIT market among other actors such as investors or analysts. This determines whether or not a property would be a good investment for inclusion into a REIT or whether the REIT itself is a good investment for investors.

This generic account of the calculability of liquidity by REIT managers gives rise to a few important conclusions and provocations. First, it is largely based on an a priori assumption (by REIT managers and shareholders) that liquidity is a real thing, a real value to be unlocked by REIT managers (Christophers 2010; Langley 2010; Interviews). To market actors there is seemingly no doubt that liquidity is real, made true through its iterative reification by market actors and the state. Second, the assumption is 'proved' in the performance of liquidity's calculation by the REIT manager; its 'utterance' 'enacts what it names' to borrow language from Langley (2010:77). However, for this liquidity to be of 'value' to investors as has been argued that it is, it must be objectified (that is made into a thing) and singularized (a thing whose properties have to be adjusted to the 'buyer's' [financial investor's] world, becoming part of that world through transformation) (Callon and Muniesa 2005). When Christophers (2010) argues that the treatment of property as a 'pure financial asset' is performed by the discourse that separates it from its value-in-use he is identifying this 'utterance' in the act of objectification and singularization necessary to make liquidity a calculable 'thing' for financial investors. Integral to both the REITs calculability of liquidity and Christophers' demonstration of liquidity as the

goal of property financialization is the notion of mobility or motion. Despite being disentangled from its use-value property can only have liquidity (or value-in-circulation) by being 'unlocked' through the mobilization of the property. Similarly, calculation only occurs through what Callon and Muniesa (2005) described as an 'economy of movements', which is the movement of entities into (social and spatial) arrangements that enable calculation. Note that many of the calculative entities in Table 3.1 make direct references to the physical materiality of property and potentiate its mobility or transformation. Combining the insights of both Callon and Muniesa (2005) and Christophers (2010) suggests that we attend to the ways in which the physical property (held by REITs) gets mobilized both as the calculative space (physical material device) upon which liquidity emerges and as a critical input (accounted entity) into calculation. This occurs by putting property into motion, altering the physical construction or assemblage of property as a space such that it might 'flow' (and enables flows) in the financial system. This is something done by S-REIT managers and should be afforded a more central concern, alongside the sociomateriality of upstream finance (trading in secondary markets), by researchers interested in the financialization of property.³⁷

The rest of the chapter identifies two specific ways in which (physical) property is enrolled (and mobilized) into the financial calculation of S-REIT liquidity and its performance: the first is the production of the REIT as a property portfolio, the second is the '(re)assembling of property' into a standardized asset (made possible through 'asset enhancement initiative' (AEI)).

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³⁷ Christophers (2010) rightly suggests that there are real limits to the notion of 'unlocking value' from property, principally couched in the impossibility of use-value to be disentangled for too long or by all actors at all times, and what Gotham (2009) refers to as the 'fixity' of property. Nevertheless, Christophers does admit that finance does mediate these limits often (though saying little of how), albeit temporarily. This mediation, I would posit, is possible through the 'economy of movements' which stabilizes property as a site for the production (calculation) of value-incirculation or liquidity, particularly in REIT structures which retain physical control of property (and which extends the life of the financial mediation). Property then has a dual role enabling and disabling calculation depending upon its 'mobility'. I return to the limits of property's mobility in Chapter 4.

These physical transformations materially reassemble property as a 'pure financial asset'. The final section concludes by bringing these empirical examples together to consider their collective theoretical implications concerning the performance of liquidity for urban space and financialization.

3.3 Producing the property portfolio: liquidity as physical volume

The portfolio of properties held by a REIT is one of its defining characteristics. Additionally, it features as central to the sales pitch offered by REIT share brokers, as I observed at a public seminar by a local Singapore brokerage firm titled playfully: Is it the REIT time (attended by Author 17 July 2014)? At the seminar the broker presented slide after slide of the latest 'blue chip' or 'landmark' property acquisitions by the Government Investment Corporation (Singapore)³⁸ and The Government Pension Fund (Norway)³⁹ in global cities such as New York or London to demonstrate the intense interest in real estate investment by the 'big guys'. You could be just like the 'big guys' he claimed and take your piece of the rising global real estate market. But, whereas the 'big guys' have the cash and risk profile to invest in a single property investment of such magnitude, retail investors do not. Thus, the shares of a REIT offers the ability to acquire the advantages of such large-scale investment while providing a risk profile, geographically distributed to a portfolio of properties, more amendable to such investor's more limited capital. Such a pitch is seductive. (And not just to retail investors but to the state as well (Interview 1, bank analyst)). The rationale for the assemblage of disparate properties into a singular portfolio of real estate stems directly from portfolio management theory which stipulates that such actions enable efficient, more transparent, less risky, and liquid markets (Interview 9,

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³⁸ Formerly known as the Government of Singapore Investment Corporation, it is the country's largest sovereign wealth fund.

³⁹ Formerly known as The Petroleum Fund of Norway, commonly referred to as the Oil Fund, is the world's largest sovereign wealth fund.

real estate consultant; Interview 10, REIT marketer; Henneberry and Mouzakis 2014). Fundamentally, it is through the manipulation and growth of the physical portfolio that liquidity of the REIT structure is secured or brought into being. Through a process known to REIT managers and allied actors as 'yield accretive acquisition' (Interview 1, bank analyst; Manglani 2005; Ong 2010) property is reassembled into a portfolio; it is one that is both spatially *expansive* and *selective*. This is told in two parts: the first draws upon the notion of property(-asportfolio) as a calculative space for liquidity, and in particular addresses the expansive role of property. The second, drawing upon the selectiveness of REIT managers (as financial actors) for particular properties (see Chapter 2.1.2; Halbert et al. 2014) in the portfolio formulates the role of property as an input or 'accounted' entity. Assembling property-as-portfolio then is an important calculative and material practice which does not stop at the IPO but is an iterative act which brings liquidity into being (or performs it).

3.3.1 An expansive portfolio, an expansive liquidity⁴¹

Recall the quote from the first section of this chapter regarding the importance of liquidity and its relationship to market capitalization. The REIT manager CEO argued that "with size [market cap] comes liquidity" (Interview 7). In the second section, I identified market capitalization as one 'entity' among many taken into account. Such an assessment is confirmed by the bank analysts who cover REITs (Interviews 1 and 2), but it nonetheless is a useful starting point for tracing out the logics of assembling property as a portfolio. First, market capitalization of a REIT is a financial metric defined by the total volume of outstanding shares multiplied by

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⁴⁰ To say that a property is a yield accretive acquisition is to say that the property's inclusion increases the rate of return to the shareholders. The 'acquisition' identifies the expansive aspects of the portfolio, while the term 'yield accretive' signifies the selective aspects of portfolio assemblage.

⁴¹ It is Important to note that physical expansion should be viewed as a contiguous physicality, rather the physical materiality of a REIT portfolio is structured like the roots of a Bayan tree (native to Singapore), each distinctly visible as separate entities (individual properties), but also unified as an ecological unit.

the price at which each share is presently traded. Ostensibly the higher this value (market capitalization) is the more interest there will be in the REIT's shares, and therefore more liquid the shares will be. This is principally because market actors view market capitalization as fundamental to risk assessment. A higher capitalization means a lower risk. And while one REIT manager complained of the lack of control on this matter, market capitalization can be increased by increasing the number of shares available at the market price. Such an action is within the control of REIT managers. As argued by Frasers Centerpoint Trust:

"Following the Private Placement [offer of additional units/shares], FCT will have a substantially larger market capitalisation. This could potentially result in a diversification of FCT's unitholder base and is also likely to attract wider investor interest. The New Units, when issued, are expected to increase FCT's outstanding number of Units on the SGX-ST which, in turn, is expected to result in *greater trading liquidity*, thus potentially benefiting Unitholders" (Frasers Centerpointe Trust, *Circular regarding proposed property acquisition*, 12 May 2014, *emphasis added*).

There is no explicit link to the physical world in the above statement, but it is important to note the context in which discussions of market capitalization usually arise. It is often in direct reference to acquiring physical properties, to which REIT managers indirectly link market capitalization (Interview 7, REIT manager CEO). Often the deployment of the term 'size' as a linguistic substitution (Interview 2, bank analyst; Interview 7, REIT manager CEO) indicates a subtle slippage between the market size and the physical size—often referenced on paper by the net asset value (NAV)—of a portfolio of properties. Furthermore, the passage above is drawn from a circular announcing the acquisition of the Changi City Point mall. The acquisition was financed (in part) by the offering of new shares, like most acquisitions of new properties into a REIT portfolio. But property plays a more important role than just being financed. In fact, without the physical property as a justification for the offering of new shares, the REIT manager would risk diluting the value (price) of the shares. Without the growth in the asset base of the portfolio, and physical property acquisition being the most significant and 'visible' means to do

so (Interview 4, REIT manager CEO), a share offering at the current market price (informed by the NAV of the physical asset) could not be justified. This would potentially make the REIT more illiquid as the market capitalization might suffer, hurting shareholders. Assembling property into a portfolio enrolls property as the (mostly expanding) calculative space upon which liquidity is calculated. A portfolio is not just an on paper machination, but must be physically made. Perhaps it is in moments of crisis that this is most clear. One S-REIT manager identified the need to acquire assets to survive (and counter) a more widespread 'liquidity crunch' following the financial crisis:

"Through the crisis one of the things we needed to do was recapitalize the REIT because the REIT was over geared [re: too much debt]. Recapitalization occurs through various means, one of which is to issue equity [new shares], which we did. [In the process] buy[ing] assets to shore up the portfolio. So we bought one asset from the sponsor, which gives good income, which helps shore up the income base and asset base of the property [portfolio]. [...] Obviously, with that equity recapitalization, that gives confidence to the banks, which are then able to refinance our debts [and become less geared]..." (Interview 4, REIT manager CEO).

As the material portfolio expands so too does the potential liquidity for the REIT.

3.3.2 Selecting (property) for financial liquidity

"Today if you want to form a REIT, you will want to go to a market where you think there is sufficient liquidity. [...]You know some markets it may not be as attractive. It is interesting because if you think about Hong Kong—Hong Kong is a financial center, but the REITs have not developed as well as in Singapore. [...] in Singapore the first few REITs were actually led by government-linked companies. They put their *good assets* in the REITs, to kick start the REIT market and give investors a good experience. They could buy a good asset and get good rentals. When Hong Kong first started its REIT market, the property market was dominated with properties owned by large, private developers. These companies put their worse properties in the REIT. This was on the basis that if it is a good asset why should I get rid of it? They put their not-so-good assets in the REITs. That was not a very good start and investors questioned the attractiveness of Hong Kong REITs. People get cynical, skeptical, and suspicious" (Interview 4, REIT manager CEO).

It is not just any property that REIT portfolios acquire. The REIT manager identifies in the statement above the importance of 'good assets' as an input to the calculability of liquidity. Investors seek properties that are defined as 'yield accretive', which means they will or have the potential to increase the rents per share to shareholders (DPU). Put another way, they seek

properties that enable increasing cash-flows to be transferred from the property to shareholders of the portfolio by way of rent paid to the REIT manager. It should then be of little surprise that the selectiveness of REIT managers for such properties has resulted in the investment geography indicated in Figure 3.2. Most retail REIT properties are characterized by large, air conditioned shopping malls which are strategically positioned at transit (MRT) stations or better yet interchanges (crossings of multiple MRT lines), which enable a wide flow of (potentially cash spending) bodies through its constructed space (see Section 3.4 regarding the role of foot-traffic metrics). It is no accident that properties mobilized into REIT portfolios are positioned to take advantage of the mobility inherent to the transit system. Often representing the only way in or out of the public transit system, these properties collected into a portfolio are physically structured to capture cash-flows throughout the city at multiple points (for some REITs such as CMT and FCT). This suggests that the locational and physical attributes of these portfolio properties are not merely the artifacts of liquidity in Singaporean REITs (see Lizieri and Pain 2014), but constitutive of it (or its calculation which brings it into being).

Causeway Point Yew Tee Point 0 Northpoint Lot One **Bukit Panjang Plaza CHITCHIS** Kebun Sharu III Rickle German ETT CONTINUE Cha Kaveg Fl. Vir bling \$278 See Chew SEE Ang No kie II Junction 8 E Build Batch CO Botanical Gardens - - -Ton Bed mjan kesa **Tampines Mall** Westgate **JCube** Wisma Atria Clementi Mall Plaza Singapura, Atrium@Orchard sin sing san **Bugis Junction**, Changi City Point Bugis+ Haw Par Villa Clarke Quay Suntec City an Fanjary CapitaMall Trust Raffles City Frasers Centrepoint Trust Labrador Park 1 Starhill Global REIT Telok Dlasgah I **Mapletree Commercial Trust** Rigina Sav SPH REIT VivoCity Suntec REIT

REIT-owned shopping malls within 100m of an MRT/LRT station or bus interchange

Figure 3.2: REIT properties and the MRT

REIT properties are mostly located along or near MRT stations. Source: DBS Bank (2014

3.4 (Re)assembling property as a flow: liquidity as interchangeability and standardization

The second way in which the physical materiality of property is enrolled into the calculation of liquidity is through the deployment of 'asset enhancement initiatives' (AEI). In the terms of the REIT managers these are those actions taken to 'refresh' their portfolio properties such that they can remain 'relevant' and to 'unlock value' (Interviews 4, 5 and 7 and Interview 1, bank analyst). As suggested in the name, the REIT manager here takes an active role in the remodeling, refashioning, and remaking of the physical property; such that it takes on a recombinant potentiality. Recall that the second stage to Callon and Muniesa's (2005) definition of calculation was that the entities arranged in the calculative space are then subject to manipulations and transformations. The AEI represents that transformation to which property as an 'accounted' entity is subject to.

REIT	Details	Year
CMT		
Tampines Mall	Creation of new retail area at level 5	2015
IMM Building	Phase 1 of repositioning as a value- focussed mall completed, Phase 2	
	underway	2013
Bugis Junction	Recovery of c.70k sqft of space from anchor tenant BHG, and converted these spaces into specialty stores	2014
(a.dea	Continued Office of the Australia	2014
Jcube	Creation of 25k sqft "J-Avenue" retail street concept	
awayan Emma yarar		2014
Bukit Panjang	Construction of two new floors at the	
Plaza	extension block which will house a new F&B garden	2016
Atrium	Conversion from primarily office	2010
@Orchard	development to mixed-use development, connectivity with Plaza Singapura	
	enhanced	2012
Bugis+	AEI to improve efficiency and layout	2012
FCT		
Causeway Point	Downsized existing anchor tenants, relocated escalators and built family	
Bedok Point	friendly features Reconfigured basement to bring in	2012
	Harvey Norman	2014
SGREIT		
Wisma Atria	Improving frontage the mall, creation of duplex shop fronts and improving accessibility to other nearby Orchard	2012
	Road malls	2012
Suntec REIT		
Suntec City	Revamp of the mall in three phases, to feature fashion brands, family friendly shops and high end international retailers	2013 /14
MCT		
VivoCity	Reconfiguring existing GFA to maximise efficiency, extending lease lines, implementation of kiosk concept	Ongo

Figure 3.3: Asset enhancement initiativesRecent asset enhancement initiatives at retail REITs. Source: DBS Vickers (2014)

First, outside of property acquisition AEI are viewed as vital to the structure of the REIT for two reasons: first is because of the drive for yield by REIT managers and the second is because of the preferences of both investors and consumers are continually changing (Interview 9, real estate consultant). On both accounts there is the impetus for AEI to occur on an increasingly frequent basis. AEIs offer a justification for increasing the rent, which appeals to shareholders. And while consumer preference and other institutional changes in the retail market are at play, REIT managers have a greater impact largely because they are able to move very

quickly. A mall with strata management containing 200 plus owners would render the ability to do AEI near impossible. For example, the AEI listed in Figure 3.3 (above) for the J-Cube Mall property took place just two years after the mall opened in response to lower foot traffic numbers. As apparent in Figure 3.3 AEI take a variety of forms but generally are employed to make the physical spaces of the properties more 'efficient', restructure to enable a wider variety of tenants, enhancing connectivity, and increasing the space of the lettable area.

Second, consider the failure of SingMall Trust, which became CapitaMall Trust (CMT), and is today one of the largest and most liquid retail trusts. When first launched in 2001, its IPO was undersubscribed and it was pulled from the market. The cited reason for this was that it offered a yield too low to investors. The property portfolio—with its shares unable to obtain a market price—remained illiquid. For the second, successful launch no additional properties were added to the portfolio but the REIT manager announced an AEI that featured what would be known in the REIT industry as a 'decanting' of one of its portfolio properties—the Junction 8 Mall (Whiting 2007). In this case the Gross Floor Area (GFA), prescribed by Urban Redevelopment Authority (URA) regulations, and had already been met, was physically reassembled (See Figure 3.4). The office tower GFA was transferred to create a two story retail podium. In effect, the 'use-value' of the tower is hived off (in fact made 'uneconomic' by 'giving' or transferring it to the National Council of Social Service) and the property, its

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⁴² One other common solution to increasing the yield on a property to make it suitable to investors is to use a technique known as income support. Income support is when the seller of the property (usually the sponsor) pays a fixed amount to the REIT for an agreed upon number of years as income. This is often done where the current income of the property is unknown (because it has no history) or too low, giving the Manager a few years to raise the income before the 'underperformance' hurts the liquidity of the asset. Arguably this creates a disciplinary mechanism which rationalizes rent increases to get tenants to achieve cash-flows that 'live-up' to the value the property is engineered to 'hold'. One REIT manager CEO (Interview 7) stated that this has been used in Singapore maybe 20 times and "it's just wrong". Further adding, "It's not real estate fundamentals." Its financial-spatial engineering.

⁴³ 'Decantings' were authorized in the early 2000s to lessen the perceived oversupply of suburban office space. They are currently not permitted under revised URA polices.

physicality, is 'transferred'—effectively mobilized—to unlock 'greater value'. The purpose of this process is to reconfigure spatially the property to produce a higher yield (or exchange value) for investors and enhance trade volume; a measure of liquidity. More than just renovation, what is being asserted here is the performance of liquidity is not just dependent upon the discursive or for that matter just 'credit', but also the material; the putting of property into physical motion.

AEI such as the decanting mobilize space to make it more flexible for a wider variety of tenants such that they become interchangeable. With the increasing frequency of asset enhancement initiatives, property is made to *flow*; that is constantly be changed and mobilized in the process of 'unlocking value'/enacting liquidity.



Figure 3.4: AEI, Junction 8 mallAsset enhancement of the Junction 8 mall. Source: Capita Mall Trust.

Finally, part of the transformation enacted by the AEI upon REIT property is to make its physical materiality standardized; that is to make the space of the property "a little more generic" (Interview 1, bank analyst). This is perhaps clearest by drawing attention to otherwise the most unique retail assets held by REITs in Singapore. Both Clarke Quay (owned by CMT REIT) and China Square Central (owned by the commercial REIT, FCCT) consist of a collection of shophouses set aside for conservation by the URA. Clarke Quay was acquired by the sponsor of the CMT REIT and reshaped before the REIT acquired it to transform it into a suitable investment with an enlarged lettable area (nearly the size of the larger traditional malls). The signature feature of this was the deployment of a glass canopy which transformed the formerly open air plazas into 'interior', partially climate controlled spaces. 44 This enabled the REIT to treat the shophouses more like a mall, the standard property typology of a REIT, and more importantly making this collection of shophouses read like an asset more recognizable to financial investors. China Square Central, in Figure 3.5 (below) largely followed the same formula, though the material transformation of the shophouses into a mall-like complex occurred as part of an AEI after the REIT acquired the commercial tower (its primary target) which was part of the parcel. This standardization, produced out of the material transformation of the shophouses physical materiality places emphasis upon the transformation of property into (cash-) flow.

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⁴⁴ A completely enclosed and climate controlled space was not permitted by the Urban Redevelopment Authority.

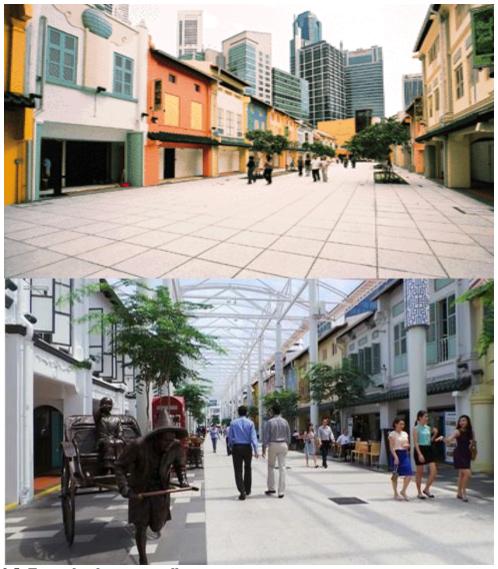


Figure 3.5: From shophouse to mallChina Square Central's transformation from shophouses to mall. Source: Low 2002 (above); FCCT, accessed 12 October 2015 (below).

3.5 Liquid urbanization: spatial liquidity, liquid space and financialization

"The nature of REITs constantly challenges the asset managers to think out of the box to create better value for shareholders. This includes growth strategies to acquire properties and initiatives to enhance existing retail assets" (Capita Land Limited, sponsor of CMT REIT, March 2015).

Perhaps the following is the result of asset managers' 'out of the box' thinking.

Collectively, the material *and* physical actions of the REIT manager described in the *doing* of property-as-portfolio and the (re)assembly of property constitute what I will refer to as spatial

liquidity. If financial liquidity is 'value-in-process' or the putting of capital into circulation, then spatial liquidity is the mobilization of property as a space-in-process. The notion of 'space-inprocess' presents is the putting of space into circulation. By this it is meant that REIT managers engage in actions that create spatial churn as their properties are continually reformatted. Furthermore, spatial liquidity further isolates (or detaches) property from its value-in-use. Haila (1988) identified what she referred to as two 'effects' of treating property as a financial asset. First she argued that there would be frequent changes in the uses of space such that they are quickly replaced. Second she argued that there would be the tendency to displace use values with the production of abstract space—space that is more flexible, built for nothing in particular as a hypothetical 'pure commodity'. To Haila these clarify Castells' (1985) notion of the 'space of flows replacing the space of places'. However, the notion of spatial liquidity posits that rather than effects, these are the material forms of actions taken by REIT managers to enact liquidity. Spatial liquidity is embedded, alongside the socio-material calculative practices of the 'REIT office', within the calculative apparatus of financial liquidity. This suggests that liquidity is performative in its calculability, and furthermore that that calculability is constituted by a sociomateriality and physical materiality.

This spatial liquidity has two major features in the REIT. The first, builds upon the work of Haila. Directly recognizable from the 'decanting' of the Junction 8 mall, is the production of property as an abstract but also *recombinant* (or potentially so) space disconnected from its value-in-use and put into motion through interchangeability and standardization; plugging-in and un-plugging space to fulfill the whims of financial investors. That is property itself is rendered as a flow, a liquid space. The second is the rendering of property, also suggested by Halia, as a space of flows. Embodied by retail REIT managers' focus upon foot

traffic accumulation—which is rapidly made into a financial metric (Interview 6, REIT auditor)—it suggests that property is made valuable through its production as fluid, vibrant; moving bodies and enterprises easily through property rather than being fixed to it.

Finally, what of financialization and the urban? Certainly the expansion of REIT management of urban space in Singapore constitutes a financialization of urban (retail) space. And while it by no means covers a totality, or even a plurality of the available urban space, it perhaps is altering the spatial arrangements of some of the most important urban spaces—the transit corridors to which flows of capital and people navigate daily. The empirical work illustrates just how financialization, through the treatment of property as a financial asset (brought about through calculation), materially alters urban space. It also suggests how financialization might be understood to be constituted by calculation as a set of spatial (and perhaps urban) processes. But what is the effect of all of this? The effect that emerges as a result of this financialization of the urban—that is as unpacked in the production of spatial liquidity—is the spectacle. It is to this that the next chapter turns.

Chapter 4: Emerging spectacle in the everyday: from an effect of spatial liquidity to sustaining urban financialization

4.1 Introduction: The S-REIT mall as an emergent site of the urban spectacle in the everyday

The suggestion that Singapore might be the site/sight of the urban 'spectacle' is not an altogether new argument. It is an often cited trope (Lee 2015). Early work on the spectacle in Singapore turned to understanding the role of the spectacle as a technology of national identity formation centered on the production of the National Day Parade (Kong and Yeoh 1997). Today the spectacle has been transformed to promote a global cosmopolitanism (Goh 2013), transpiring in such events as Racial Harmony Day and the Formula One night race and in the growth of the deployment of 'star-chitecture' styled city-making with the recent completion of several megaprojects, including the National Stadium and the skyline-transforming structures of the Singapore Flyer⁴⁵, Marina Bay Sands⁴⁶, and the Gardens by the Bay⁴⁷. Not only are these spectacular in their size and scale, but also as signifiers—physical and representational—for a 'global Singapore' which is being put into circulation across various artistic and communicative media within the city-state and around the globe. These spectacles become the backbone of 'cultural strategies' for economic redevelopment, quickly "becoming features of a city in which consumption and leisure become 'experiences' to be consumed, collected, and displayed" (Gotham 2005:227; Zukin 1997, 2004; Shin 2012). These examples are what Debord (1998) [1967]) referred to as the 'concentrated spectacle' in which the main purveyor of the spectacle is the state or bureaucratic class. However, there is another type of spectacle, which Debord refers

⁴⁵ World's largest Ferris wheel.

⁴⁶ An 'Integrated resort' includes a Sands Casino, luxury retail mall, Art-Science Museum, and hotel with a disappearing edge pool at the 57th floor overlooking the city. It was designed by the 'starchitect' Moshe Safdie. ⁴⁷ Gardens by the Bay is a 1 billion SGD set of Botanical Conservatories neighboring the Marina Bay Sands and Downtown Singapore (AsiaOne 15 October 2012).

to as the 'diffuse spectacle'. It is characterized by commodity abundance and mass consumer society. It operates through seduction, transforming individuals' needs and desires through the barrage of competing commodities whose images, have "drugged" them into passivity. He considered it more effective than the 'concentrated spectacle' which requires forms of state coercion. Both create forms of social control (Dogan 2011). Individuals are forced to "observe images that others create" (Gotham and Krier 2008:169). In a society of the 'diffuse spectacle' the spectacle takes a multitude of forms, including urban festivals, shopping malls, mass media (magazines, television, films), and spectacular architecture. It is propelled through key technologies of 'image' making, including corporate branding, simulation, and theming (Gotham 2005; Gotham and Krier 2008).

In his analysis of capitalism Debord (1994[1967]: thesis 42) argued that the spectacle emerges when "the commodity completes its colonization of social life. [...] Commodities are all that there is to see; the world we see is the world of the commodity." Critically this work extends the Marxian concept of alienation ⁴⁹ from the commodity to the "sphere of consumption where hypothesized abstractions [representations of commodities/images] now affect all aspects of human life" (Gotham and Krier 2008). The spectacle creates alienation through the individual's recognition of their needs and desires in the images being produced for them, such that they no longer understand themselves. As noted in Chapter 2, there is no more archetypal space of the 'Debordian spectacle' than that of the shopping mall -- by design, "temples of frenetic consumption" (Debord (1994[1967]: thesis 174; Gotham 2005; Elsheshtawy 2010; Jones and Sanyal 2015). In the words of Margaret Crawford (1992:126, *emphasis added*):

⁴⁸ Images are the abstract representations of commodities. Images come in a diversity of forms from marketing material to the built form.

⁴⁹ Alienation is the relationship by which workers are estranged and separated from the product of their work, production, themselves, and others (Gotham and Krier 2008).

"Inside the mall presents a dizzying *spectacle* of attraction and diversion...Confusion proliferates at every level; past and future collapse meaninglessly into the present; barriers between real and fake, near and far dissolve as history, nature, technology are indifferently processed by the mall's fantasy machine."

The spectacle at once alienates, separating individuals from their experience, while also enabling them to 'rediscover' their unity in consumption. The 'magic of the mall' (Goss 1993), its 'fantasy machine', resides in the deliberate attempt to soften the alienation that a world of commodity capitalism creates through the production of an image-saturated space of leisure—'a multisensory experience' of sounds and sights (be it musical, advertising, aesthetic, architectural, etc.). The spectacle is the social relation of the commodity/commodification mediated by the image, as a 'thing' and as an experience. It is not the image per se, but activated by it. Work by Kah-Wee Lee (2015) on the spectacle of ION Orchard⁵⁰, the latest of the premier shopping malls in Singapore, illustrates just how the multi-actor 'science of malling' (incl. developers, architects, demographic marketing experts, planners, and in our case REIT managers) has been oriented towards the strategic deployment of the 'image' in producing certain affective experiences which attempt to inculcate consumption by individuals through the manipulation of their needs and desires (often successfully). Lee demonstrates how the image and affect correspond to opposite sides of the same coin of the spectacle, giving as example an elevator poster which develops the atmospheric sense of 'luxury' in ION Orchard by rendering the commodity signifiers (such as a brand name) to the background (obscured) and the 'image' (the art) to the foreground.

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⁵⁰ ION Orchard is expected to be acquired by CMT from its Sponsor CapitaMalls Asia (CapitaLand) (CMA), but because of numerous development projects in the works by CMA it has been retained by the Sponsor to provide much needed income which is not bound by the legal limits of the REIT structure.

For malls located in S-REIT structures the spectacle is not 'new' but is further exaggerated and accelerated by the REIT manager's treatment of property as a 'pure financial asset'; that is, for the money that it can make rather than its use. Recall, the real estate expert (Interview 9) from Chapter 2. He argued that non-REIT malls are sometimes managed in rather perplexing, perhaps less profitable ways. Another interviewee (4, REIT manager CEO) stated that non-REIT mall managers are 'sleepy' resulting in 'dead' corridors. The suggestion is that REIT management matters for the intensity of the mall as spectacle. This is enacted through the production of spatial liquidity, which renders "the totality of the commodity world [the mall] visible in one piece"—that is, as money---the spectacle in its *full development* (Debord (1994[1967], thesis 49, emphasis added).⁵¹ In Chapter 2, I argued that Debord's theorization of the spectacle offered an *anticipation* of financialization; nearly a half-century later, however, insofar as the spectacle "is another facet of money" (ibid.), the financialization of property through the regulatory technologies of the REIT has itself become a form of spectacle production and realization. The spectacle becomes so deeply intertwined with financialization that it is not too much of an exaggeration to suggest that financialization is a form of spectacle. As enacted through the production of liquidity, the process of financialization becomes inseparable from the extension of the spectacle in the built form of retail spaces. The central tendency of spatial liquidity, as indicated in Chapter 3, is to create space that is more 'abstract', standard and homogenous, in order to encourage a variety of uses, but no use in particular. The risk of this, recognized by bank analysts studying S-REITs, is what they refer to as the "commodification of malls, where shoppers find little difference between different malls in Singapore" (DBS Vickers 2014:11). This abstraction is the 'image' (in built form) of the mall. As REIT managers enact

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⁵¹ Debord further develops this line of thought arguing, "The spectacle is money for contemplation only, for here the totality of use has already been bartered for the totality of abstract representation." See Chapter 2 on the spectacle and financialization.

spatial liquidity on the property their actions are increasingly directed towards provisioning ever more seductive and distracting images of the mall (be it in advertising, architecture, or art) which entice greater foot traffic and greater numbers of potentially consuming bodies—consumption being the way in which the alienating impacts of the spectacle are obscured. Yet while the spectacle can be seen as emerging from the performance of spatial liquidity, this is not a matter of simple deterministic causality: the spectacle has an autonomous production in its own right; it is a product of capitalist accumulation and it is ideological. Instead financialization and the spectacle represent overlapping ecologies whose effects emerge from their interaction.

Finally the REITs announce what amounts to the arrival of a 'new stage' of the urban spectacle in Singapore;

"In tandem with accelerating commodification of the built environment is the rapid expansion of the scope of 'the spectacular.' No longer confined to familiar iconic architecture and celebratory built forms, it now encompasses a widening network of 'other' spaces [...]. (Chu and Sanyal 2015:399).

It is common in the literature to argue that one way of resisting the spectacle is to 'walk away' (Allen 2006). Quite simply, one can choose not to be seduced by the presentation of seductive images. This tactic presumes that sites of spectacle can be recognized as discrete, isolated events or places. However, through the extension of the REIT portfolio into the public infrastructure of daily life (see Figure 3.2), the REITs have sutured together malls across Singapore into a nearly comprehensive urban system—a fully networked spectacle that makes it increasingly difficult to 'walk away'. What is new about the REIT spectacle, then, is that it has become the vehicle for the spectacle's encroachment into everyday urban life in Singapore. ⁵²

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⁵² This is perhaps even more pronounced if you consider the fact that REITs also control increasingly large shares of the places people work as well in the office, industrial, logistics, and healthcare sectors in the city-state.

The rest of this chapter is organized as follows: the second section is a case study of the J-Avenue AEI of the J-Cube⁵³ which offers an empirical example of what the spectacle looks like through space and time in a REIT-operated mall; the third section unpacks the contradictory empirical contours of the REIT-induced spectacle, namely arising out of an operationalization of the need for greater foot-traffic on mall properties; finally, the fourth section draws together these empirical findings to present a theoretical argument that the spectacle sustains this financialization.

4.2 J.Avenue's 21st century spectacle of the self(ie): a case study

In 2012 CapitaMall Trust opened the JCube, having completed a ground-up rebuild of the existing Jurong Entertainment Centre mall complex shortly after acquiring the property in 2006.⁵⁴ In order to entice foot traffic out to its mall the JCube was positioned as 'ultra-hip', as cool as the inspiration for its 'iconic' design—an ice cube (see Figure 4.2):

"...the new mall is positioned to be a *trendsetting lifestyle destination offering spectacular design* and unrivalled shopping experiences to the young; professionals, managers, executives and businessmen (PMEBs); and residents in the western region of Singapore. Visitors will be able to shop for the latest high-street fashion, dine and entertain in round-the-clock F&B outlets, pubs and bars, some of which will be located around a *fully integrated Olympic-size ice skating rink* on Level 3. Complete with a 463-seat gallery and changing rooms, Singapore will be *able to host international ice skating and ice hockey events and competitions* at the rink. (CMT *New Release*, 21 May 2010, *emphasis added*)

⁵⁴ It originally intended to just commence an AEI of the existing mall (2008), but the financial crisis and cost estimates that were too high delayed and altered the project.

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⁵³ A portfolio property of the CMT, and large shopping mall in Singapore's Jurong Lake District. The Jurong Lake District is current receiving major investment from the state as they attempt to transform it into a commercial and leisure destination.



Figure 4.1: JCube's 'spectacular design'

JCube architectural rendering of Olympic skating rink. Source: CMT News Release 21 May 2010.

And if that were not enough the CEO of the CMT reiterated the role of 'spectacular' design a second time in the news release. The JCube will bring a "multi-faceted lifestyle destination offering spectacular design and unrivalled shopping experiences to ... [visitors] in Jurong Lake District..." (CMT New Release, 21 May 2010, emphasis added). The asset enhancement of J-Cube through a complete transformation of the material property was asserted by the REIT chairman to be a

"...key milestone in CMT's track record of asset enhancement to grow its distribution [of income] to unitholders. The complete makeover of Jurong Entertainment Centre into a brand new mall will offer significant value creation" (CMT *News Release* 21 May 2010).

However, the "significant value" offered to shareholders was soon threatened. Within two years of the completion of JCube, citing lower shopper traffic numbers by approximately two percent (despite rising income), CMT REIT announced a further AEI of Level 2 of the mall which they called J.Avenue (see Figure 4.3). This AEI consisted of two major components. First, the second floor would be redesigned to offer a "hip street shopping environment" complete with

a mock Electronic Road Pricing sign⁵⁵ positioned over the entryway. Through a scheme providing for 'small stall units' with leases of as little as three months the AEI attempted to offer shoppers the ability to "discover something new with every visit" (Poh 2015; Capitaland Mall Asia (CMA), *Media Release* 2 Sept. 2014). In other words, the rapid turnover in the retail tenants of the space itself becomes part of the ever-changing 'image', a spectacle intended to enhance foot traffic on the property (Interivew 4, REIT manager CEO). Second, the AEI would feature "brightly colored and cheerful design motifs across its walls, pillars and floor, thus providing plenty of quirky and fun backdrops for selfies" in an attempt to draw high-spending youth (Capitaland Mall Asia, *Media Release* 2 Sept. 2014). Highlighting this 'selfie spectacle' is the J.Avenue Social Wall:

"... catering to the selfie craze is... a huge LED screen measuring 4 meters by 3 meters, which aims to become the center of social recommendation submitted by J.Avenue's community of shoppers. Shoppers can take photos at two designated kiosks and decorate them with themed frames before uploading them onto the Social Wall for all to see. Shoppers can also use the official hashtag #JAvenueSG on Instagram to share their special moments at J.Avenue. These images will also be screened "live" on the Social Wall" (CapitaLand Mall Asia, *Media Release* 2 Sept. 2014).

This brief history of AEI (an enactment of spatial liquidity) commenced by the CMT REIT manager tells us three things about the spectacle. It is worth remembering the essential purpose of a REIT is to provide a recurring income distribution to its shareholders. The REIT manager is pressured not only to produce this income, but to increase this income over time. With a portfolio of stabilized assets this means they are pressured and incentivized to increase rents or the cash-flow of the properties on a constant basis. So first, as a result REIT managers not only commence recurring AEI to support such increases as illustrated in Chapter 3, but they increasingly seek out ever more *spectacular forms* of AEI. Second, there is a temporal quality to

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⁵⁵ These automated tolling structures sit atop major roads in Singapore, and the installation of an ERP implied an acceleration of traffic and hence popularity.

the spectacle. There were only two years between the first and second rounds of AEI at the JCube. In part this is because the first relied upon a relatively fixed spectacular feature: the ski rink. Such spectacles quickly become commodified—either through their standardization (of kind if not form⁵⁶) across other shopping malls in the REIT portfolio, or through an erosion in the effectiveness of attempts to seduce consumers into consumptive behaviors. What once was spectacle becomes standard. As Gotham (2005:234) writes, "the point is that spectacles must continually stimulate new forms of gratification and revelry if they are to remain attractive". In part, this is likely because shoppers come to resist the spectacle of the mall (Miller 2014). Declining shopper traffic might indicate that the mall is no longer succeeding as a spectacle wherein the individual is 'unified' in consumption. This is possible given the context of developments surrounding the JCube where it faces incredible competitive pressures. There are three CMT REIT owned malls in its immediate vicinity of the Jurong Lake district. With greater choice, REIT managers are forced to seek out ever more spectacular spectacles—speeding up the novelty—to stimulate consumer demand. Third, by drawing in higher shopper traffic, the spectacle accelerates-by-distraction the cash-flows to be accrued through rental increases.

The J.Avenue production of the spectacle relies upon two "technologies of the spectacle" (Gotham 2005). The first is simulation. By simulating a 'hip street environment' the images draw the attention of the individual away from the commodification of the mall. It attempts to produce an affective experience of urban diversity. This feature is strengthened by the spatial transformation of the space towards small, less permanent (higher turnover) retail spaces which mimic the structure of the shophouses rapidly disappearing from Singaporean's daily consumptive culture. There is an irony here. The 'fake' simulation of the shophouse comes to

⁵⁶ CMT owns its neighboring mall the IMM Building, which currently has the 'largest indoor playground' in Singapore.

proliferate just as the 'real' shophouses continue to get removed from the retail landscape. In the words of Debord (1994[1967]) there has been a shift from 'having' to 'appearing'. Consumers appear to encounter the shophouse, rather than the authentic experience. Second is the use of theming. The theme here is the self. From the curated images as backdrops for 'optimal' selfie moments to the use of the 'Social Wall' to proliferate these images of the self, the 'self-image' is appropriated from the individual to stimulate consumption. This takes the recognition of one's needs and desires in the image of the commodity to new levels, for it detaches an individual's self-image from their own experience and merges it with the image of the product that they included in the selfie. To get their self-image back they have to consume. Or at least that is the intention. Certainly consumers can recognize such manipulative attempts. This presents an opportunity for a possible intervention or even 'counter-spectacle' in which the selfie-image is re-appropriated for individual self-realization in the space of the mall. Nevertheless, these obfuscations enable the acceleration of the mall as a site for the extraction of cash-flows.

The result is a spectacle production of urban space that is:

"dominated increasingly by images and events that reduce the novelty and potential spontaneity of urban life to set-piece, homogenized, corporatized spaces that carefully package the 'experience of urban diversity, to be consumed without danger, and with limited risk of contact with social difference" (Jones and Sanyal 2015:2 citing Stevens and Dovey, 2004:359).

At the core of the concept of the spectacle is contradiction between novelty (to feed consumption) and homogeneity (of image saturation) (Gotham 2005; Woodworth 2015; Jones and Sanyal 2015). The spectacle starts with the novel but as the extraordinary becomes ordinary and shopping becomes "the chance to go and see what has become trite" (Debord 1994[1967]: thesis 168). The pseudo-events of the 'street' and the 'selfie' create a constant sense of ephemerality, compounded by the speed of changing images ("something new with every visit"):

"The pseudo-events that vie from attention in the spectacle's dramatizations have not been lived by those who are thus informed by them. In any case they are quickly forgotten, thanks to the precipitation with which the spectacle's pulsing machinery replaces one by the next (Debord 1994[1967]: thesis 157).

While Debord writes of this in relation to film, I would argue that the REIT provides another type of 'pulsing machinery' that replaces one image after the next. Charged with increasing yields, this pulsing machinery is seen in the frequency of AEI, but also in the statements by REIT managers emphasizing the need to constantly "refresh their properties" (Interviews 4 and 7, REIT manager CEOs). The tension between novelty and homogeneity is taken up in the next section.



// EVENTS



Figure 4.2: The street and the self(ie)

(Above) Simmulation of a Singaporean street. (Below) The spectacle of the self(ie). Sources: (Above) Yap, 8 September 2014; (Below) Jcube.com, accessed 12 October 2015.

4.3 Going with the flow (of feet): the spectacle's contours of contradiction in S-REIT malls

"At the end of the day the REIT manager is motivated by the shopper traffic" (Interview 1, Bank analyst).

An important feature of the urban spectacle that has emerged as a result of REITs in Singapore is the dominance the 'big guys', the major brands, across retail space in Singapore. In an environment where shareholders will complain if there is a slowdown or decrease in the dividend yield "only the big guys like H&M or Uniqlo will survive" (Interview 1, bank analyst; Interview 10, REIT marketer). These major brands have become successful by and large because REIT managers view them as 'anchor' tenants, which are those tenants that provide the best chance at increasing the shopper traffic, based on widespread consumer recognition—a recognition built by the image production and proliferation machines of corporate marketing which continually reconstruct them as 'hip brand names.' This is a particularly important technology of the spectacle (Gotham 2005). The consensus in the interviews suggests that the major result of this is the exclusion of smaller, 'mom and pop' retailers from REIT malls, as they are more sensitive to the compounding rental increases made by REIT managers (Interviews 1, 4, 9, and 10). A REIT marketer (Interview 10) put it this way:

"... if the rental rates continue to rise the mom and pop shops will not be able to afford to remain... This is probably bad for the retail market, because there is no longer anything unique or special, which actually will hurt these malls in the long term. It makes no difference between Tampines and Raffles City. 57"

But as this strategy of seeking big name brands to draw in traffic numbers proliferates through the urban system of the REITs (see Figure 4.3 below), the spectacle of the recognizable brandscape transforms malls and urban space into a homogenized form.

⁵⁷ Tampines and Raffles City are both owned by CMT.

More of the same?

Shop Name	Westgate	Bedok Mall	Orchard Gateway	Suntec	Kallang Wave	JEM
Accessorise		х				Х
Bering	X			X		
Braun Buffel	X			X		
Charles & Keith		X				X
Cotton On		х				Х
Crabtree & Evelyn				X	9	Х
Dockers				X		Х
Dorothy Perkins		х	x			Х
Ecco	X			X	7 1	
EpiCentre				х		Х
Etude House		X				х
H&M				X	х	
Holland & Barrett	x	х				
L'occitane	X			X		
Lowry's Farm				X) i	Х
Miss Selfridge						
Pandora	X			X		
Poulet	X	х				
Sembonia	X	x				
Sephora				X		X
Swatch			X	X		Х
Thefaceshop		х		х		
Tim Ho Wan	×	х				
TM Lewin	x			х		
Under Armour			х	х		
Uniqlo		х		X	X	Х

Figure 4.3: The S-REIT 'brandscape'The 'brandscape' in recently opened S-REIT malls. Source: DBS Vickers 2014:11

When I conducted my interviews, there was little sign that this homogenization had resulted (yet) in reduced shopper traffic numbers (strategic locations certainly help mitigate this), but REIT managers were expressing frustration with the increasingly competitive environment and a desire to seek out more creative and novel AEIs to differentiate or distract from the commodification of the malls. In large part the commitment to larger brands is a result of institutional memory. There are few alternatives. In part, this is a result of their own doing in providing a hostile environment for potential upstarts in need of flexibility. It is for this reason that usually a turn away from big brands (who often take up a large amount of space) means a

turn towards smaller, more standard retail units and the flexibilization of lease structures, such that retailers can be more effectively disciplined if efforts to draw in greater traffic do not achieve increases in income and rent. This is clearly in effect in the J.Avenue AEI, but that AEI also points towards an increasing creativity with regard to the technologies of the spectacle employed by REIT managers. Importantly a turn towards drawing in consumer bodies into the spectacle through their own 'participation' has become an increasingly important strategy. As the brandscape of Singapore is increasingly homogenized by REITs, REIT managers turn to ever more spectacular deployments of art, architecture, and events—creating an ever-evolving spectacle of distraction. This entails prolonging the time an individual is on a particular property in the hopes that "you will eventually pull out your wallet" (Interview 1, bank analyst). In practice this takes form in the language of REIT industry actors as the creation of 'experiences':

"it's all about the experiences ...shopping is increasingly challenged by e-commerce, but you still need the shared experiences with your friends, hang out for a show, movie, a game, so you are seeing malls change their structures more towards their communal spaces, dining and activity ...This institutionalization of the retail market [with REITS] has driven these transformations in the market place" (Interview 9, property consultant, emphasis added)

You see REIT managers altering the structures of their malls to create urban spaces that are ever more entertaining and spectacular. The results of this are on display in Figures 4.4 and 4.5 (below), which provides a mosaic of the spectacle that REIT managers have created in VivoCity. The irony is that as REIT managers attempt to deploy the spectacle to attract Singaporeans to their malls through 'experiences', the greater the chance there is that Singaporeans will use such spaces for alternative means. The overlaps of logics from financialized property managers and the urban spectacle create a variegated urban experience of novelty and homogenization.

⁵⁸ VivoCity is owned by MCT.













Figure 4.4: Experiencing the spectacle (part 1) Source: MCT *Annual Report* 2014, pg.19.

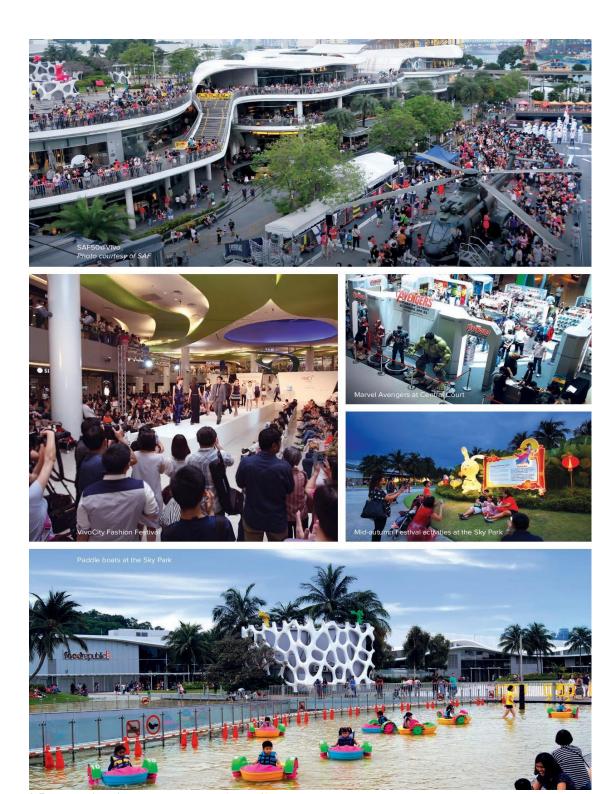


Figure 4.5: Experiencing the spectacle (part 2) Source: MCT *Annual Report* 2014, pg.19.

4.4 Sustaining financialization through the urban spectacle

The empirical evidence provided by interview respondents highlights the multiple dimensions and interdependencies of financialization and spectacle in Singapore's retail landscapes. The S-REIT shopping mall has become a central and dynamic site of the urban spectacle in the everyday landscape, and the proliferation of malls has created a nearcomprehensive urban system of enclosed retail spaces that are carefully orchestrated for consumption and spending. Intensified competition, and the constant threat of the latest new retail destination becoming a familiar, routine commodity, have driven REIT managers to ever more sophisticated technologies of spectacle (Gotham 2011). The simulation and scheming innovations used in the 'spectacle of the self' endeavor to bury the practices of shopping and spending ever deeper into the social relations of the everyday, most vividly through the 'Social Wall' to enroll consumers into a participatory, individualized experience that conceals the intimate colonization achieved by retail and real estate capital. And yet while the 'selfie spectacle' pushes capital and consumption to the scale of the individual shopper, the competitive overload of the information society requires a much broader scale of brand recognition amongst vast populations of consumers: this is why so many of the interview respondents emphasize that REITs generally prefer the large, established, recognized brands in their properties. The common spaces are enhanced to stimulate the 'demand' for 'experiences' rather than just a place of business. The built form then embraces the new and outlandish, while there is little space for the mundane or the 'mom and pop' shop. All of this is to achieve a greater number of feet on the property through the provision of *spectacle*. That the spectacle emerges from spatial liquidity occurs in the practical operationalization of AEI, which constitute a transformation of the spatiality of property in its entirety from layout to the material qualities (aesthetics and

architecture included). The focus of this analysis was on the interaction between the spectacle and financialization. As a result individuals' reactions to these processes did not garner the same level of attention, such that at times they appear to be completely beholden to the processes of the REIT spectacle. I sought to mitigate this by suggesting there are moments of resistance in the waning efficacy of the spectacle. Further the rapid acceleration in the number and scale of AEIs suggests that resistance occurs with far greater frequency than my evidence would suggest. Thus the spectacle should be understood as an urban process of contestation (Chu and Sanyal 2015).

Both Debord and Lefebvre shared the understanding that capitalism could not be reduced merely to the 'pure' logics of capital. The spectacle reveals just how "art, architecture, and culture emerge as an operative rather than merely ornamental feature of financial capital" (Moreno 2014:263-264). Working upon the spatial-cum-financial metric of foot/shopper traffic counts (Interview 6, REIT auditor) the spectacle accelerates the accumulation of this value and thus encourages the development of spatial liquidity. This is operationalized through the use of foot/shopper traffic as not only a 'measure' of spatial liquidity, but further as a disciplinary tool for extracting rents (exchange value) from users of the mall (property).

Ultimately, I argue that financialization is a contributor to the urban spectacle, but that within the space of retail managed by REITs the urban spectacle becomes mobilized as the means by which that financialization is sustained. This is particularly true given that ultimately the REIT is dependent upon the extraction of capital from its *users* despite the treatment of property otherwise. In effect the urban spectacle is folded into the processes of urban financialization by REIT managers. The REIT then can be posited as a securitization of the spectacle as much as it is of property.

Chapter 5: Conclusion: Singapore's securitized spectacle and the politics of 'mundane' finance

5.1 Summary and implications

In this thesis I explored several intersections of financialization, urbanization, the real estate/financial nexus, and spectacle urbanism. I was especially concerned with how finance and real estate had been integrated into singular markets through a particular financial instrument known as a real estate investment trust (REIT). The focus on REITs, in turn, led me to examine 'urban process(es) of financialization', the role of 'physical materiality' in the treatment of property as 'pure financial asset', and the impacts such processes have on our cities as overlapping ecologies of capital, calculation, and culture. This last topic emerged from bringing together urban financialization with what I called "spectacle urbanism." That intersection offered a theoretical entry point for understanding how cultural production and consumption were co-produced within contemporary finance-driven economic activity (at least in Singapore). The intended goal of this thesis was to cut through the 'fictitious distance' between the 'real' geographies of everyday life (on the ground in Singaporean retail spaces) and financial markets in Singapore by taking up the challenge to "demystify global finance and render transparent the concrete materiality of the relational economic geographies that make up our financial world." (Pani and Holman 2014:231; Wojcik 2012). In what follows I address three themes central to this work: 1) urbanizing financialization, 2) overlapping ecologies of capital, calculation, and culture and 3) and the shifting geographical scales of financial capital.

Chapter 1 provided the historical and theoretical context for the thesis. The integration of financial markets and real estate has been of interest to scholars since the late 1980s and early 1990s (Ball 1986; Haila 1988; Cloakley 1994; Pryke 1994), but the Global Financial Crisis

revealed just how dangerous this 'nexus' had become (Aalbers 2012). Financial investors fled real estate and they fled from the financial products that were deemed most responsible for the crisis. Meanwhile homeowners were left to carry the losses. Yet, as Chapter 1 suggested, in the almost decade since the crisis, real estate has quickly regained its allure to financial investors. One such market is for REITs, which saw a nearly four-fold increase in investment globally. In Singapore this growth was even greater. There has been little work on REITs from a critical perspective with the exception of Gotham (2006). That analysis emphasized two vital concepts that have been carried through this entire dissertation. First Gotham's work perceptively identified the theoretical importance of the financial concept of 'liquidity' in transforming real estate markets. At an empirical level this was confirmed in the political-economic analysis of the REIT market's emergence in Singapore. The state justified local REIT markets for their role in producing 'secondary market liquidity'. It considered this necessary for the further development of Singapore as a global financial center (Singapore Budget 2005).

Consequently, Chapters 3 and 4 were fundamentally investigations of liquidity, unpacking how liquidity was brought into being (through its performance) and how it impacted urban space in Singapore. The second concept was the issue of physical materiality of property. Gotham underappreciated the significance of REIT's *direct*, *physical* control of property through the REIT manager. This is by and large what distinguishes it from MBS, its larger sibling in the real estate securitization environment. The control of property was discussed in Chapters 3 and 4 as the enactment of spatial liquidity and its interwoven position within practices of urban spectacularism respectively.

Chapter 2 began with an illustration of how the Singaporean REIT market is a process of financialization. The introductory comments of the real estate consultant (Interview 9)

articulate just how 'logics of finance' embedded in financial metrics and materialities narrow the terrain of the possible with property. In other words, property, containing a near infinite variety of use values and an exchange value, is increasingly only viewed for its narrow exchange value. All too often this process of financialization is rendered as a universalizing condition (Engelen and Koinings 2010). This was not the case for Singapore, however. First, REITs only control about 20 percent of the total real estate market. In retail, S-REITs control 34 percent of the market (DBS Vickers 2014). Despite these limited share sizes, financialization is impacting those Singaporean places that constitute some of the most important everyday public spaces on the Island —urban retail spaces (largely shopping malls) that sit atop the structures of everyday circulation (MRT stations) in the city-state. That these spaces might encounter forces of change offers great reason to open up the REIT process. It also highlights the importance of viewing financialization as an 'inherently spatial phenomenon' unfolding across space in variegated ways (French et al. 2011). If this thesis has argued anything, it is that what appear as unimportant or minor processes (i.e. the growth of the Singaporean REIT market) can in fact have an outsized effect.

What has been missing in the existing work about REITS is an understanding of the *constitutive* (or operative) role of space in financialization. How do urban processes react back on financialization? This was the key problem identified in my review of the existing literature on financialization in Chapter 2. To address this problem, I argued that *urbanizing* financialization was necessary (and strategic) for understanding the spatial dynamics of financialization.⁵⁹ Likewise, I suggested, it is also necessary to understand the spatial dynamics of REITs, constituted by stretched social relations across multiple scales from the micro spaces

⁵⁹ This built on the view that contemporary modes of capital accumulation are increasingly of the urban kind (i.e. planetary urbanism). It is the strategic starting point as property is essential to the urbanization of capital.

of the portfolio shopping malls to the macro spaces of securities investment flows (financial liquidity). Finally, my review recognized the multiple ways in which financialization was studied from various intellectual approaches, as well as the *value* each provided. These differing approaches enabled recognition of the multiple ecologies of urban financial capital, calculation, culture, and state practice.

In their work on the financialization of the environment Bansal and Knox-Hayes (2013) argue that finance scholarship has failed to discriminate between the socio-materiality and physical materiality of finance, causing scholars to misrepresent the time-spaces of finance. Arguably this is what results in the articulation of global finance as itself a universal and disembodied phenomenon, washing over spaces, but left unchanged by them. Chapter 3, however, takes finance's treatment of materiality seriously. As illustrated in Chapter 1 and 3, financial actors work on the basis that property can be *made* liquid, or, like money, circulate. Many scholars, (influenced by financial theory) think this liquidity is something real and out there. In fact, even much of the geographical literature takes liquidity for granted (i.e Lizieri and Pain 2014). Christophers challenged this by demonstrating the need to 'perform' the representational mystification that property is separated from its value-in-use to be able unlock value/produce liquidity. 60 But as the work in Chapter 3 reveals, the practicalities of financial investment suggest that financial actors actually desire property that is liquid. REIT managers in Singapore actually perform liquidity into being not just through a discourse, but in its calculation—a calculation that enrolls the physical property alongside its discursive construction. This enrollment results in REIT managers materially transforming property in a process I described as 'spatial liquidity'.

⁶⁰ The operationalization of this 'representational mystification' is left rather under-discussed.

This point leads back to 'urbanizing financialization'. Certainly the expansion of REIT management of urban space in Singapore constitutes a financialization of urban (retail) space. The expansive portfolio building of S-REITs is just one manifestation. But if the analysis ended there it could have been easily dismissed as one among many in the recent 'explosion' of work on urban financialization which merely affirms its existence (Gouironnet et al. 2014). The empirical work illustrates just how financialization, through the treatment of property as a financial asset (brought about through calculation), materially alters urban space. It also suggests how financialization might be understood to be constituted by calculation as a set of spatial processes at the scale of the urban (i.e. spatial liquidity). And it is here that the thesis challenges this literature by being an empirical example of the operative role of space. Alterations to urban space are rendered as necessary to carry out financialization scripts.

The empirical evidence provided by interview respondents highlights the multiple dimensions and interdependencies of financialization and spectacle in Singapore's retail landscapes. That the spectacle is enhanced by spatial liquidity occurs in the practical operationalization of AEI, which constitute a transformation of the spatiality of property in its entirety from layout to the material qualities (aesthetics and architecture included). The spectacle reveals just how "art, architecture, and culture emerge as an operative rather than merely ornamental feature of financial capital" (Moreno 2014:263-264). Ultimately, I argue that financialization is a contributor to the urban spectacle (accelerating the spectacle of the shopping mall), but that within the space of retail managed by REITs the urban spectacle becomes mobilized as the means by which that financialization is sustained. Its independent existence outside of financialization is theoretically productive. This means the spectacle is an urban process that works back on financialization. In other words, while most scholars of the spectacle,

following Debord, narrate the process by which the spectacle emerges as a result of commodification, this analysis flips the loop the other way to suggest how the spectacle sustains a particular type of commodification: financialization. Furthermore, the spectacle draws attention to how the financialization of property is sustained through the extraction of capital from consumptive bodies flowing through space (foot traffic). This signals the interdependency of spatial liquidity and the spectacle.

In the literature review I asserted that an ecological perspective would be taken. This has largely been an implicit practice rather than overt. The thesis fragmented financialization into subsystems. Chapter 3 focused on the ecology of calculation, or the specific social and spatial arrangements that constituted the calculative apparatus of liquidity in a REIT. While Chapter 4 focused upon the acceleration of the spectacle, a process which can be identified in the overlap of ecologies of financial capital and cultural production. Financialization then cannot be reduced to any singular or 'essential' logic. Likewise, the spatiality of financialization has no predetermined course, but is the result of the articulation of these differing ecologies with one another. The value of this approach, French et al. (2011:812) write, is that "it becomes possible to identify individual points of leverage, ways into the system, and avenues of intervention". I argued that the way into financialization was through the analysis of property (Harvey being the starting point), which is materially constituted by the REIT ecologies of calculation and spectacle.

And finally, I return to the notion of scale. On the one hand the analysis sought not to be trapped by a scalar analysis: hence the primary interest in what I called 'urbanizing financialization'. Nevertheless the analysis traversed multiple intersecting scales from the global REIT market to the bodies that make up the foot-traffic traversing the properties of the REITs.

As Singapore is a city-state that is fully urbanized and spatially constrained its national and local/urban scales are effectively juxtaposed in what Olds and Yeung (2004:507) call the *UrbaNational* scale. 61 The result of this is that unlike other urban areas which have to compete within national territories for resources, Singapore does not. Its primary advantage is that its unified governance gives it the "political capacity and legitimacy to mobilize strategic resources to achieve (national) objectives" (ibid: 508). Subsequently, once the state had decided that the REIT market was a viable pathway (among many) to further develop itself as a financial center, it was able to mobilize resources beyond just legislative authority for REITs to 'guarantee' its success. The most important of these actions was to wield its influence through governmentlinked firms to make the market more 'liquid' by offering more properties for REIT managers. As a result connecting REITs to the urban scale is relatively straight forward, while in other economies REITs must operate in far more complex environments. REITs in other major markets have also remained nationally focused, while the Singaporean REIT market has strategically sought to construct a 'global' REIT market. The implications of this would certainly require more research (see section 5.2). However, REITs also crucially mediate the rescaling of social processes of calculation and capital, appropriating the flows of bodies into property-scaled financial measures to rationalize specific practices of city-wide property management. Further the analysis has illustrated how 'global' finance is in part relationally constructed through the practices and relationships between bodies (shoppers) and spaces (including spaces of retail property and financial markets) in time. The work presented in this thesis forces us back to where we started with Gotham (2006) to reassess the supposed assuredness of property's 'fixity'. While, property cannot ever be 'moved' dirt and all, financial markets do not merely represent a

⁶¹ They are the first to admit that it is and awkward term. But perhaps the awkwardness also demonstrates the awkwardness with which city-states sit within common norms of understanding scale which follow from nation-states with large hinterlands.

financial alchemy of movement and exchange. Instead the 'fixity' of property is pulled, prodded, and stretched to its limits (i.e. spatial liquidity).

5.2 Further research directions (and some omissions).

Not only does this thesis traverse scales, but it also traverses a diverse set of actors, including the state, financial investors, the REIT manger, individuals/shoppers, tenants, sponsors, bank analysts, brokers, auditors, etc. With the focus placed on the REIT manager because of their critical importance to the very functioning of the REIT, it was inevitable that some important actors would get unfortunately overlooked. First, the most important of these is the state. At the risk of overstatement, part of its invisibility in much of this thesis is a result of its impenetrability. With a highly professionalized techno-bureaucratic government, it's hard to interview state officials in Singapore and obtain anything but the 'party line'. The state does get mentioned in Chapter 1, particularly with regard to the early history of the REIT market. This is signposted by its developmental role in strengthening the city-state's financial center status through REIT development. This could and should this be taken further, beyond the literal margins of this thesis. Because REITs involve property investment, the state plays a key role in many of the practices highlighted, including portfolio selection and AEI. For example one REIT manager CEO (Interview 4) discussed the role of the government in site selection (portfolio building):

"In Singapore, it's a unique market because the government controls all the land. Tomorrow they could authorize a mall in [a neighboring] location [to a REIT owned property] and the rents would be different. Obviously, government policies have a big impact. So you have the Master Plan. [...] So you know what the neighboring plot will be. But the government may not tell you when this will happen. They usually give a one year visibility. So there are sites that are reserved and confirmed. Confirmed there is a definite timetable, reserved there is no definite time, and some not even in the list. So you have a fair amount of visibility. But government policy can change. You can never know the future."

Second, the thesis largely relied upon the interviews of actors with a vested interest in the success of the REIT market. This was because the purpose of the research was to open the 'black box' of REITs, to expose their internal workings. This inevitably set the direction for the thesis. In the case of the tenants, their absence in part reflects their vulnerability. I felt that it would be unlikely that in the short time available to me for field work I could develop the trust necessary to get frank conversations. As a researcher I could be seen as a potential threat (more annoyance) by REIT management. Furthermore, their vulnerability puts in them in a position of less power compared to the REIT manager. I recognize one of the unintended impacts is that in understanding the impacts of REIT management, individuals experiencing these spaces come off as 'dupes' to the spectacle. However, I qualified this by discussing how the spectacle itself gets commodified and its efficacy wanes. This is in part because people resist the distractions of the spectacle. The spectacle becomes mundane and the REIT manager has to find a new set of 'images' to perform the same task. A study of how individuals contest the spectacle or contest the actions of the REIT manager in the retail spaces of Singapore would be a logical next step. A particularly fruitful avenue would be to develop the concept of 'malls without stores' (Miller 2014) which attempts to conceptualize the resistance of shoppers to enact their given consumer scripts in malls, as they treat them as non-commercial spaces. As such, this work should not be seen as an endorsement of depictions of consumers as 'dupes', a criticism of Debord, but for understandings of the spectacle as a process of contested and variegated urbanism (Gotham 2011; Chu and Sanyal 2015; Woodworth 2015).

Third, another fruitful avenue for research concerns the role of the REIT in reshaping the wider political economy of (new build) urban development in Singapore.⁶² This develops from the view that REITs are primarily not to the benefit of the tenants, or even to shareholders, but as

⁶² In Singapore the process of urbanization is characterized by intensification and densification of Singapore.

part of extended development pipelines for recycling capital—that is, to release funds for new development by the sponsor (Interview 2, bank analyst; Interview 7, REIT manager CEO; REDAS). This would explain the reason sponsors take large shares in the ownership of the REIT and give the REIT "first right of refusal" regarding the acquisition of the sponsor's properties (Interviews 4 and 7, REIT manager CEOs). Does this alter the kinds of properties sponsors construct? Sponsors are often development companies that also are the major owners of the REIT owned mall's closest competitor—the single owner mall. Does the relationship between sponsor and REIT imply a convergence in the spatial structure of these properties? Furthermore the existence of a government-linked sponsor often contributes to the performance of liquidity (Interview 7, REIT manager CEO), as the lack of a sponsor makes a REIT more risky. 63

5.3 Politics of the mundane

This thesis began with an encountering of the 'REIT' in a public plaza in Singapore. By this point in the thesis the reader will have gone well beyond such a simple encounter. The question that needs to be answered is quite simple. Why do all this? Why open the 'black box' of a REIT? Yes, REIT markets are growing, but they still remain relatively small. And the critical literature has all but ignored them. There seems to be no urgency. There has been no REIT crisis (yet!). In short REITs have become mundane, but it is in that very mundanity that the danger resides.

Let's consider recent events in Singapore. In March of 2014 several Members of Parliament voiced their objections to the growth of REIT property management, and government relinquishing control over property to which it otherwise holds legal title (Lee 2014). Principally

⁶³ During the financial crisis, the one REIT that came close to failing did not have a sponsor that was an active company. Its sponsor was a shell company. Before it failed it was acquired by a private developer and rebranded and relaunched under their sponsorship. The REIT manager (the former banker in charge of the acquisition of the REIT) argued that the lack of a sponsor was part of the reason it struggled to refinance or acquire better properties (Interview 4, REIT manager CEO).

these debates revolved around the concern that REITs have led to excessive increases in rents.

One MP argued that the divestment policy of properties from state-owned and state-linked firms (to REITs and other property funds) was "a mistaken policy" (Lee 2014). The debate was further compounded by disagreement among local economists (worth quoting at length):

"Some economists agree that Singapore has over-embraced its free market approach and needs to recalibrate, *especially with the proliferation of real estate investment trusts (REITS)*.

Irvin Seah of DBS, for instance, feels *that Singapore has overdone what it set out to achieve* and should backpedal. He believes that a sizeable amount of commercial and industrial property should come under government control to serve as a benchmark for the market.

"Right now, what we have is an oligopolistic structure, with a small group of players in this market, which makes it *prone to price rigging*," he said.

"It is not so much about bringing prices down, but about ensuring that we have a lever on certain scarce resources (such as land). The REIT model may work in big countries with ample land but less so for land-scarce Singapore."

Yet, others found Mr. Singh's suggestion too "drastic" and "excessive". They warned against being too quick to point fingers at REITs as the culprit for rising business rents. Rather, they suggested that it could be a case of supply lagging demand.

CIMB economist Song Seng Wun said: "Everyone forgot while squabbling on the ground level who's to blame, but if you take a few steps back, it is because there is plenty of demand for space out there. Economics 101: this allows landlords to yank up rentals." (Lee 2014, emphasis added).

The government responded swiftly to these debates. By the end of May that same year, the Ministry of Trade and Industry (MTI) had published a 'study' entitled, "Have REIT acquisitions lead to an increase in retail rents?" (MTI, *Economic Survey of Singapore First Quarter* 2014). In a mere 7 pages they claimed that "no, the introduction of REITs had not lead to statistically different rents between REIT owned and non-REIT owned malls". Within weeks much of the uproar had died down, and now the only press REITs get are when they report their financial results and when they commence asset enhancements. This has become so mundane that such

reports rarely register a notice.⁶⁴ And just a few months ago, MAS announced the result of their REIT market 'consultation' by offering, in their own words, 'greater flexibility' to REITs operating in Singapore. The state increased their development limits from 10 percent to 25 percent of the value of the properties and increased their gearing ratio (a measure of their total debt to value) from 35 percent to 45 percent.⁶⁵ In effect what the Singaporean Government has attempted to do is de-politicize the REIT market. And perhaps more strategically⁶⁶, render REITs in the language of Ranciere (1999), or more accurately Zizek (1999), 'postpolitical' whereby any political questions over REITs as financial actors has to be progressively displaced by a more conspicuous concern with practical or technical issues that enhance the development of the REIT market and make REIT manager's jobs easier.

There is an important caveat to MTI's findings. They are only true if the features which make up the REIT (those indicated in this thesis) are 'controlled for' or excluded from the analysis. They actually do report rental increases of 20 percent and 9 percent for REITs, and single-owner malls respectively over the year. However, the empirical chapters of this thesis reveal why this would be a mistake, for these features are not just incidental but intentional actions by the REIT manager to rationalize increases. As Mackenzie (2009:179) has argued, global imbalances are certainly important but so too are the 'technical details'. Ignoring these details, or allowing them to be rendered 'postpolitical' risks creating a more unequal world (Allen and Pryke 2013), a world that potentially creates a spatial mismatch between the economic spaces we need and the economic spaces we have. This is the greatest risk of urban

⁶⁴ The major newspaper *Straits Times* publishes promotional materials for many REITs, including the one its parent company, Singapore Press Holdings, is the sponsor for: SPH REIT.

⁶⁵ It should be noted that there is one area of REIT regulation that the state has been more receptive to political questions. Industrial REITS face stricter requirements regarding rental increases. This follows from the state's long held interest in supporting small and medium sized enterprises in Singapore.

⁶⁶ And at this point, it is perhaps still speculative.

financialization in Singapore. By attending to what is inside the 'black box' of the REIT, by making it a little less mundane, this analysis opens up the possibilities and practicalities for intervention. In Singapore this is complicated by the 'depoliticization' of REIT markets, but shared with the right person there is still some room for action. Outside of Singapore the case for intervention is easier to make. And greater attention should be paid to REITs, particularly as REITs further the 'globalization' of real estate through transnational portfolio expansion (Gotham 2006). This is the best way to activate the political subtext of Wojcik's (2012) call to render transparent finance's concrete materiality. It's probably best we do this *before* we lose our life's savings in the next crisis. The question then becomes: what does a more equal world look like?

⁶⁷ It has been argued that Singapore's government is a form of "consultative authoritarianism" in which professional and economic elites are co-opted into state institutions to enable the smooth operationalization of economic policies and developmental programs (Rodan 2012). The use of consultation papers, such as recent REIT market consultation, is an opportunity for intervention, albeit a highly controlled one. Change, when it happens, often emerges out of the public eye after years of discussion. The consensus politics typical of Southeast Asia, characterized by the fear of losing face is perhaps a contributing factor.

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Appendix: Table of interviews and observation sites

Interview/Observation	Location	Date	
Interview (1) of bank analyst	Starbucks outside MRT station at	June 10, 2014	
	Raffles Place (located in OUE		
	Commercial REIT)		
Interview (2) of bank Analyst	Conference room of Bank	June 12, 2014	
Interview (3) of institutional	Meeting room of investor's office	June 18, 2014	
investor (no direct quotation)			
Interview (6) of auditor	Restaurant, Junction 8 Mall	June 20, 2014	
	(CapitaMall Trust)		
Interview (4) of REIT	Conference room of REIT	July 3, 2014	
manager CEO	manager's office		
Interview (5) of REIT	Conference room of REIT	July 3, 2014	
manager investor relations	manager's office		
representative			
Brokerage firm presentation	Raffles Place	July 17, 2014	
on REITs and interview (8)			
Interview (7) of REIT	Coffee shop below the Marina Bay	July 21, 2014	
manager CEO	Financial Centre		
Interview of Brokerage (10)	Food Court of Raffles Place	August 14, 2014	
marketer			
Interview (9) of real estate	Ion Mall (Orchard Road)	August 12, 2014	
consultant			
Observation of Tangs	Orchard Road (Strata-owned mall)	July 9, 2014	
Shopping Mall			
Observation of Vivocity	Harbourfront MRT station	July 10 and 20, 2014	
	(Mapletree Commercial Trust)		
Observation of Junction 8	Bishan MRT station (CapitaMall	July 15 and 23, 2014	
Mall	Trust)		
Observation of Plaza	Dhoby Ghaut MRT station	July 14 and 27, 2014	
Singapura	(CapitaMall Trust)		