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Masters' Research Report:

Alternative Funding Models for Redeveloping Inner-City Brownfield Real Estate in South Africa

(Thesis Submitted in the Fulfilment of the Requirements for the Degree of the Master of Management in Finance and Investment)

Elliot Marsden – 380596

Master of Management in Finance and Investment (MMFI), 2015/2016

Submitted to Wits Business School, University of the Witwatersrand, Johannesburg

Supervisor: Professor Kalu Ojah

Abstract

South African inner-cities, through a series of political cycles, social transformations and shifts in local government structures, have undergone significant physical change in a deteriorating direction. This change has largely manifested in the dilapidation of inner-city real estate stock, in that brownfield buildings, or buildings with former residential, commercial and industrial functions, have been re-appropriated for alternative (often illegal) uses that have potential consequences for redevelopment efforts. Many of these buildings, however, have implicit potential for redevelopment and, through the sourcing of necessary capital, may be restored and rehabilitated to better serve inner-city inhabitants and stakeholders.

Despite this, the South African real estate financing methodology has largely remained unchanged, with the purchase of physical property being governed by typical pro-rata equity requirements and debt provision. Such a model predominantly protects the interests of large financial institutions and disqualifies certain projects from these institutions' scope of lending. Consequently, this scope excludes higher-risk projects, such as those located within the inner-city, from obtaining the funds required for redevelopment. Moreover, 'everyday' investors have conventionally been excluded from higher-yielding and larger real estate opportunities due to equity requirements and surety obligations, which only these same institutions can meet.

What if, however, an alternative funding model could be identified and applied to inner-city real estate redevelopment? Functioning as a platform that democratises real estate funding, this alternative would not only provide previously disadvantaged upstart developers necessary capital, but also afford lower-capitalised investors an opportunity to invest in higher-yield real estate opportunities that were previously inaccessible. Moreover, this platform, which can serve as an intermediary for the exchange of capital funds between developers and investors, will accelerate the redevelopment of inner-city real estate as a social investment catalyst.

The report's literature review encompasses an exploration into the South African inner-city condition, as well as the notion of 'brownfield' real estate. It extends to address South African real estate finance conventions and the processes/protocols that have long governed lending practices. Furthermore, and critically, the review continues by analysing the practice of crowdfunding, and its appropriateness as an alternative real estate financing mechanism. Lastly, an analysis of two precedents provides a working basis from which to evolve a potential equity or debt crowdfunding model for funding inner-city redevelopment ventures.

For a qualitative source of data around the feasibility of such an alternative funding mechanism, a survey and series of interviews were conducted. The interviews allowed for an engagement with individuals within the South African built environment industry regarding their views around the proposed alternative. The survey presented, through a series of multiple-choice and paragraph inputs, respondents' willingness to invest into such a financing mechanism, potential capital amounts to be deployed, and broader sentiments towards inner-city redevelopment. For a quantitative analysis of data pertinent to this study's thrusts, a series of simple simulations explored the equity and debt structuring potential for this study's alternative financing model - crowdfunding.

The findings of this study suggest that crowdfunding, as alternative financing mechanism, could be successful in resurrecting inner-city real estate stock in South Africa's inner-cities, and thus contribute to the municipalities' social awakening and economic development.

Recommendations for future development that derive from this study include: the extension of market research, engagement with additional city development stakeholders and further simulation of potential crowd-financing models to innovate and/or establish better-suited products and markets for inner-city brownfield real estate.

Declaration

I, Elliot Marsden, declare that the research conducted and presented in this dissertation is my own work, except where otherwise indicated and referenced accordingly. It is submitted for the degree of Masters of Management in Finance and Investment through the University of Witwatersrand. This research report has not, either in whole or part, been submitted for a qualification to any other educational institution.

_____

Elliot Marsden

_____

Date

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Firstly, thank you to all that contributed to the qualitative components of this research report, your input was a valuable and indispensable component of this study.

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Lastly, to my brother, mother and father, thank you for your consistent perspective, encouragement and backing for all my endeavours, including this study. You have been an extraordinary support, for which I am most grateful.

List of Terms

Brownfield - 'Brownfield' refers to inner-city real estate (previously utilized for commercial and industrial purposes) that has become derelict or misappropriated for uses outside of its original function. These sites, however, possess redevelopment/market potential. A piece of industrial, commercial or residential property, within the inner-city, that is abandoned or underused, especially one considered as a potential site for redevelopment.

Crowdfunding - This particularly refers to the raising of funding (financing) from a collection of individuals for profit or non-profit ventures/causes. Or the practice of funding an idea, project or venture by raising monetary contributions from a large number of people, most often performed through online platforms.

Crowdsourcing - This refer to the process by which services, resources, and/or feedback are sourced from a collection of individuals around a shared venture.

Inner-City - This corresponds with areas within and around the city's central business district. Specifically, for the purposes of this survey and research report as a whole, the 'inner city' refers to the area located north of the M2 highway, south of the Witwatersrand ridge (which includes Braamfontein), west of Hillbrow/Berea, and east of the M1 highway.

Land Use - The programmatic (functional) municipal designation of a parcel of land, such as 'residential', 'industrial', 'commercial', 'mixed-use', 'open space', 'municipal', etc.

Real Estate – Also referred to as 'property'/'physical property, and these terms have been used interchangeably.

Redevelopment - The process by which 'brownfield' real estate sites (buildings) are remediated, restored and reconstructed for a new programmatic purpose.

REIT **-** As an abbreviation for a *Real Estate Investment Trust*, a REIT is a listed instrument within the capital markets (stock market).

Technology (in context) - While innovation has largely been absent from the real estate sector, technology, in this case refers to the integration of software algorithms and systems within the purchasing, leasing, development etc. of real estate.

CID – As an abbreviation for City Improvement District, CIDs designate areas in which property owners pay additional levies to contribute towards the improvement of decaying urban environments. Levies are primarily directed towards cleaning city districts and improving their safety.

UDZ - As an abbreviation for an *Urban Development Zone*(s), UDZ designate areas or precincts within the inner-city that municipal government have earmarked for particular development activity. It also described the incentive scheme aimed at encouraging inner-city renewal across cities in South Africa, whereby any tax-paying, property-owning entity (or individual) may claim certain tax benefits or write-offs within earmarked areas of the inner-city.

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Chapter 1: Introduction

1.1 - Description

The term 'brownfield' real estate refers to re-appropriated, dilapidated or decaying inner-city commercial and industrial real estate with the potential for viable redevelopment and adequate marketability (Davis 2002: 96).

In Johannesburg, an upward surge of office-to-flat real estate development beginning in the mid-2000s has demonstrated a consistent interest from real estate developers (and investors) for inner-city property, where buy-to-let investors can expect a highly attractive rental yield that competes with Johannesburg's northern suburbs (Muller 2013). Despite this and the specific efforts to redevelop brownfield (commercial and industrial) real estate stock, such as in Maboneng, Newtown and Braamfontein, large parts of inner-city real estate persist as non-performing and under-utilized spaces within Johannesburg's Central Business District (CBD). Although several socio-political reasons have contributed to the initial decay (through capital flight) and subsequent demand for the regeneration of inner-city real estate, two significant shortcomings has been identified as potential reasons for a less-than-optimum pace of inner-city redevelopment.

Firstly, developers of inner-city brownfield real estate are generally subject to conventional lending entities, as described by Collins and Ghyoot (2012: 51), and the speed with which their development (and permanent) financing is made available. Furthermore, these funding structures, prescribed by large commercial banks or other institutional providers, require stringent banking, credit and collateral parameters that may disqualify suitable developers from accessing necessary capital. Secondly, a shortcoming exists within the comparably higher cost of entry to property (or real estate) as an asset class, whereby the ability to invest in commercial redevelopment projects is often deemed inaccessible or out of reach for many low-capitalized investors (often considered as non-accredited). This, therefore, poses the question of how such redevelopment can be catalyzed or accelerated through alternative mediums/models of financing. As observed in the United States, companies, such as 'Fundrise', offer an alternative real estate capital marketplace (Fundrise 2015). This alternative is manifested through a medium referred to as 'crowdfunding', which as a term describes the means of sourcing small(er) amounts of capital from a large pool of investors to finance a particular venture, in this case, real estate development (Cumming 2012: 370).

As described by Fundrise's website and restated, the company aims to rethink real estate financing through a technology-driven intersection between real estate stakeholders and potential investors. The company considers its platform a completely novel way to raise capital and invest in real estate. By adopting the network effects of technology, potential investors and real estate companies can be aligned within one marketplace. Moreover, through a reduction in costs and increasing efficiency, Fundrise helps real estate companies raise additional money faster and also assists investors to earn better returns (Fundrise 2015). Unlike conventional financing mechanisms, crowdfunding raises capital through the accumulation of many investors' capital to fund upcoming development projects, while offering a range of low-to-high risk returns to those investors. Unlike REIT or property mutual fund investments[1], investors may have a highly specific choice of risk exposure and property class, as funds are invested on a project-by-project basis.

This presents an opportunity to address several crucial questions. Despite the risks associated with brownfield redevelopments[2], can crowdfunding real estate, however, be a workable model in South

[1] A Real Estate Investment Trust/(REIT), or property fund, generally operates as a listed security comprised of a range of real estate investments (Mills 2005)
[2] As a result of brownfield properties being subject to re-appropriation, decay and deterioration, and latter remediation, these developments are burdened with medium to high levels of risk. Furthermore, existing contextual challenges of crime, lack of access to services, traffic etc. add to the already present risk encompassed within potential brownfield projects (Davis 2002).

Africa's inner-city contexts? Moreover, through taking advantage of urban tax incentives and reorganizing public-private partnerships, can crowdfunding lead to an increased real estate investor base, and thus increase the access to capital financing? Finally, what if through quantitative and qualitative analyses, the research being proposed speculated a new financing model for accelerating the redevelopment of inner-city 'brownfield' real estate?

1.2 - Problem Statement

As a result of socio-political shifts in the mid-to-late 1980s, real estate investment capital was redirected from Johannesburg's inner-city (central business district) to northern parts of the city, such as Sandton and Fourways in search of higher returns. Despite several large banking and financial institutions maintaining their position and presence within the inner-city, many of the previously occupied residential, commercial and industrial buildings have since been misappropriated unlawfully and, subsequently, are in a state of decay or dilapidation (Mapetla 2008: 39). Nonetheless, these brownfield sites, despite their inherent risks, justify redevelopment through their location within a city environment and hence their access to transport, services, amenities etc. Hence, these clusters of real estate still retain their potential for marketability and are, in most cases, prospective investment opportunities.

As mentioned prior, this challenge of a slower-than-optimum redevelopment pace exists within inner-city developers' ties to conventional lending structures, as well as the inability for lower-capitalized entities to invest (or partake) in larger residential, commercial and industrial redevelopment due to a high cost of entry or lack of investment collateral (surety).

Critical to this research inquiry, is not a critique of there being a complete lack of redevelopment or funding, but rather a proposal for how such redevelopment could be accelerated through alternative means. Due to the real and perceived impediments to funding, a community, a city, and, by extension, a country could be experiencing a needless lower-than-optimum residential, commercial and industrial provision of real estate (informing a lower than potential welfare status).

1.3 - Research Objectives

From the preceding articulated shortcomings, the following systematic research objectives and/or hypothesis are designed to guide a possible resolution(s) for these existing financing challenges.

With reference to inner-city 'brownfield' redevelopment, the report will intend to:

- Explore an alternative financing model (crowdfunding) for accelerating inner-city brownfield redevelopments specifically, which will, in turn, explore new methods for introducing smaller development stakeholders into inner-city redevelopment,
- Assess the impact of tax incentive zones and rebates on the return performance of 'brownfield' developments,
- Explore the impact of government stakeholders (development agencies) and new opportunities for public-private development partnerships
- Assess the impact of regulation and risk on current lending/redevelopment practices
- Increase the theoretical base of inner-city redevelopment practices and return performance
- Assess the scope of existing development activity within South African inner-city environments

With reference to crowdfunding/alternative funding mechanisms, the report will intend to:

- Assess whether crowdfunding real estate can be a viable alternative for accelerating inner-city redevelopment, through an analysis of its performance metrics.
- Critique real estate crowdfunding as an investment alternative and its comparability to conventional funding structures (such as REIT or property fund vehicles)
- Explore the impact of accredited and non-accredited investors within fundraising for redevelopment
- Explore the regulatory and legislative boundaries that restrict crowdfunding/alternative funding mechanisms
- Explore the ease/difficulty of access to such investment platforms
- Assess the risk of such investment mechanisms, and explore new means for mitigating their implicit risks
- Explore means by which these mechanisms can accelerate the advent of start-up activity within the practice real estate redevelopment

In a summative context, with reference to the key themes of the problem-set flagged, the primary objective is an effort to seek alternative financing (capital raising) and development models for realising inner-city brownfield real estate redevelopment and restoration.

1.4 - Significance and Benefit of this Research

The proposed research report aims to provide an exploration into the existing inner-city brownfield context, and the redevelopment opportunities inherent therein. By focusing initially on redevelopment practices within South Africa and then addressing Johannesburg specifically, the report also aims to explore the macro and micro-economic factors that affect such development.

Through a mixed methodology of qualitative and quantitative data generation, the report aims to propose a new financing alternative for accelerating inner-city brownfield developments/redevelopments. Accomplished by researching already existing crowdfunding models within developed property markets, such as in the United States, the research base will attempt to customize and adapt a model that may provide an adequate/viable alternative for the South African real estate environment

Analysis into the role of local government agencies and the city's prescribed urban development zone framework will also be a significant output of the research base. By assessing existing joint ventures between public agencies, such as the Johannesburg Development Agency (JDA), and private developers, the research intends to explore how incentivized public-private initiatives may aid the performance of a financing alternative (such as crowdfunding). This will also hope to propose a working dynamic that expedites and accelerates inner-city redevelopment. Moreover, an analysis into the above mentioned existing UDZs, and their tax incentive structure, will explore their effectiveness and how an alternative financing structure could most-optimally leverage off of this benefit.

The research report will also address the effects of financing, lending parameters and regulatory restrictions, and how these may hinder the redevelopment of inner-city brownfield real estate. In doing so, the report aims to explore means with which these parameters can be reconsidered – and possibly reorganized – for the benefit of multiple stakeholders (and shareholders) through alternative financing. Furthermore, this research inquiry, through speculating an alternative financing/development mechanism, aims to accommodate the financing of large and established incumbents in the development industry, but also provide a platform for entry into the market by start-up development businesses.

Finally, this research inquiry, through rethinking real estate financing mechanisms, also aims to address how accelerating inner-city redevelopment of brownfield sites can catalyze greater socio-economic development/change.

1.5 - Overview of Research Methodology

The research methodology of this report comprised of both qualitative (survey and interview) and quantitative (simulation) components, hence taking the form of a mixed methodology. These mediums of data collection then informed the proposal for an alternative funding model(s) within the South African inner-city brownfield context.

1.6 - Research Hypothesis

Therefore, as elaborated upon above, what if, through qualitative and quantitative analyses, this research inquiry could explore the feasibility of an alternative (crowdfunding) financing model for initiating and accelerating inner-city brownfield redevelopment within South Africa's inner-cities?

Chapter 2: Literature Review

2.1 - The South African Inner-City

2.1.1 - Introduction

This body of research addresses and proposes an alternative funding model(s) for inner-city real estate redevelopment in South African cities, particularly within Johannesburg's inner-city.

The aim of this chapter within the literature review, however, is to describe the present physical condition of the inner-city and, most importantly, emphasize the necessity for accelerated building redevelopment and urban renewal, thus providing a contextual basis into which an alternative funding mechanism would be integrated. Another primary objective of this subchapter is to explore several planning, local management and incentive structures that have been initiated within South African cities, as well as their appropriateness and effectiveness in encouraging and expediting inner-city redevelopment.

This chapter also begins to address the notion of brownfield and its defining characteristics, describes the Johannesburg dilapidation/development sequence, explores the impact of urban development zones and tax incentives and, finally, investigates the role of public authorities and the success of particular redevelopment efforts thus far.

2.1.2 - South African Inner-Cities[3]

During the course of the 1980s and 1990s, South African inner-cities, particularly Johannesburg, Cape Town and Durban, entered into a cycle of dilapidation and decay.



Figure 1: Dilapidated Building in Johannesburg's Inner-City UDZ

Following the abolishment of the group areas act in 1991, former residents of the inner-city relocated to Johannesburg's northern suburbs. Simultaneously, many of those who were previously restricted access to the city (by the act) moved to inner-city precincts, such as Hillbrow, Berea as well as the central business district (Mafadi 2014). This resulted in a substantial entry and exit of inner-city stakeholders under a shifting political leadership and uncertain housing policy. Due to ineffective local management, weak administration and framework roll out, large portions of the inner-city were degraded as building were appropriated for alternative programmatic uses. Moreover, concerns of an exiting private sector at the onset of urban decay detracted investment from the inner-city, which further diminished efforts to accommodate the inner-city's new residents.

Despite the ongoing degradation experienced by specific pockets of the inner-city, several local agency and incentive structures have been established to counter urban decay and initiate redevelopment and restoration efforts.

[3] Wordpress. (2015). *Dilapidated: A Ruined Building in Downtown Johannesburg.* Accessed: 25th of March, 2016. Retrieved from: https://litazidepa.files.wordpress.com/2015/08/img_6801.jpg

2.1.3 - The Johannesburg Development Agency

> *"The agency acts as a catalyst for area-based regeneration as well as development of new nodes, investing in infrastructure and urban environment upgrades to encourage private sector investment.*
>
> *It also works on regenerating areas of the city that are either in decay or declining, in order to enhance their ability to contribute to the development of the city and the quality of life of its residents."* (Johannesburg Development Agency 2015)

Initiated in 2001, the Johannesburg Development Agency (JDA) was established with the mandate to restore and revive economic activity and development within Johannesburg and, more specifically, its inner-city. The JDA supports initiatives that address area-based economic development across the greater Johannesburg metropolitan municipality in support of Johannesburg 2040 (GDS), the City's Growth and Development Strategy (Johannesburg Development Agency 2015).

As a proponent of inner-city redevelopment, the JDA aims to, among others, redirect declining investment trends in dilapidated areas, support sustainable development partnerships, improve cooperation between city stakeholders, promote sustainable energy consumption, and develop economic potential in marginalized zones to promote the access to markets and employment (Johannesburg Development Agency 2015). Additional objectives include the creation of competitive and efficient business environments that pool together industries within strategic geographic areas to promote economic growth, and, through the development of strategic transit nodes and corridors, encourage effective land use and sustainable energy consumption/generation. One of the other primary objectives of the Johannesburg Development Agency, therefore, is the supporting of productive cooperation and partnerships between all stakeholders within these strategic areas. To be addressed later on in the subchapter, this organization of public and private relationships is critical to the redevelopment efforts of city stakeholders.

It is evident that an alternative financing and development mechanism aimed at redeveloping portions of the inner-city would achieve the most productive and beneficial outcome by working closely with the JDA. Such working partnership and developments should align with the agency's mandate and development aims.

2.1.4 - City Improvement Districts (CIDs)

As one of the two primary tools for urban regeneration, City Improvement Districts (CIDs) have contributed to the expediting of inner-city redevelopment within South Africa's inner-cities.

CIDs refer to areas of the inner-city within which a significant majority of property owners/landlords mutually determine and agree to finance both complementary and supplementary services in addition to those usually supplied by the city's local authorities. This is achieved through a legislation that permits the city improvement districts to raise an additional levy from all properties within the district (Housing Development Agency 2013: 14). Thus far, the CID framework has benefitted inner-city districts through improved cleanliness, security and management oversight.

2.1.5 - Urban Development Zones (UDZs)

As the second primary tool for boosting urban regeneration and renewal, the establishment of urban development zones (UDZs) has further accelerated and encouraged redevelopment practices within South African inner-cities.

Following the 2003 Revenue Laws Amendment Act, tax break incentives were made available for particular demarcated UDZs within the following cities/regions: Buffalo City, Cape Town, Ekurhuleni,

Emalahleni, Johannesburg, Matjabeng, Mbombela, Msubduzi, Nelson Mandela, Polokwane, Sol Plaatjie and Tshwane.

A UDZ identifies an area in which a tax incentive is aimed at expediting inner-city regeneration across cities in South Africa. The incentive takes the form of a tax allowance that covers an accelerated depreciation of investment when carrying out new developments or refurbishing existing property within the inner-city, over a specified period of the time (Housing Development Agency 2013).

Geographical Scope of the Johannesburg Urban Development Zone:

The Johannesburg UDZ, which only encompasses the metropolitan's 'inner-city', comprises of 1760 hectares of developable lands. The incentive, therefore, can only benefit from tax incentives when carrying out new developments or refurbishing existing property within this inner-city precinct (City of Johannesburg 2004: 1).

Encompassed with the Johannesburg UDZ are the inner-city's central business district, Newtown, Braamfontein, as well as the high-rise and high-density residential areas of Berea and Hillbrow. Additionally, lower-density residential zones surrounding the Ellis Park sports' precinct, such as Doornfontein, Troyeville, Betrams Judith Paarl, Yeoville and Bellevue, are included within the UDZ framework. Furthermore, the industrial and manufacturing zones north of the East/West M2 highway, from City West to Benrose, also form part of this zone (National Treasury Press Release 2014: 2).

Representation of the Urban Development Zones within Johannesburg's Inner-City:[4]

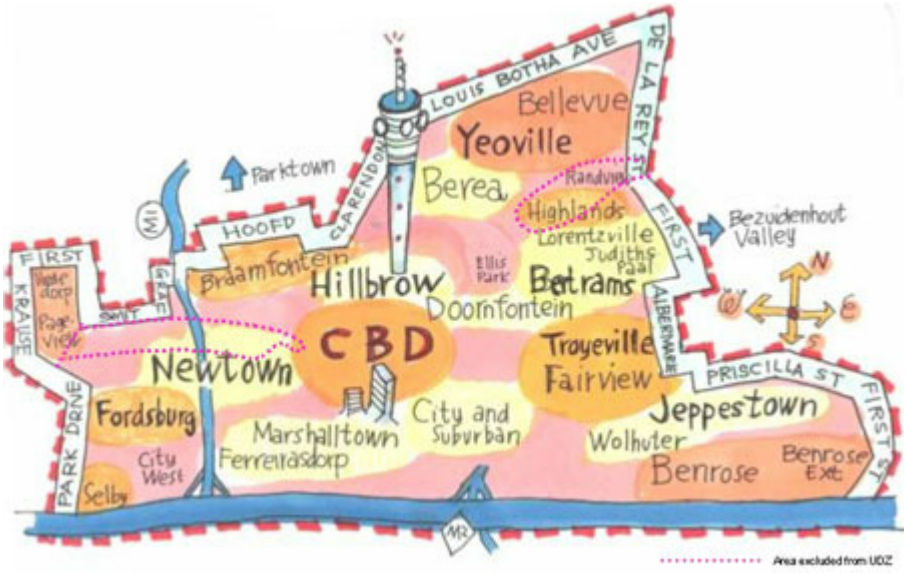

Figure 2: Johannesburg's Urban Development

It should be noted that although this urban development framework had been initiated to encourage new development and refurbishment activity, certain development stakeholders have not yet fully taken advantage of the incentive and, thus, further uptake is required. In 2013, national treasury announced the extension of the sunset clause of the UDZ incentive to March 31, 2020, from March 31, 2014, which allows for an extended window within which to apply for the incentive.

[4] Joburg. (2015). *Urban Development Zones*. Accessed: 24th of December, 2015. Retrieved from: http://joburg.org.za/index.php?option=com_content&task=view&id=120&Itemid=58

2.1.6 - Urban Development Zone Incentives Explored

Aim of the Incentive

The urban renewal tax incentive, which was launched in October of 2004, was implemented to stimulate development and investment within South Africa's urban precincts. The incentive represented an accelerated depreciation allowance to promote the inner-city redevelopment of sixteen large cities in South Africa. It was first disclosed in the 2003 budget, and then legislated in December of 2004 (National Treasury Press Release 2014: 1).

The incentive encourages the construction and refurbishment of residential, industrial and commercial buildings within selected municipalities' designated decaying inner-city zones. The mandate and vision for such incentive is to re-appropriate these areas into environments in which people live, work and are entertained – revisiting the former adoption/function of space that once existed prior to dilapidation and degradation (National Treasury Press Release 2014: 1). Furthermore, the objective of the incentive is to address the possibilities of catalysed/broader growth in surrounding areas, such as in new scopes of employment, and redefining the public perception and the image of the inner-city.

Broader Objectives of the Incentive:

The incentive provides a platform from which investors, both individuals and companies, can participate in the renewal and development of urban life and inner cities.

The scope of the UDZ framework extends beyond solely a tax deduction, as it also supports other incentive opportunities, such as policies to write-off existing bad debt from specific inner-city buildings in order to fast-track the selling, restoration and refurbishment processes. Furthermore, the incentive also supports the Department of Housing's *Comprehensive plan for the development of sustainable human settlements* by encouraging privatised investment in affordable rental housing within the inner-city. Crucially, it aims to catalyse public-private partnerships in mixed-used development with provision for social facilities integrated into new residential and commercial developments (National Treasury Press Release 2014: 1). This describes an approach in which building programmes/typologies do not exist in isolation, but that the building fulfils multiple social roles in serving its inhabitants and broader community.

As indicated prior, these tax incentives and write-offs correspond with considerable financial benefits to investors for both the refurbishment of existing inner-city buildings and the development of new inner-city buildings.

Scope and Effect of the Incentive:

- Regarding redevelopment projects, there is an accelerated straight-line depreciation allowance for 20% of the improvement cost, and an annual depreciation of 20% over the remaining four years. The redevelopment's refurbishment operations must preserve a considerable portion of the building's exterior framework or structure, and any additions or extensions must be of an accompanying nature (City of Johannesburg 2004). With reference to the broader proposal of this study, this could have substantial implications on the uptake of redevelopment ventures by an alternative financing/development model.
- Regarding new developments, the incentive offers a tax deduction of 20% in the first year, and an annual depreciation of 5% for the following 16 years. (National Treasury Press Release 2004: 2). While new developments are not a focus of this discourse, the construction of new real estate projects together with the redevelopment of dilapidated building stock – under a controlled and planned framework – will collaboratively improve the state of urban precincts within the inner-city.

The UDZ tax incentive covers the following development costs:

- Existing building/part-building demolitions
- Construction
- Water, drainage, electricity, sewage and waste disposal
- Parking or access
- Security components
- Sidewalks and on-site landscaping

Eligibility of the Tax Incentive:

Any owner-builder or owner-first purchaser is eligible for the tax incentive within the inner-city's UDZs once particular preliminary conditions are adhered to. Otherwise noted, if the building, which undergoes erection, addition, extension and improvement, is used for the trade of the taxpayer, the owning entity will benefit from the tax deductions applicable within the inner-city's UDZs (City of Johannesburg: 2004).

The tax incentives are applicable to any ownership form, irrespective of whether the owner is an individual, close corporation, company, trust or partnership (National Treasury 2006: 2). This is hugely significant to the broader proposal of this research, in which members of the 'the crowd' (to be described in latter subchapters), who could be the potential owners of a redevelopment project through an equity crowd structure, could also benefit from the tax incentives applicable to the UDZ framework.

With respect to an owner-builder, the following preliminary criteria must be satisfied to be eligible for the incentive:

1. The owner-builder's redevelopment or construction of a new building must be located within a UDZ and, thus, the owner-builder must add value through improvements to the UDZ. Within the context of Johannesburg, this is applicable to the Johannesburg inner-city,
2. The owner-builder must construct or improve a building from a minimum scope of 1000 square metres.
3. The owner-builder's new or improved building should function solely for the purposes of the owner-builder's trade, which can be of an industrial, commercial or residential function. The improvement and/or building operation should be initiated by the owner-builder, and the contract, on or after the date of the UDZ framework commencement, should be signed formally,
4. Lastly, the owner-builder must obtain, from a local municipality, an occupancy certificate, as well as a certificate proving that the building is situated within a UDZ, in order to be eligible for the incentive. The occupancy certificate should align with the National Building Regulation's parameters and is to be received on final completion of the building's construction.

(National Treasury 2006: 3)

With respect to an owner-first purchaser[5], the following preliminary criteria must be satisfied to be eligible for the incentive:

1. A developer must construct or improve an entire building (or a portion of a building greater than 1000 square metres)

[5] An entity that has purchased an improved or refurbished building from a developer

For example, a developer purchases several flats in a block, that together total 1000 square metres, and then sells them to owner-first purchasers. The individual owner-first purchasers will be eligible for an allowance.

2. The developer must not yet have claimed any UDZ tax allowance for that building in particular
3. The owner-first purchaser must purchase the building (or portion thereof) directly from the developer of the improved (redeveloped) or newly-constructed building.
4. Lastly, the developer should not use the building (or portion of) for the purposes of his/her trade or business function. The first-purchaser, however, must use the purchased building (or portion of) for his/her trading/business purpose.

(National Treasury 2006: 3)

Lastly, once all zoning, planning and building plan approvals have been issued and received, and the construction work has been finished, the taxpayer is required to request a UDZ location certificate. In doing so, the building owner must supply the anticipated costs to be incurred in the building process and the number of expected employment opportunities created during- and post-construction (City of Johannesburg 2004).

Once the above requirements have been obtained, the incentive can provide considerable benefits to both owner-builder and owner-first purchaser stakeholders – the potential entities encompassed within a crowd-financing platform.

2.1.7 - Public and Private Partnerships

Public and Private Partnerships as Essential

Public and Private partnerships are essential to the redevelopment efforts of renewing real estate stock within the UDZs of South African inner-cities. Effective partnerships can be obtained by an improved mutual understanding between stakeholders, issuing a procedural framework in which private entities should operate, and establishing a more accommodating development policy for the interests of all parties. In doing so, private and public partnerships, through an act of collaboration can better stimulate, encourage and accelerate building redevelopment.

The urban development framework is an excellent of example of a base from which to further public and private partnerships and collaboration. The tax incentives proposed by the local government and the subsequent initiation of development projects as a result of this initiative, demonstrate a public and private stakeholder relationship that can expedite physical, economic and social renewal within inner-city UDZs.

Furthermore, the public/private approach has demonstrated to be critical to large projects that encompass complex site conditions, infrastructure demands, or levels of environmental contamination. However, the often unpredictable and open-ended quality of environmental remediation, as an example, requires high rates of return to entice private investment (Miles 2007: 323). These complex site conditions are most definitely apparent within South African inner-cities, whereby crime, together with building decay, create complex contextual parameters for attracting investment.

Public Entrepreneurship

Stakeholders who make use of the UDZ incentive can be described as performing an act of 'public entrepreneurship'. This is a term that defines individuals who partner and collaborate with government agencies to provide new and innovative mediums to serve the public (GovLab 2014).

Miles describes the benefit of public entrepreneurship and the value of incentives for stakeholders involved within complex projects, whereby public entrepreneurship – when proposed for weak

markets – is most beneficial in the case of complex projects. This is achieved if a city, through the use of incentives, capitalizes on resources to make a real estate development feasible for both private and public constituents (Miles 2007: 323). In this way, private entities can, through a productive relationship with public agencies, enable more inclusive development activities for all stakeholders.

Analysis of an Existing Public-Private Partnership Structure

Established as a collaboration tool between private and public sectors within the city of Cape Town, The Cape Town Partnership aims to better develop, manage and promote Cape Town central. A crucial objective of the partnership is to facilitate access to information relating to the UDZ framework and its implementation (IOL 2013). This has established a platform from which to exchange dialogue between public and private sectors in an effort to improve understanding and mutual agreement.

In Johannesburg, the Johannesburg Development Agency has also partnered with private developers, such as Propertuity and Play Braamfontein, to provision capital funds for the improvement of street and sidewalks in Maboneng, and the upgrading of public alleyways in Braamfontein.

Such partnership opportunities enable a platform for improved and enhanced dialogue between private and public stakeholders which, in turn, enhance the development process, as well as the built product of that process.

2.1.8 - Early Recommendations for the Inner-City

Although the UDZ's framework has encouraged the partial renewal of inner-city real estate stock by public and private developers, there is an increasing necessity for growing the rate at which this development activity takes places.

Critically, large tracts of land/real estate located within UDZ precincts have not yet been approached by investor/developer stakeholders, and are in a state of increasing decay. This expresses the need for more than a tax incentive, but rather additional means of accelerating redevelopment of brownfield real estate within the inner-city. As this research report proposes, this may be adequately identified within an alternative funding mechanism for expediting this redevelopment.

2.2 - Brownfield Redevelopment

2.2.1 - Introduction

Critical to this research report is the potential for an alternative funding mechanism, specifically crowdfunding, to accelerate the redevelopment South Africa's inner-city real estate or property.

As described in the title of the report, crowdfunding's ability to raise and deploy capital into 'brownfield' projects is of most significance and relevance. The following subchapters, therefore, seek to define the notion of 'brownfield', its characteristics, potential financing structures for redevelopment, and the recommended development protocols for refurbing and improving brownfield inner-city sites.

2.2.2 - Defining 'Brownfield'

Technically, 'brownfield' refers to a piece of industrial, commercial or residential property, within the inner-city, that is abandoned or underused, but is considered as a potential site for redevelopment. Specifically, this refers to dilapidated and decaying real estate within South African inner-cities, many portions of which are located in demarcated UDZs.

A brownfield development can, however, be approached as a conventional construction project, except for the added potential of:

- Significant excess transaction costs brought about through due diligence, community involvement, legal fees, negotiation time, etc.
- Excess site preparation costs for possible contamination clean up.
- Excess contingent liability expenses that may exist in future

(Davis 2002)

In addition to Davis' above observations of brownfield sites' additional complexities, these sites can be accompanied by far greater risk factors. As Miles elaborates, the significant obstruction to brownfield redevelopment is most often risk, not cost. It is these risks that must be managed and mitigated to ensure the successful development and latter performance of inner-city real estate (2007: 323).

2.2.3 - Characterising Brownfield Types

Properties possess varying levels of brownfield severity, which is most notably a function of the excess costs tied to the redevelopment.

There are five types of potential brownfield sites, as described by Davis:

1. Viable sites: These encompass 'good' economic development potential and low levels of industrial contamination. A developer in the private sector can secure this deal without government financial recourse (assistance).
2. Threshold sites: These are considered to have 'satisfactory' economic development potential, as well as moderate industrial contamination - the extent of which may be difficult to determine without considerable investigation. This type, however, requires government intervention (assistance) to accomplish the deal (Davis 2002: 97). Within the context of South African cities, this government intervention may be in the form of a tax/bad-debt incentive or partnership with a local agency, such as the JDA.
3. Potential future sites: Although the economics of these sites are unknown, the real estate, in some cases, may be worth more than the operating business, and the site may be subject to redevelopment pressure. Generally, these sites will then evolve into one of the other typologies indicated within Davis' list.
4. Non-viable sites: Irrespective of contamination or decay, this site typology has little or no economic use in the foreseeable future. The preferred strategy is to stabilize the brownfield and wait until future conditions warrant development. This becomes a challenge for UDZs pursuing area-based improvement in which overall progress is stifled by the unstable brownfield conditions of a particular building/site.
5. Super (hyper)-polluted sites: Despite potential economic development, these sites require extensive funding and are perceived to present a health risk to the public. It is only with a long-term focus and up-front discount that these high risk sites may become viable for redevelopment. In line with this research proposal, an alternative funding mechanism may mitigate the risk of pursuing a development opportunity of this characterisation.

2.2.4 - The Effects of Brownfield Status

Typically, buildings that have a brownfield status have been unofficially re-appropriated to fulfil certain ad hoc functions, many of which are deemed illegal and criminal in nature. These buildings, therefore, can be accommodators of gang and drug activity, lack organizational and management structures, inhabit illegal stakeholders, and operate without an agenda or mandate for broader community development. For this reason, the difficulty in assessing and later redeveloping buildings within the inner-city is exacerbated, which, in turn, functions as a significant stumbling block for

redevelopment. Furthermore, this increases the risk associated with such a development, which may deter many investors with substantial risk aversion.

Consequently, these buildings are not only dysfunctional internally, but also diminish the overall progress of inner-city community/precinct improvement. Because building dysfunction requires additional services and expertise to amend, brownfield projects may often require another layer of financing costs that are typically applicable to conventional restoration projects. This results in a financing gap, which may, however, be filled by an alternative funding model(s).

2.2.5 - Steps in Brownfield Redevelopment

Todd Davis, in his book, *Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property*, describes the practical steps and finance-related actions required for managing and redeveloping brownfield real estate. Although Davis' prescriptions are primarily directed towards industrial property specifically, several of his procedural steps may also be aligned with South African inner-city commercial and residential real estate in the table below:

No.	Possible Steps	Finance-Related Actions
1	Screening of a potential brownfield opportunity, which entails looking for an appropriate development site within the inner-city.	Out of pocket expense, which may be conducted internally.
2	Identifying a specific site and conduct a back-of the envelope analysis, including environmental 'flaws'.	Out of pocket expense, which may be conducted internally.
3	Conduct due diligence on the brownfield property, which includes an initial phased assessment of environmental/dilapidation concerns.	Out of pocket expense, and the seller may be motivated to contribute.
4	Perform thorough environmental/dilapidation site characterisation of former residential, commercial or industrial building within the inner-city.	Out of pocket expense. Seller may be motivated to cover all (or in part thereof) of the costs. Alternatively, innovative loan mechanisms may be available. Furthermore, redevelopment agencies or municipalities may provide incentives., such as the Urban Development Zone framework within South African inner-cities
5	Conduct detailed cost estimates for entire real estate transaction (deal) to assess the overall feasibility and prepare necessary information to procure financing. Typically, this 'financing' would refer to conventional debt/equity sources, and would not entail an alternative mechanism, such as crowdfunding.	Out of pocket expense, which may be conducted internally.
6	Align acquisition financing (all financing will likely have to be organized simultaneously, as the repayment of all financing is dependent on overall project completion). As	Out of pocket expense; conventional lender financing and private sources providing equity.

	noted above, this 'acquisition financing' may be broadened to source capital from an alternative mechanism, such as crowdfunding	
7	Line up remediation or development funding for the inner-city site.	Out of pocket expense. The seller may be motivated to cover part or all of the remediation costs. Furthermore, redevelopment agencies or municipalities may provide incentives, such as the UDZ framework.
8	Line up construction loan; funding for remediation/improvements may also be included within the overall construction loan (if it is not too excessive).	Conventional (or an alternative) construction lender, and a government-assisted loan program may be applicable for particular projects. In such instance, the Johannesburg Development Agency may partner with a development stakeholder to fill financing gap.
9	The cost or value gap must be defined and, if required, financing sources must be identified to fill the financing gap tied to brownfield remediation. Hence, there may need to be renegotiations of all financial structures to reflect the injection of new funding from additional funding sources.	This may encompass the renegotiation of purchase prices, reducing clean-up needs, the use of credit or insurance enhancement, and obtaining government assistance, such as tax abatement, direct grants, loan guarantees, fee reduction etc.
10	Close on remediation, construction and other necessary grants or loans, otherwise known as 'gap' fillers.	Aligning with the proposal of this discourse, these gap filler could be in the form of a crowdfunded financing alternative.
11	Remediate the site and obtain closure letters/certificates	
12	Close out construction loan and obtain permanent financing	Settle all loans and distribute all profit to equity partners.
13	Manage and operate the redeveloped property, and prepare property for sale, if desired.	Remain in compliance with debt services payments and conditions of mortgage agreement, and re-finance inner-city redevelopment if required.

(Davis 2002: 98)

Table 1: Steps in Brownfield Re-Development

The above table describes the conventional processes applicable to brownfield redevelopment and financing. Although mentioned alongside several of the steps above, it does not, however, consider alternatives to the financing structure that could be made available through crowdfunding and the sourcing of collaborative wisdom/knowledge. Such an alternative model may reduce the 'financing gap' and expedite building redevelopment processes within South African inner-cities.

2.2.6 - Typical Financing Structures for Brownfield Redevelopment

A brownfield developer, alike conventional developers, will typically not self-finance development projects. As a means of reducing risk, the use of external funding allows the developer/borrower to achieve a higher rate of return through leveraging their own capital. As Davis describes, leverage increases the rate of return, as well as decreases exposure to risk (2002: 99). Moreover, this external financing for brownfield real estate development will generally fall within two fundamental categories, the two fundamental crowdfunding models explored for this study:

Debt: Debt refers to borrowed funding and may include, in the case of brownfield redevelopment, a remediation loan, construction loan and a permanent loan. Certain public entities (agencies) may also offer forgivable or highly subordinated debts that is considered 'near equity' (Davis 2002: 99). South African tax authorities, for example, may allow bad debt write-offs for buildings within the UDZ framework. Typically, within the South African context, debt will form the majority of the funding requirement as many projects are often highly leveraged.

Equity: Equity, however, includes the developer's financial equity, government grants, limited partners' equity, as well as funds from additional 'national brownfield funds', which may, in the South African context, be injected by public agencies, such as the JDA. 'National brownfield funds' available to developers in the United States, Davis' domicile, do not appear to coincide with any such funds in South Africa. The UDZ tax incentive, as well as the above-mentioned local agency capital, could, however, be likened to such a government subsidy.

As Davis observes, in some cases, control of the brownfield project may be diluted as equity investors may demand additional (stronger) involvement (2002: 99). Although additional equity input may dilute ownership and control, it may be an effective means of initiating inner-city brownfield redevelopment and offsetting additional costs.

2.2.7 - Financing Brownfield Development Costs

Although mentioned briefly in the procedural steps of brownfield redevelopment, the development's full scope of potential incurred costs should be ascertained at an early stage. To determine the additional funding requirements for the brownfield site, the developer should initially identify the development costs, which is prior to considering public funding or alternative incentives (inducements). While itemizing all costs, the developer would simultaneously be required to conduct an appraisal of the site as an income-producing asset. Following the remediation of a potential inner-city site, this would simulate the return parameters of the development's sale proceeds plus the present value of net rents (Davis 2002: 100). Although an evaluation of the asset's income-producing ability would be relevant, brownfield site are subject to additional costs, which together result in a 'financing gap'. This would have an important implication on the above-mentioned appraisal process and the project's affordability.

The financing gap apparent in brownfield redevelopments requires additional levels of funding, and is not applicable to conventional real estate development projects (Davis 2002: 100). Remediating buildings (or portions thereof) in Johannesburg's inner-city, therefore, will require additional tiers of financing, and cannot be approached as a typical South African building purchase and/or improvement.

2.2.8 - Addressing the 'Financing Gap'

<u>Determining the Presence of a Gap:</u>

Significantly, if development costs are roughly equal to or less than the property's appraised value, the development should be considered further. If, however, the costs of a brownfield development

are greater than market value, considered the 'financing gap', an alternative funding input is necessary (Davis 2002: 100). This alternative may be through a medium of a non-typical financing mechanism, such as the one proposed for this study.

Potential 'Gap' Fillers in the in the Private and Public Sectors:

As mentioned above, a brownfield site may incur a 'financing gap' that results from the potential for excess site development costs, because redevelopment costs to the redeveloper exceed market value (as determined by the lender and additional market forces).

As Davis proposes, a potential 'gap' filler may be to purchase a brownfield site at a significantly lower cost and then create potential real estate gains upon selling the property. How cheaply land can be purchased is the difference between viable sites and those that won't be successful (2002: 100). Furthermore, if a real estate transaction involves a property purchase and the property possesses value, the developer/buyer may negotiate a reduction of the purchase price to include the clean-up/remediation costs. In doing so, the cost basis of the project may be lowered by the degree to which the 'gap' requires filling (2002: 100).

When a cost gap is encountered, assistance may be sought from local or provincial government entities. For example, there may be opportunities for inner-city developers and building owners to partner with the Johannesburg Development Agency (JDA) through a joint venture structure, which, in turn, will provide additional expertise and may source additional funding for the project. Such assistance is secured through an understanding that the community or greater city precinct (in this case inner-city) will benefit tangibly (such as through increased tax revenues or other social or economic improvements) in return for the financial contribution towards the brownfield redevelopment.

2.2.9 - Transitioning Away from Brownfield Status

Prior to redevelopment, a brownfield site often requires an expensive, extensive and complicated site preparation process, which is usually accompanied with above-average risk. Despite the additional quantifiable and manageable risks, the primary objective of a brownfield redevelopment is to transition the building (and site) back into a state of normality and marketability.

Robert A. Simons elaborates that, at the end of the lending process, brownfield projects should be approached as real estate deals, and not credit deals. Hence, the property being developed should function as sole collateral for a permanent mortgage with a standard or "normal" loan-to-value ratio for the development (Davis 2002: 96). The developer/borrower can then structure a financing agreement that aligns with conventional real estate lending standards acceptable to large lenders or institutions (2002: 96) – that is if such financing was provided for by large institutions. Effectively, the development should evolve into a more 'typical' real estate deal that is now separate from the factors that defined its prior brownfield status. By doing so, conventional analytical tools can also be applied to determine various performance/acquisition metrics.

As successful brownfield deals are fundamentally real estate deals, their ability to attract tenants (or buyers) and financing should be determined by real estate development fundamentals. If the 'excess' costs connected to brownfield developments can be contained or supplementary funding can by secured to cover such expenses, these projects can be approached as sensible real estate development prospects.

This is essential for brownfield real estate in South African inner-cities, such that once redevelopment has taken place, these properties should function as sustainable and attractive vehicles for investment. Therefore, UDZs should transition out of this status and perform as effective and well-maintained community environments. Alternative crowd- financing models, such as the potential for capital raising from 'the crowd', is significant, as it has the potential to reduce a developer's risk in the

early stages of the project, as well as permits the use of external funds to transition the development into a normalised status. Such models are becoming alternatives to conventional real estate funding practices, and are disrupting the existing institutionalised providers of this finance.

2.3 - South African Real Estate Finance

2.3.1 - Introduction

Real estate finance can be described as the process by which principal and interest are paid and received within the terms and binding conditions of a loan agreement. Moreover, it describes the process in which finance is borrowed (leased) at a particular interest rate (rent) for a specified period of time, during which the borrowed amount is repaid (Sirota and Barrel 2012: 262).

This subchapter of the literature review seeks to explore the characteristics of conventional real estate finance and investment, and will later become a framework from which to compare alternative models of funding South African real estate practice. This analysis of real estate finance has been explored through its classifications, funding stages, sources, structures, preferences, drawbacks and risks.

2.3.2 - Real Estate Classifications

There are three primary property types into which investors can deploy capital, namely: residential, commercial and industrial real estate. Each of these classifications possess varying characteristics, upsides and drawbacks, and are best suited to a particular investment objective and criteria. These classifications can also exist in combination, which diversifies a building's tenant typology through a mixed-use building programme/functionality.

Residential

In contrast to the assumption that residential property only coincides with single family homes, the scope can be broadened to include sub classifications, such as duplexes, triplexes, and four-plexes, low- and high-rise apartment buildings, as well as subdivided portions of lands holdings, which include sectional titles.

Due to the difficulty of managing large portfolios of smaller investments, residential REIT structures have typically not been commonplace (Turnbull 2015: 99). There is, however, increasing evidence of REIT structures assuming this form. In June of 2015, Indluplace listed on the JSE and became the first residential-only REIT listed in the property sector (Businessday 2015). This listing was a product of an increasing demand for housing, with property companies pursuing residential real estate assets for the first time in years. This is further justified by an escalating demand for affordable rental housing units, which correspond with consistent rental growth and low vacancies.

Commercial

This real estate category predominantly includes office and retail (street shop to shopping centre) buildings. Commercial property tends to best represent economic conditions, which are shown through tenant defaults and vacancies. Furthermore, commercial real estate may outperform residential real estate within a cycle, and vice versa.

Despite the advantages that digital advances have brought to real estate, many observers are concerned that, with the rapid proliferation of online shopping, commercial markets will struggle to accommodate a sustainable tenant base in the foreseeable future.

Typically, commercial real estate investments, relative to residential property, offer higher-yielding returns. As leases are usually-long term agreements, this increased yield and predictability makes them ideal for steady income returns, justifying REITs' ownership of commercial real estate. Due, however, to the size of these developments, and subsequent equity requirements, commercial real estate has largely been inaccessible to lower-capitalized investors, who have been unable to benefit from the yields and long-term leasing commitments of this real estate category.

With minimal amounts of additional effort required to produce a return, along with a long-term high income stream, the prospect of crowdfunding such a real estate classification (commercial) within South African inner-cities may be the starting point for a platform of this nature.

Industrial

Usually located on the perimeter edges of the inner-city, industrial buildings tend to require large amounts of space and are usually specialized to accommodate the requirements of manufacture- and production-specific tenants. Alike commercial real estate, industrial properties are also subject to longer, higher-yielding leases, proving advantageous to long-term, income-seeking investors (Turnbull 2015: 80)). Despite this, high levels of specialisation may affect the suitability of new tenants to industrial spaces, which may also have an influence on the prolonged vacancy rates of building owners. As observed in the writing of Davis on brownfield building renewal, industrial properties when being redeveloped may be subject to more complex and costly remediation efforts due to contamination and industrial wear and tear (2012).

Similar to the commercial real estate classification, the size of industrial developments, as well as their equity and expertize requirements, make industrial property largely inaccessible to lower-capitalized investors, who are then unable to benefit from the yields and long-term leasing commitments of this real estate classification.

Maboneng, located in Johannesburg's inner-city UDZ, is a precedent example of how industrial property classification can be both retained and (in parts) re-appropriated to create an accommodating precinct for light industry, as well as residential and commercial uses. Developed by a property company known as Propertuity, the precinct continues to expand its scope through the development of new housing units, many of which are being constructed within renewed factory spaces.

2.3.3 - Development Funding Stages

Typically, real estate development involves a sequence of financing arrangements. This includes predevelopment financing, short-term construction financing, interim financing and permanent financing (Miles 2007: 166). These funding arrangements depend on the project's stage within the development timeline, and are often release in tranches by a typical institutional financier.

Broadly described, short-term finance is required for owner/developer entities to pay for the initial production costs of development, such as the purchase of land, construction and promotion costs, as well as professional service fees (Wilkinson and Reed 2008: 124). Permanent or long-term finance enables developers to repay their short-term loan/leverage, maintain ongoing costs, and realize their profit by retaining or selling the development as an investment. These options are dependent on the developer's financial status, motivation and the greater market context (Wilkinson and Reed 2008: 124).

Lenders are primarily concerned about two significant loan risks, namely the loss of loan principal and the non-payment of debt service. Equity investors, however, are concerned by cash flow, tax shelter benefits and value appreciation. Furthermore, debt providers (lenders) are more risk averse and tend to invest (through majority financing) in completed projects with long-term leases of creditworthy tenants. Whereas equity investors are more attracted to riskier development schemes, but require a

greater rate of return for investments of this nature (Miles 2007: 166). This preference for either a debt or equity structure has been explored in later subchapters of this report.

It should be noted that a project's investment risk generally diminishes as it advances through the development process. Thus, lenders and equity investors' required interest rates and rates of return decrease as the project develops. Furthermore, predevelopment equity and debt carry the most risk, and in turn may deliver the highest expected returns for financiers (Miles 2007: 166). In context of this research proposal, the timing of finance provision is crucial to improving the return to 'the crowd'.

Predevelopment Funding:

> *"Securing the funds to control the development site is considered one of the biggest financial hurdles for a developer during predevelopment."* (Miles 2007: 166)

As described by Miles, this is considered to be the riskiest investment stage of the financing cycle. Firstly, rent-generating cash flow is one or more years into the future, whereby the further the stream of income exists from the present, the riskier the investment. Secondly, and due to the early nature of this stage of finance, the probability that a project within the predevelopment phase will be completed (and occupied by tenants) is far smaller than the probability that developments in more advanced phases will be finished and occupied (2007: 166). Miles' explanation of the risk of predevelopment financing is done without particular reference to potential brownfield redevelopments ventures. This status will, under conventional financing structures, further implicate upon the risk profile of such developments.

There are a number of predevelopment objectives that require front-end capital, but carry significant risk if not completed, namely: rezoning property to an appropriate usage, sourcing and securing tenants, carrying out conceptual/architectural designs and liaising with construction-related consultancy services. Conventionally, developers use their own equity capital within the predevelopment phases of commercial real estate (2007: 166). At this stage of the financing cycle, it is particularly difficult to obtain equity financing and highly improbable to obtain debt financing without a degree of collateral higher than that offered by the site alone. Predevelopment financing, therefore, may only be possible if the developer is willing to offer an additional asset base.

Historically, smaller developers lacking this equity capital for predevelopment funding for larger and alternative development typologies (commercial and industrial) will be denied from such projects. This does, however, present an opportunity for a novel financing model(s) to improve developers' accessibility to predevelopment funding.

Construction Financing:

Traditionally, commercial banks have been the primary source of construction financing. While they remain as large financiers for new projects, developers can also secure construction loans from alternative sources, such as pension funds and life insurance companies. Well-capitalized developers can also issue commercial paper (unsecured, short-term notes issued by a large corporation or REIT) to fund construction (Miles 2007: 168). These structures are formal and institutionalised, and have for many years defined the parameters of real estate construction financing.

Developers often arrange permanent financing before sourcing a construction loan. Therefore, when a permanent loan is secured, obtaining a construction loan becomes considerably easier (Miles 2007: 170). Generally, the construction loan's principal and accrued interest are both paid from a permanent loan, which emphasizes the importance of securing permanent financing.

Permanent Financing:

Permanent loans refer to the long-term provision of debt, predominantly determined by the income streams of commercial, residential and industrial property. Permanent loans are offered to developers/property owners upon full occupation and when income has stabilised, and a large majority of permanent loans are derived from life insurance companies and Commercial Mortgage Backed Security (CMBS) issuers (Miles 2007: 170).

As observed by Miles in developed markets, one of the vital requirements for the issuance of a permanent loan is that a minimum debt service coverage ratio must be achieved. Most permanent loans are of a 10-year, fixed-rate structure with a 30-year amortization schedule. Generally, for a permanent loan to be granted, a development's net operating income (NOI) must be 1.2 to 1.6 times higher than annual debt service (principal and interest payment) (2007: 170). The interest rate spreads on construction loans are typically more than that of permanent loans, incentivising the developer to replace the construction loan as soon as possible.

Lastly, long term financing is commonly provided in the form of a trust deed or mortgage, which incorporate the commitment of property as collateral for the repayment of the loan amount (2007: 170). Under the debt structure of permanent financing, the property, therefore, operates as the primary collateral under the repayment terms of the contract.

2.3.4 - Classifications of Finance

As described by Wilkinson and Reed, a majority of developments are funded by a combination of equity and debt, where the lending entity/institution assumes a portion of the risk inherent within the funded development. In debt provisioning, the lender charges an interest portion and service charge that aligns with the level of risk taken by the lending institution with an added allowance for profit (2008: 124). In the event of a default, real estate debt has the first claim on property asset value and cash flow.

Similar to real estate development loans, equity investments in real estate also carry a large degree of risk. Equity stakes in real estate, however, have a risk premium and expected return that is greater than the expected risk premium and rate of return on long-term commercial mortgages (Miles 2007: 205).

2.3.5 - Typical Sources of Finance

Typically, property developments are undertaken using funding from an external, or third-party, source, whereby, as Wilkinson and Reed observe, the development's financier provides the difference between the developer's available equity or cash equivalent, and the overall cost of the project - including all relevant expenses over the development period and the return of the initial loan (plus interest and corresponding lending costs) (2008: 124). These external or third-party sources can be organized into various categories.

There is, therefore, an expansive range of lenders who are of varying size and expertise, and who have different risk preferences and project specializations. With the financial market being in a perpetual state of change, careful consideration must be given to the most appropriate funding structure/type for a particular project (Wilkinson and Reed 2008: 124-125).

In the past, merchant and clearing banks have been the conventional source of short-term development finance, while financial institutions (pension funds and insurance companies) and property investment firms have provided long-term investment finance. Financial institutions can also take on the role of providing short-term finance through forward-funding development projects (Wilkinson and Reed 2008: 125). More recently, Real Estate Investment Trusts (REITs) have provided an additional source of property funding.

These sources of external financing have been explored in further detail below:

Financial Institutions

Within the real estate industry, a financial institution (or FI) is the used to describe insurance companies, pension or superannuation funds, unit trusts and investment trusts. These entities directly and indirectly invest into property through the ownership of shares in development and property investment companies (Wilkinson and Reed 2008: 131). This, however, differs from REIT investments that are stock-market traded. Direct real estate investments comprise of the forward-funding of development projects, the ownership of let and completed developments and the direct development of new sites and refurbishment of existing properties.

In the South African context, as well as in most economies abroad, these entities are the primary providers of finance for real estate investments and developments, and would typically finance redevelopment ventures that are of an appropriate risk status.

Pension funds (as an FI) directly invest clients' paid premiums to attain capital growth and income, so as to align with the future payment obligations of retirement. The long-term and secure nature of real estate investments, therefore, suit this financial institutions commitments. Similarly, life and general insurance companies also invest clients' premiums into real estate to meet future payment obligations from a long-term income growth asset. Unit trusts manage unit-holders' shares of real estate on their behalf, allowing for a rational spread of risk and diversification (Wilkinson and Reed 2008: 132). In this context, mutual funds can comprise of solely property assets as an indirect form of finance.

The extent to which a financial institution will invest their capital into real estate is dependent on their liabilities and the magnitude of the fund that will be invested. It will also be informed by the performance of property investments relative to alternative investments, as well as the prevailing economic climate.

In summation, the underlying objective of financial institutions is to minimize risk through a conservative real estate investment approach, while concurrently maximizing returns. However, this investment and capital deployment criteria does not typically align with financing real estate redevelopment in decaying inner-city contexts, such as those apparent in South African UDZs.

Banks and Building Societies

In the 1980s, banks extended their established short-term financing role and increasingly began participating in the offering of medium-term loans, which were generally up to a period of 5 years after the development's completion.

As a more direct motive for property investment, banks are mandated to make a financial gain form lending capital. This is manifested through a loan provision to enable the progression of a specific real estate investment or, alternatively for a developer to retain a development project as an investment/asset. As described by Wilkinson and Reed above, and to decrease exposure to financing risk, the loan-providing bank will attach the assets of the company or development as surety for the loans (2008: 139).

In South Africa, and in many other markets, banks are the primary providers of finance for smaller residential and commercial property assets. Despite these assets being comparably less capital intensive than the investments pursued by financial institutions, accessing capital be difficult due to the stringent lending criteria applicable to home-buyers and businesses.

Property Companies

Property companies themselves are also a long-term source of financing, as properties are purchased, and certain developments are retained for portfolio holdings. Property investments are viewed by real estate companies as an asset providing security for borrowed finance as well as a source of income. Property and development companies are partly financed by borrowing short- or long-term finance, or through their own capital (or that of their shareholders). Furthermore, equity finance can be raised through issuing varying classifications of company shares allowing investors to participate directly in the profits and losses of the company through a dilution of company ownership (Wilkinson and Reed 2008: 139).

As established property companies, and their shareholders, can provide the capital required for new developments, many newer/younger developers may struggle to inject their own equity financing to new development schemes, presenting the described 'financing gap'.

Real Estate Investment Trusts

Real Estate Investment Trusts (REITs) are companies that finance or own income-producing property. As a derivation of a mutual fund structure, REITs afford low- to high-capitalized investors consistent income streams, long-term capital appreciation and diversification (REIT 2015). Moreover, they have thus far been an effective mechanism for the securitisation of real estate in many developed markets worldwide.

REITs are subject to the following advantages, which, in combination, have accelerated their adoption as a preferred means of indirect property ownership:

- Applicable tax incentives
- Trading on the stock market
- Transparency and the availability of most recent, up-to-date information
- High liquidity

(REIT 2015)

REIT structures are mandated to distribute 90 percent of their net taxable profits (derived from rental income) during the current accounting period, which has been an attractive prospect for investors. Due to the expenses associated with listing a REIT on the stock exchange, this structure, due to economies of scale, predominantly accommodates larger property investment and development companies, as opposed to smaller, new entrants into the market.

It has, however, been argued that a direct real estate investment in a 'bullish' market may, at times, offer a more attractive yield – despite the tax advantages. Furthermore, REITs, due to the pooling together of investments, typically lack specificity, whereby investors are unable to deploy capital into particular, once-off development projects.

Overseas Investors

Due to significant technological progressions in transferring and accessing information globally, overseas investors have and are becoming increasingly important participants in the real estate investment and development market through online platforms.

As cross-border investing becomes more common place, because of an improved tax and regulatory environment, global capital inputs into real estate assets will continue to grow (Wilkinson and Reed 2008: 146). This, however, can be accelerated further by increasing the size of the marketplace and international investors' borrowing capacity, as well as ensuring the development is perceived as a globally relevant and marketable product. Particular to this report, is the possibility for global investors

to inject capital into South African inner-city redevelopment through a cross-border platform, such as the proposed alternative financing mechanism of crowdfunding.

Private Individuals

At the upper-end of the market, high net worth individuals have the equity, surety and collateral to invest into larger-scale real estate development ventures. However, at the lower-to-medium spectrum of the market, most private individuals acquire property investments (outside of their primary residence) at the market's lower-end, with a significant portion of these purchases being domestic investors lending against the equity on their principal residences. In most instances, these private entities tend to focus their acquisitions on secondary and tertiary residential properties located in areas with perceived potential capital growth and increasing yields. Typically, these investors tend to be excluded from the prime market due to the 'reverse yield' gap and large pools of money involved.

As queried with other classifications, what if, however, private investors could be presented with an alternative property investment, one that lowered the cost to entry and improved their accessibility to 'prime' real estate developments, such as those presented by large-scale commercial, residential and industrial developments?

Government Assistance

Designed with the objective of encouraging private developers to engage with a development proposal or location, governmental agencies may put forward funding assistance. In the case of South African inner-cities, tax incentives have been made available to assist with expediting developer interest in the renewal and redevelopment of the cities' UDZs. Local agencies, such as the Johannesburg Development Agency, may also contribute external funds into redevelopment activity, therefore, reducing a potential 'financing gap'.

2.3.6 - The Development of Real Estate Financing

As described by Wilkinson and Reed, the role and scope of the varying property financiers within the development process has changed depending on the status of the property and its relation to business and credit cycles at a particular time (2008: 125). Short-term financing was typically derived from merchant banks in the form of loans secured against the property development's site and buildings. Long-term financing, typically provided by insurance companies, was secured in the form of fixed-interest mortgages. In certain instances, the developer would not necessarily retain the development but sell it to an insurance company or tenant as an investment (2008: 126). This is an exit mechanism for the developer, driven by an expectation of greater return.

Initially, long-term investors took on the additional role of short-term financiers, which increased competition by attracting the best investments. Concurrently, certain typical short-term financiers, such as the merchant banks, began seeking an equity share in the development itself. Due to this increasing competition and the persistent search for better yield, insurance companies began developing properties themselves for purchasing development companies (2008: 126).

In the United Kingdom in the 1980s, developers preferred to source short-term debt finance from banking institutions, enabling them to sell their completed developments into a growing property market. Alternatively, developers secured medium-term loans or refinanced earlier short-term loans, enabling them to retain their developments and investment/assets (2008: 128).

Increased competition, influenced by the development of traditional firms and the rise of an expansive digital age, have opened up the lending market to an array of new products, which are tied to varying lending structures and loan durations (2008: 130). It is expected, however, that the rate of expansion

of these lending offerings will slow and be consolidated, caused by an eventual downturn in the property market. It is essential, therefore, for an alternative financing mechanism to maintain relevance and ensure it sustainability during the ongoing cyclical shifts of the South African inner-city property/lending market.

2.3.7 - Typical Loan Structures and Payment Schedules

Conventionally, loans are standard in their payment schedules, requiring a certain sum to be repaid at consistent intervals over a prescribed period of time. Certain real estate loans may, however, restructure the required payments and interest obligations to accommodate the financial capabilities and affordability of the borrower, as well as the current economic climate (Sirota and Barrel 2012: 264).

Loans payments for South African real estate are typically of an amortization-type structure, in which a system of regular payments (comprised of both interest and principal) are made over a prescribed period of time (Sirota and Barrel 2012: 264). The result of this repayment structure is that borrowers can begin building/holding equity from the loan's first monthly payment.

As identified in both research and interviews, by limiting the equity portion of the loan structure and sourcing an amortised loan with a high loan-to-value structure, developers considered this to be there cheapest form of finance that does not dilute ownership.

The interest rate that will inform the magnitude of developer's repayments are informed primarily by two components, the inflation premium and the real rate of return:

- An inflation premium is included within the loan's long-term rates of return, as investors should be compensated for the expectation that future prices will be higher than present prices (Miles 2007: 203).
- The real rate of return compensates investors as they require a return in excess of inflation. This rate, however, does not compensate the risk embedded within the risk premium (Miles 2007: 203).

As David Sirota describes, real estate loans can be both 'adaptable and flexible' in nature, so as to satisfy market demands. Contemporary financing mechanisms can provide for a large majority of contingencies, which is achieved through altering one or more of the four basic characteristics of a real estate loan, namely: principal amount, interest rate, payment schedule, and the terms of repayment (2012: 261).

Although Sirota and Barrel describe an apparent flexibility in traditional loan structures, this is contrasted by the rigidity of investment criteria when pursuing risk-adverse development opportunities. Moreover, in contrast to Sirota's sentiment, it can be argued, however, that these loan structures are not as flexible and adaptable to investors acquiring real estate, especially for first time investors. This addresses the potential need for an alternative funding source, one which bridge the 'financing gap' between those who can access finance and those who cannot.

2.3.8 - Property as an Investment Preference

> *"For future income that you can live well on for as long as you live, no investment comes close to matching the amount and certainty of income provided by properties that produce ever-growing rental revenues."* (McLean and Eldred 2003: 6)

Investment in real estate is motivated primarily by a combination of three investment components, namely periodic cash flow, residual cash flow from appreciation, as well as a potential tax shelter (Miles 2007: 331). It also offers financiers investment security, whereby the lender can hold a first

claim or mortgage over the land portion of the development, as this security is tied to the restrictions placed on the property title deed (Wilkinson and Reed 2008: 125).

Additionally, the below characteristics further justify real estate as an investment preference for many investors:

Hedge against Inflation

One of the most significant motives behind large institutions' adoption of property as a viable investment choice is its function as a 'hedge against inflation'. This is reinforced by the expectation that rental growth will exceed inflation over time, subsequently providing a necessary buffer with income gains in real terms.

Despite volatile inflationary swings in the 1990s - coinciding with increased labour and construction costs - inflation, relatively speaking, has been kept under control (Wilkinson and Reed 2008: 132). In a low-inflationary environment, a property developer is more likely to experience lower interest rates and volatility and can manage future rental obligations to above-inflationary increases.

Leasing Guarantees

Property owners and tenant relationships are governed by a leasing structure that typically guarantees the owner a secure, upward-only stream of rental income over a contractual period at an agreed-upon rate (Wilkinson and Reed 2008: 133). Although, this can be subject to an allowance to revise the rental payment obligations to align with current market conditions.

Although there are risks of tenant defaults and payment voids, as well as an increase in shorter, more flexible lease structures, property affords investors a level of certainty and predictability, which is unlike many alternative investments subject to higher levels of short-term volatility.

New Construction Can't Keep Pace

As prescribed within economic theory, demand is met by an increased supply, and extensive competition restricts the increase of runaway prices. Housing prices, however, cannot be tamed as easily and, generally speaking, developers/builders won't be able to construct all of the residential stock to supply the demand of people (McLean and Eldred 2003: 9). Consequently, the housing market cannot rapidly and economically respond to demand bursts through increased supply, with builders being in a perpetual state of catch up (McLean and Eldred 2003: 9).

For this reason, the inability for developers to meet the growing demands of new residents and tenants, suggests a steady increase in rental income and capital gains over time – further justifying real estate's attractiveness and preference as an asset class.

2.3.9 - Drawbacks of Property Investment

Illiquidity

Property is a large investment and, unlike equities, cannot be sold rapidly in response to market trends. If the market conditions are not advantageous, certain properties may take months to dispose of, which is to the detriment of an investor looking to reinvest that capital into new ventures quickly (Wilkinson and Reed 2008: 134). Moreover, real estate investments, due to their physicality and aesthetics are subject to the design and spatial preferences of a potential buyer, furthering increasing the selling times for most properties.

This results in a low turnover of real estate sale transactions and liquidity relative to other asset classes. Disposing of a property investment also corresponds with high transaction costs, such as agents' fees, legal costs and administration expenses.

Indivisibility

Due to an inability to sell portions of a site or building, another important drawback of real estate investments is real estate's lack of divisibility, which may reduce the participation of smaller, lower-capitalised entities within the industry. Consequently, direct investment into multi-storey office buildings, which are high-value real estate prospects, are usually exclusive to syndicates or large financial institutions, such as pension funds or insurance companies.

Lack of Marketplace Centralisation

Another criticism of property investment is that, in contrast to equity markets, real estate assets lack a mutual meeting place for buyers and sellers to transfer real estate investments (Wilkinson and Reed 2008: 134). Without a centralised market, there is the risk of:

- Limited knowledge of the present condition of the market
- Limited knowledge of the magnitude of current trading volumes
- Limited knowledge of the current pricing levels that have been attained
- High marketing expenses to garner the attention of prospective purchasers

Management Requirements

Unlike equities or other financial instruments, properties, due to their physical nature, require proficient management expertise. This is at the expense of both time and cost to the developer or owner, and can, therefore, be seen as a drawback.

Although this may be perceived as a disadvantage, excellent management and oversight can also improve upon the returns received from real estate investments.

2.3.10 - Financing and Development Risks

The following subchapter discusses several of the risks associated with real estate financing and development:

Property Risks

Certain properties may be subject to particular 'property' risks more than others, such that these intrinsic risks will affect the future performance of these properties. For example, a property may be located in a crime-prone zone of the inner-city, which, due to its location, may affect tenant sentiment and perception. Furthermore, if the building is decaying due to poor construction or upkeep, this will affect its longevity and ability to retain tenants over time.

Both of the above 'property' risks are typical of many buildings located within the inner-city's UDZs. It is significant, therefore, that these risks are addressed and managed within these areas in order to improve upon the physical product and perception of future redeveloped properties.

Tenant and Space Market Risks:

Another significant risk, which primarily affects commercial property, is 'market' risk. Most leases are relatively short term – usually three to seven years – and leasing or re-leasing tenant space can pose a degree of risk for investors and developers. Sources of both equity capital and debt are aware of vacancies in the market and submarket where the property is contextualised (Miles 2007: 205).

Consequently, upon expiration of the building's lease, the space may not only remain vacant for a prolonged length of time, but also require leasing commissions and building improvements to secure new tenants.

Residential property prices and performance are also informed by buyers' and sellers' market demands. If out of cycle, owners/investors may find it difficult to sell or rent out their property, and fail to accumulate capital gains.

Within the inner-city, attracting new tenants and renewing existing leases will be difficult for building owners who fail to market a differentiated product. Hence, if in a state of dilapidation and decay, redevelopment stakeholders will need to restore marketability, irrespective of whether the development is commercial, residential or industrial in classification.

Capital Market Risks:

Capital flows into real estate investments that return the highest risk-adjusted return for that investment (Miles 2007: 205). Thus, real estate investments and developments are subject to many of the same pressures faced by alternative investments, such as stocks, bonds, and others. This contextualises the asset class within a highly competitive market, where there is a risk that investors will exit their positions and deploy their capital elsewhere.

Within the short-term, excess capital flows into a particular investment, which reduces the cost of capital because the perceived risk of making such investment is lower than the fundamental reality of that investment. In the long-term, excess capital flowing into commercial real estate is expected to increase the magnitude of commercial real estate available, often oversupplying the market with space, reducing rates and subsequently diminishing property returns (Miles 2007: 205). Hence, there are both short term and long term capital market risks that will affect the returns of the sector.

Brownfield Financing Risks:

Lastly, it is worth noting the sentiment of Miles regarding the risks of brownfield financing:

> *"The risk of developing an office building on a brownfield site that needs to be rezoned and has no preleasing in an overbuilt office market poses many risks – environmental, municipal approval, development, lease-up, and market. All these risks suggest an expected rate of return that could be 25 to 30 percent (maybe higher) on the equity investment, and there is little chance a lender would provide debt capital on such a risky deal."* (Miles 2007: 205)

2.3.11 - Development Restrictions

Lastly, it should be observed that prospective builders and developers are restricted by, among others, five significant factors:

1. High Costs – A large majority of people cannot afford to rent or buy new construction. Unlike other product companies, developers cannot easily reduce costs through economies of scale or extensive layoffs.
2. Lack of Land – Although there may be an abundance of land within South Africa's cities, it is not necessarily located where people would wish to reside. When this land is located within a prime position, however, it is priced at a premium. This is a pertinent factor to inner-city redevelopment. Although there may be land available elsewhere, there is a large demand for housing in the inner-city, which, instead of increasing housing prices, has resulted in the over population and degradation of real estate stock.
3. Cumbersome Regulatory Approvals – Large-scope developments within the inner-city require several council permits, which can often be costly and lengthy. Consequently, large

developments require an extensive investment of time and financial resources before anything is constructed. This process may, however, be expedited through working closely with city entities, such as the Johannesburg Development Agency.

4. 'NIMBY' Power – This describes the notion of 'not in my backyard'. Although developers may advance through the regulatory and bureaucratic hurdles of new construction, they must still deal with any objections by neighbours, environmentalists, and certain public interest groups wishing to restrict development. The correct methodology for redeveloping buildings in the inner-city of Johannesburg, for example, may attract certain criticisms, which will extend project timelines.
5. Inadequate Infrastructure – Inner-city developments and redevelopments may require, among others, extended or additional roads, revised waste disposal facilities, and improved water system infrastructure. Developers in the inner-city, therefore, may be subject to these (a portion of) these costs, which could hamper project initiation.

(McLean and Eldred 2003: 9)

Despite the drawbacks of real estate and the development restrictions presented above, there are considerable prospects for this asset class to regenerate and restore inner-city contexts in South Africa. The following chapter begins to address the model of crowdfunding, and how this mechanism is increasingly becoming an alternative platform for financing new ventures.

2.4 - Crowdfunding Ventures

2.4.1 - Introduction

> *"Real estate crowdfunding in an urban market at scale unlocks enormous potential by empowering people to invest democratically in the solution to one of their biggest needs while simultaneously earning a profit. The profound potential for crowdfunding to generate a powerful catalyst for urban growth and utility is enormous. If this combination is not the ultimate shareholder value paradigm then I don't know what is."* (Crowdfund Insider 2014A)

As described above, crowdfunding has the potential to democratize financing for new ventures, whereby low-, medium- and high-income individuals can deploy their capital cooperatively towards particular projects. Primarily leveraging off of the internet and social media, crowdfunding began as a medium for donation-based giving but has quickly evolved into an investment and venture capital platform for financing ideas, subsequently benefitting from ownerships and/or returns.

Significant to this report, however, is the possibility and potential for crowdfunding, and the capital of 'the crowd', to expedite South African inner-city redevelopment through making low investment minimums for South African property investors while providing multi-scale developers and stakeholders with accelerated financing for development.

2.4.2 - Defining Crowdfunding

'Crowdfunding' refers to the practice of soliciting financial contributions from a large number of people or 'crowd', especially from the online community, and not by professional financiers (such as venture capitalists, business angels, banks, etc.) (Mirriam-Webster 2016). Furthermore, Thorpe explains that crowdfunding represents one's ability to access money from a network, both known and unknown (Thorpe 2015: 4).

While it can be observed (or noted) that individuals already finance ventures indirectly through their savings, whereby banks function as intermediaries between money input and output, crowdfunding

operates without an intermediary by raising money directly from individuals through 'tapping' the crowd (Cumming 2012: 371). These individuals are connected to the venture through the internet and, as Spirer furthers this notion, suggests that crowdfunding's true promise exists within the power of the internet to connect information and people around the financing of revolutionary ideas (Spirer 2013:234).

Factors Influencing the Adoption of Crowdfunding (Cumming 2012):

1) Lack of Pre-existing Resources

2) Risk, Information Asymmetry and Moral Hazard

3) Preferences of Control

4) Funding Amounts Required by Entrepreneurs

5) Legal Aspects Surrounding Multiple Investors and Equity Issuance

6) The 'Wisdom of the Crowd' argument

Crowdfunding is not only a means of financing ventures but, additionally, it is a tool for finding common objectives/goals, connecting with one another, and for bringing people together (Maron 2015). Furthermore, it is a highly adaptable tool able to manifest uses in through multiple mechanisms.

2.4.3 - Basic Crowdfunding Models

Thorpe, in his book *Crowdfunding for Social Good*, describes the four models that are being used in present crowdfunding practices:

1. Donations - Structured as social campaigns, these models offer little or nothing in exchange for the money donated, except a commitment to perform a described charitable function.
2. Rewards – As a form of return for funds contributed, these models offer rewards ranging from new products to 'thank you' letters.
3. Debt – This model allows for the raising of money in return for the commitment to debt repayments with interest.
4. Equity – This allows for capital deployed in the crowdfunding process to be converted into a shareholding or ownership of the idea/product.

(Thorpe 2013: 4)

<u>An Introduction to the Equity and Debt Crowd-Financing Models:</u>

As a brief introduction to the equity and debt crowdfunding models, the primary models to be explored within this report, the following text provides a basis for further elaboration:

Crowdfunding is being identified as one of the most viable mechanisms of sourcing seed and early-stage capital (Maron 2015: 1). When money is invested through an equity stake in a company or venture, this financing proceeds directly into the capital of the company from which shares are allocated to investors. Investors subsequently gain some form of control over the company, while additionally bearing the risk associated to it. Moreover, this contribution (in the form of an investment) is often motivated by both financial and social objectives.

Conversely, those entities who provide finance for debt (through loan agreements) remain external but linked to the company through a contractual and collateral agreement. Lenders assume lower risk as a result of this collateral and the seniority of their claims over the company's equity. Additionally, as Cumming elaborates, many early-stage companies or start-ups cannot access debt finance, as they

are without the necessary cash flow and/or collateral to secure a loan and thus make regular interest payments to a lender (2012: 375). This further supports a growing market for providing debt through crowd-financing platforms.

2.4.4 - Defining Crowdsourcing

While crowdfunding can be referred to as a predominantly internet-based open call for the provision of funding, either raised through a donation, reward, debt or equity structure, this process of crowdfunding finance can, however, be extended to the broader possibilities of 'crowdsourcing'. Although the notion of crowdsourcing encompasses the practice of crowdfunding for venture development, it has been explored, in this context, as the additional and supplemental functions that a crowdfunding platform can provide. Specifically, crowdsourcing describes the process of tapping into the public's collective intelligence to complete particular tasks that a company or organisation would conventionally outsource to a third party or perform itself (Market Watch 2008).

This is significant, as the crowdfunding platforms currently available have the potential to access more than funding but critical data and information crucial to the success of the venture. In a real estate investment and development context, this notion of 'crowdsourcing' can be an essential means of identifying the authentic requirements of local communities and stakeholders, as well as potential investors within 'the crowd'.

Lastly, although crowdsourcing can be useful for companies seeking solutions to their challenges, it can also present valuable signals of the potential of a product within the market before it's launched. Furthermore, public and private entities are increasingly embracing crowdsourcing platforms to garner public attention, prompt product/idea validation, expand the size of their talent/resource pool and understand exactly what customers' desire.

Different Sources of Crowdsourcing (as sourced from Cumming 2012: 373):

Crowdsourcing Type	Description of Typology
Participation of Consumers in Product Development and Configuration	Companies ask for comments, suggestions and feedback on current and potential products
Product Design and Development	Companies request the development of a comprehensive new product
Competitive Bids on Specifically Defined Tasks or Problems	Companies ask for a solution to unsolved challenges and problems
Permanent Open Calls	Companies request any relevant information or documentation
Community Reporting and Diagnosis	Similar to the above, only that the work is done by a known community instead
Product Rating by Consumers and Consumer Profiling	Companies request product reviews and opinions for other users to see
Customer-to-Customer Support	Companies encourage customers to assist other customers for consumer knowledge and product design

Table 2: Crowdsourcing Sources

Furthermore, companies embrace crowdsourcing mediums primarily for cost-reduction measures through leveraging off of online resources. Through crowd involvement in the product design and improvement stages, individuals contribute to generating additional value for a company, venture or initiative. Explored further in later chapter, in the context of crowdfunding real estate, 'product design

and improvement' can correspond with digitally-leveraged design and consultation processes towards a particular building being improved or developed.

Additionally, this platform allows for the company (and alternative identities) to minimise the time duration required for novel product development and its costs, maintain better customer acceptance, and increase the user's (or customer's) perception or expectation of new products and ideas.

2.4.5 - Crowdfunding and Digital Leverage

Cumming describes the value that the internet and digital platforms have had on collaboration, openness and participation:

- The web's platforms for collaboration encourage users to consolidate their resources and knowledge
- The web also allows large degrees of accessibility and openness within which people can contribute independently to different ventures and projects
- Lastly, this participation by digital users is dramatically increased due to the ease of access through a globally connected internet ecosystem

These three characteristics extend the capabilities of small and start-up firms (as well as large firms) by encouraging user content to be received and build value for the company (Cumming 2012: 373).

Crowdfunding, in its very nature, by encompassing the three components above, is both a product of the web and a mechanism to evolving the digital world into even further levels of collaboration, openness and participation.

2.4.6 - "Wisdom" of 'the Crowd'

One of the significant reoccurring characterisations of crowdfunding is the perceived "wisdom" of 'the crowd'.

Due to the size and composition of 'the crowd', Cumming explains that this corporate structure may at particular times be more efficient than small teams of individuals. This allows for an efficiency in solving problems, as the wisdom of 'the crowd' solutions are aggregated together, and not averaged. Consequently, individuals in 'the crowd' may construct their own solution by employing others' recommendations, hence resulting in improved solutions for 'the crowd' combined. This manifests the notion of 'collective intelligence', from which knowledge and data become more significant as communities share them (2012: 374). It is also suggested that a diverse group of problem solvers results in a better collective guess through the medium of 'the crowd' (BBC 2014). Moreover, this 'wisdom' of 'the crowd' is both informed by and continually developed by the increasing connectivity of the digital age, whereby, as Spirer describes, is centred around the speed, quality, transparency and relevance of information flow, as well as the relationships which form around it (Spirer 2013: 234).

2.4.7 - Crowdfunding Mechanics

Fundamentally, most crowdfunding initiatives are accommodated on purpose-design digital platforms, which require an entrepreneur to meet a particular funding goal within a prescribed time frame. If the prescribed funding goal is not pledged by the platform's funders, the project is terminated and the funds are returned back to its funders (Maron 2015).

<u>Passive versus Active Participation in Crowdfunded Ventures:</u>

1) Passive Participation by 'the Crowd':

A large majority of crowdfunding initiatives do not present opportunities for investors to become actively involved in the venture, such as voting for particular product preferences or contributing resources to the company. Hence, as Cumming explains, entrepreneurs who have adopted a passive crowdfunding strategy are primarily interested in raising capital, and not using an active crowd through relinquishing control (2012: 375).

2) Active Participation by 'the Crowd':

Other crowdfunding mechanisms allow for investors to become actively involved in the venture. This may be through the provision of valuable and direct feedback to the entrepreneur, the capacity for voting and the participation in profit sharing.

2.4.8 - Crowdfunding and Venture Capital

One of the largest challenges faced by entrepreneurs at the inception of their proposed venture is the sourcing of outside capital, which is informed by entrepreneurs' potential lack of a sufficient cash flow and collateral base. In the context of this report, the same difficulties may face start-up real estate developers who lack credibility and the necessary equity requirements for redevelopment. While conventional funding mechanisms, such as bank loans or venture capital, exist to provide large(er) monetary investments, crowdfunding solicits smaller contributions from a larger magnitude of people to fund an equivalent amount (Maron 2015). This, therefore, functions as a venture capital mechanism, through which entrepreneurs may seek capital for project-specific investments or for initiating novel ventures, such as the inner-city real-estate opportunities being addressed in this paper.

Particular crowdfunding developments, outside of the South African market, have demonstrated that crowdfunding may be a medium for raising funds for high-growth companies (start-ups) that are ordinarily capitalized by venture capitalists – and not simply small projects. (Cumming 2012: 369). This brings into focus the future role of conventional venture capitalists operating alongside an expanding base of 'crowd' investors. Significantly, as Spirer suggests, VCs will not be replaced, but rather they will find themselves being forced to become more flexible and transparent in their financing approaches, in response to a much larger pool of capital (2013: 237).

Upon its local commencement, this venture-capital crowdfunding structure will be critical to the development of the South African start-up community by providing additional financing channels for those business entities formerly unable to access conventional (institutional) streams of finance. Furthermore, where large and incumbent venture capitalists are unable to deploy capital due to perceived risks, venture crowdfunding may be able to fill the gap. Lastly, crowdfunding could make the South African ecosystem more affordable by lowering investment minimums and increasing investment opportunities for the low-to-middle income.

2.4.9 - Proposal of Alternative Financing/Development Mechanism - Crowdfunding

The following chapters explore the proposal and potential for crowdfunding as an alternative financing mechanism for redeveloping inner-city brownfield redevelopment.

2.5 - Crowdfunding Real Estate Investment and Development

2.5.1 - Introduction

> *"This is true democratization of real estate investing. It is real estate for all."* (Turnbull 2015: 88)

As an introduction to this important subchapter, several significant questions (in order of specificity) may be asked that focus on the fundamental essence of this report's proposal:

1. What if we consider crowdfunding to be an investment or venture capital mechanism, in which 'the crowd' commit varying amounts of capital to, in turn, gain access to the future returns/ownership of an idea?
2. Specifically, what if we consider crowdfunding to be a medium from which money could be raised for building development?
3. Furthermore, what if we consider crowdfunding to be a means of raising capital for necessary building redevelopment within inner-city frameworks?
4. Lastly, what if we consider the tax incentives made available to building owners and developers, and the effect that this could have on 'the crowd's ownership and return?

2.5.2 - Real Estate Investment through Crowdfunding

Craig Turnbull, likens crowdfunding to the notion of 'cooperative investing'. In the context of real estate, this mechanism of corporate investing has been regarded as a highest and best form of indirect property investment. Unlike REIT structures, crowdfunding is usually performed on a smaller scale, whereby money can be invested directly into particular properties and projects (2015: 77). Therefore, rather than an investor committing their capital into a large pool of finance, there can be greater selectivity and choice of preference.

> *"Crowdfunding fits neatly in the gap between what a lone investor can achieve and what the impersonal multi-national fund managers undertake."* (Turnbull 2015)

Essentially, a crowdfunding real estate platform becomes a middle ground for investors deploying capital into development project and developers seeking capital for development projects.

2.5.3 - Typical Steps for Crowdfunding a New Venture

Real Estate Magazine (2016) describes the following steps that should be taken when crowdfunding a new real estate development project

1. Select a real estate crowdfunding platform (such as Fundrise) and create an account
2. Select an available real estate investment/development opportunity that aligns with desired potential returns, risk and time horizon
3. Verify investor identity and credentials, and make crowdfunding investment
4. Manage investor's real estate investment portfolio online
5. Receive returns when each investment in portfolio matures

2.5.4 - Advantages to Crowdfunding Real Estate Development

For Investors:

- Investors are able to invest smaller amounts of capital than conventionally required to access ownership of their own real estate
- By combining and consolidating funds from 'the crowd', higher valued properties, specifically commercial and industrial in nature, become accessible to less-capitalized investors
- As a product of the above advantage, investors in 'the crowd', although proportionally distributed, can access higher returns from more expensive assets and building types than would typically be accessible
- Investors in 'the crowd', through crowdsourcing, can also gain access to a combined wisdom and feedback loop
- Crowdfunding platforms connect the investor directly to the real estate investment or development without involving a middleman or broker.

- Lastly, commercial real estate is considered to be a highly stable asset class, generating higher rates of return for its investors. Due to smaller investors' portfolios being highly invested in residential assets, the diversification required to weather real estate bubbles with alternative classes is not available. REITs offer a mechanism to provide diversification, but values do not necessarily correlate directly with real estate fundamentals. Crowdfunding, however, provides a more direct investment, thus benefitting investors (Crowdfund Insider 2014B).

For Developers:

- Traditionally, investment in commercial real estate is generally considered to be a long-term investment vehicle, because the transaction costs of purchasing and selling real estate make direct investment in real estate over a short-term period difficult (Miles 2007: 203). Developers, by sourcing money from a crowdfunding platform and leveraging off of the reach of digital media, can expedite the financing process and progress with project initiation more speedily
- Smaller developers, with an appropriate level of experience and competency, whom were typically avoided by large institutional financiers, can fund new development projects from money sourced by the crowd
- Both small and larger incumbent developers, can leverage off of the crowdsourcing capability of crowdfunding platforms to accelerate the design development and market feasibilities components of the development process. This can be achieves by sourcing effective and informative input from local markets

2.5.5 - Crowdfunding Real Estate Structures

The alternative funding models explored within this report are debt and equity contracts.

<u>Equity Ownership:</u>

Typically, a crowdfunding platform could source the required deposit or initial equity from 'the crowd' and then obtain long-term financing from a conventional institutional entity. Alternatively, a crowdfunding platform may also aim to raise enough capital to fully purchase and redevelop a building, following which tenant income is paid back to the 'the crowd' as a return. This structure, is one in which the total ownership of the development is maintained by 'the crowd' indefinitely.

Under this structure, and as suggested by Turnbull, crowdfunded real estate platforms may provide an investment return back to investors in the form of dividends or capital growth:

- Dividends would provide investors with regular payments back to 'the crowd' and may also be subject to the capital gains applicable upon the sale of higher yielding properties, such as commercial and industrial classifications.
- Then the returns that occur upon termination or sale of the project, because of inflationary capital growth, may also be reverted back to 'the crowd'. As capital growth requires investors to wait several years before seeing a return, 'the crowd' would typically wish to be compensated with higher returns from development projects that are not dividend paying.

(Turnbull 2015: 104)

This financing structure will be described further in the report's quantitative simulation.

<u>Debt Financing:</u>

Another possible alternative to the above structure is for a crowdfunding platform's financing round to raise enough capital to provide debt finance to developers, subsequently removing the conventional role of large institutional developers.

This financing structure will be described further in the report's quantitative simulation.

Owner-Builder and Owner-First Purchaser Structures

As a means of benefitting from the tax incentives from operating within UDZ framework, a crowdfunded real estate platform focused on inner-city brownfield development will either take the form of an owner-builder or owner-first purchaser structure:

- As mentioned in subchapter 2.1, an owner-builder who improves or refurbishes an already existing building within the inner-city will be eligible for a 20 percent straight-line depreciation write-off over a period of five years once the building is brought into its primary function. Under this structure, a crowdfunding platform may partner with the brownfield building's owner(s) to provide any additional capital required for redevelopment. 'The crowd' would then, through an equity structure, benefit from the tax incentives, as well as any future returns (rental and capital gains).
- As mentioned in subchapter 2.1, an owner-first purchaser who purchases an improved or refurbished building from a developer is eligible to incur 30 percent of the purchase price of the improved or refurbished building. Of this amount, this owner-purchaser shall obtain a 20 percent straight line depreciation write-off over a period of five years once the building is brought into its primary function. Under this structure, a crowdfunding platform may purchase (or in part purchase) a redeveloped project from a bone fide developer. 'The crowd' would then, through an ownership (or part ownership) of the development, benefit from the tax incentives, as well as any future returns (rental and capital gains). Similar to the above, investors within 'the crowd' would have an ownership of a conventionally out-of-reach property investment.

(The National Treasury: 2006)

2.5.6 - Crowdfunding Real Estate Types

For crowdfunding residential real estate in the inner-city, a more active development strategy may be adopted to achieve above-average returns that reap comparably more than a buy-and-hold strategy. This can be attained by avoiding single family residential investments and, through benefitting from economies of scale, increase the scope of developments to proportionally reduce the cost of management and improve investors' returns.

For crowdfunding commercial and industrial real estate in the inner-city, a similar methodology can be applied, where the increased scale of development, as well as the leveraging off of technological networks, can improve investor returns and increase the overall progress of redevelopment activity within inner-city UDZs.

2.5.7 - Civic Interest and Social Good in Relation to Inner-City Redevelopment

By leveraging digital crowdfunding platforms as a mean of financing necessary building redevelopment and urban renewal, crowdsourcing can also be an essential civic and social medium for identifying the needs of local residents and communities in building improvement or new development projects.

For example, crowdsourcing (in association with crowdfunding) could identify:

- The scale and size of developments required by the local market,
- The typology of developments required by the local market, for example mixed-use, residential, commercial, etc.
- The aesthetics and design language of the development sought by the local market

2.5.8 - The Existing Regulatory Environment

The regulatory environment is critical to the inception, operation and longevity of crowdfunded real estate ventures. If the investor membership exceeds a certain quantity, a financial services license will be mandated for the future operation of the fund. Essentially, regulatory bodies will indicate that the venture is of an investment nature, and will require regulatory oversight and varying levels of procedural compliance.

Although regulatory controls concerning crowdfunding in South Africa are still pending, the effect of such restrictive parameters is crucial to its adoption. As observed in foreign markets, regulators of crowdfunding real estate platforms stipulate that investors should be qualified or accredited and/or also be subject to an elevated investment minimum. The, often, substantial investment minimums (Fundrise - $5 000 and Prodigy Network - $20 000) may disqualify lower-capitalized investors from such an alternative investment mechanism, subsequently decreasing the cumulative investor uptake of crowdfunded developments.

It is imperative, therefore, that local crowdfunding advocates continue discussions with South African regulatory bodies to establish a minimum that qualifies a broad base of potential investors. Only with such regulatory progression and understanding, will a crowdfunding platform attract adequate investment and establish itself as an accessible opportunity for those who cannot typically access certain property asset classes.

It should, however, be emphasized that by increasing the scale of the crowdfunding platform, regulatory and licensing costs can become more affordable (Turnbull 2015: 82).

2.5.9 - Crowdfunding Real Estate on the African Continent

As mentioned above, one of the significant hurdles facing the advent and expansion of crowdfunding as an alternative medium of finance are regulatory controls. Within the context of the African continent, it is likely, however, that there will be increased lobbying for crowdfunding legislation and reform following the launch of the African Crowdfunding Association (ACfA). As Georgina Guedes observes, this association will not only lobby for such regulatory change, but also seek to raise awareness as a platform for developers and cross-border investors (Real Estate Magazine 2016: 100).

ACfA will function as the industry association and representative for crowdfunding companies and professionals across the African continent. Its objective is to liaise with the various countries' Financial Services Boards (FSBs) and regulators to develop an industry structure that is more cohesive, protects investors and makes capital more accessible for all stakeholders on the continent.

On the board of the association are several significant global-industry stakeholders whom have liaised and advised with entities, such as the World Bank, European Union and European Commission, on reforming regulatory frameworks for better accommodating this new financing medium (Real Estate Magazine 2016: 100).

2.5.10 - Drawbacks and Disadvantages of Crowdfunding Real Estate Development

<u>Varying Investment Timelines, Criteria and Goals</u>

One of the significant critiques of crowdfunding real estate platforms is of the individual investors themselves. Investors, for example, may have differing investment horizons, aptitudes for risk and building preferences which, if not managed appropriately, will influence the organizational and financing structures of current and future development projects.

This may achieved through varying restrictions that limit the crowd from early withdrawal, surveys that obtain the preferences of the majority, as well as highly competent management and adequate compliance structures.

Reputation and Investor Trust

Another intrinsic challenges facing crowdfunding platforms is the ability to capture investor confidence and built trust among the investor community.

Market Risk

As with conventional property investments funded by typical forms of finance, crowdfunding a real estate investment will be subject to market risks. There is the risk that the real estate market in the inner-city deteriorates or weakens, subsequently resulting in adverse effects on 'the crowd's' investments. If, for example, the market slows to such as extent that expected prices cannot be reached, 'the crowd' may lose some or even all of their invested capital. A developer will have to ensure that the appropriate margins will allow for a profit irrespective of market conditions.

Economic Risk

Economic effects, such as unemployment, changing interest rates, as well as stricter lending controls and protocols, will have an effect on a crowdfunded inner-city redevelopment project. This may distress the amount of disposal income that 'the crowd' has available to invest, and also have implications on any lending activities undertaken throughout the life of the project.

Risk of Borrowing

If the crowdfunded venture's cost of construction is not funded by 'the crowd' but by conventional lenders, there is the risk of losing the development if sales are not made within an agreed upon amount of time. Similar to above, this may result in the partial or full loss of investors' capital. This, however, can be mitigated through achieving sufficient sales or building uptake to cover a larger proportion of the construction financing from a bank.

2.5.11 - Possibilities and Potential for Inner-City Redevelopment

One of the few precedents on the African continent, a crowdfunding platform known as Realty Africa, demonstrates the potential for an investment class to assist with the advancement of local communities. This could comprise of social housing ventures that provide investors with a return but also advance the development of communities in social need (Real Estate Magazine 2016: 98). This further emphasizes the significance of crowdfunding as both a development and social tool, providing incentive to investors while initiating beneficial economic activity.

Although crowdfunding platforms have existed in several markets overseas, crowdfunding as a venture capital platform, and particularly crowdfunding real estate investment and development within South Africa have not yet been initiated at an observable scale. Furthermore, and essentially, crowdfunding the redevelopment of brownfield buildings within the inner-city's UDZs, in response to tax incentives, has rarely been explored. Consequently, the qualitative and quantitative methodology to follow, speculates upon the opportunities for such a platform through data collection and simulation.

> *"While crowdfunding property development is still in its early stages globally, and especially in South Africa, it looks set to take off both as a property development tool and as an investment platform. Once the foundations have been laid, the sky could well be the limit for crowdfunding participants."* (Real Estate Magazine 2016: 98)

2.6 - Precedent Studies and Analyses/Comparisons

2.6.1 - Introduction

This subchapter aimed to explore two building developments (or redevelopments) that have fully or in-part been financed through crowdfunding. Despite being mixed-use in their programme or function, these projects differ significantly in their scale and scope. Choosing such dissimilar precedents would reveal the effectiveness of crowdfunding and crowdsourcing across scales, capital requirements, building typology and geographic locations.

2.6.2 - Details of Project

Project Name: BD Bacata

Location: Bogota, Colombia

Crowdfunding Platform: Prodigy Network

Visual Representation of the Precedent[6]:



Figure 3: BD Bacata, Columbia

The project, upon completion, will be the tallest skyscraper in Colombia and will, in monetary terms, also be funded by the largest crowdfunding campaign in the world. The planned mixed-use high-rise building will be 66-stories high and consist of 120 000 square meters in development area. This area will encompass retail space, apartments, office space, as well as a 364 room hotel (Crowdfund Insider 2013).

2.6.2 - Analysis and Significance of Project

The building was funded, through the Prodigy Network crowdfunding platform, by 3800 Columbian investors. Raising over $170 million in cash, each investor owns a share in the project, and will reap the benefit of any future returns generated by the development. The minimum investment entry for investors was $20 000, which, in the context of this report, still prohibits many investors from access.

This precedent provides early evidence of the effectiveness of crowdfunding to finance real estate developments at a large scale. Although it does not directly consider the brownfield redevelopment of inner-city property, it provides an appropriate example to how sourcing money from a 'crowd' of investors can effectively fund development.

2.6.2 - Description of the Platform

Founded by Rodrigo Nino in 2003, Prodigy Network now invests in projects across New York, Miami and Columbia, with their portfolio being valued at $600 million and comprising of 5200 investors. Nino has been powerful advocate in the democratization of access to raising and investing capital, and also aims to provide non-accredited investors with the opportunity to invest alongside accredited investors (Crowdfund Insider 2013).

[6] Flickr. (2012). *BD Bacata.* Accessed: 12th of January, 2016. Retrieved from: https://www.flickr.com/photos/bd_bacata/7538184002

2.6.3 - Details of Project

Project Name: Maketto

Location: Washington DC, USA

Crowdfunding Platform: Fundrise

Visual Representation of the Precedent[7]:

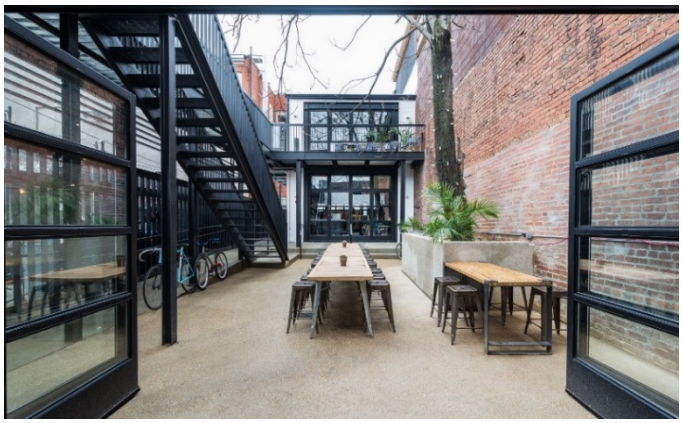

Figure 4: Maketto, Washington DC

Maketto is an open, industrial/modern style development located in Washington DC, USA. Significantly, the project was crowdfunded by Fundrise, the crowdfunding platform, and raised $350 000 from 175 investors at a value of $100 per share (CNBC 2015). Fundrise, according to reports, is currently raising $500 000 per day for further development projects, and estimates that the industry will raise one billion dollars per year in the near future (CNBC 2015).

2.6.3 - Analysis and Significance of Project

The project has been considered a development catalyst on H Street, Washington DC, which is known to be a traditional neighbourhood located east of the city's Union Station. The investors of the project are not only owners of the real estate, but also of its programmatic functions, such as restaurants, cafes and retail stores. It is considered to be a market and a social network of restaurant and retail, with communal seating areas and open-air breakout spaces on the roof – all situated across the three levels of the building (CNBC 2015).

In 2012, Fundrise began raising the capital for the development, which coexisted alongside procedural negotiations with the Securities and Exchange Commission to enable regulation to accommodate online equity offerings for real estate (CNBC 2015).

While the financial scale of this project is considerably smaller than that of Prodigy Network's BD Bacata, it emphasizes the potential for crowdfunding to expedite development through mitigating risks, catalyze neighbourhood development and provide a platform for community engagement/dialogue.

2.6.3 - Description of the Platform

Fundrise is an internet-based crowdfunding platform offering individual investors the opportunity to buy shares in commercial real estate development projects, whereby returns to investors are generated from the developments' rental streams and capital appreciation (CNBC 2015). Fundrise provides a platform in which investors in 'the crowd' can directly access real estate developments across risk-return categories, in the United States' top markets, earning between 12-14% average returns. Importantly. the minimums for investment begin at $5 000.

By leveraging off of the platform's technological efficiency, fees can be reduced, subsequently bettering the returns of real estate investments financed by 'the crowd' (Fundrise 2015).

The development listing process, as described by Fundrise has been elaborated upon below:

[7]Wallpaper. (2015). *Maketto, Washington D.C., USA.* Accessed: 12th of January, 2016. Retrieved from: http://www.wallpaper.com/travel/usa/washington-dc/restaurants/maketto

1. Development projects' details are submitted, by real estate companies, onto the platform and are then reviewed by Fundrise's underwriting team
2. Projects undergo an initial screening to ensure that they align with Fundrise's development and financing standards
3. This is followed by a comprehensive examination of the market, project, finance management and legal components of the venture
4. If successful, the project is then approved and fully funded up-front by Fundrise

Funds are invested and held on a trust basis until the target funding amount is raised by the platform. Once the amount requested is successfully raised, the offer is closed and funds are released to the developer who listed the project on the platform (Turnbull 2015: 85).

For investors, Fundrise generates real estate offerings that are tied to specific pre-funded projects. Investors then generate preferential portfolios that align with their investment horizon, strategy and objectives. Following this, Fundrise discloses ongoing reporting and makes investor distributions at prescribed times. Lastly, investors are then able to reinvest their principal and proceeds into new development offerings (Fundrise 2015).

2.6.4 - Precedent Conclusions

Based on the precedents described above, it is evident that crowdfunding can provide an alternative funding mechanism for financing or part-financing redevelopment projects. Furthermore, these project can differ in scale, and are not limited to one or two programmatic typologies.

As presented in the Bacata precedent by Prodigy Network, crowdfunding can be used to finance large mixed-use projects and is not limited to size. But, as presented in the Washington D.C. precedent by Fundrise, crowdfunding a particular project can be a means of expediting further building redevelopment within important neighbourhoods of the city. This emphasizes the market-effect of crowdfunding, and the potential for increasing stakeholder interest and capital financing for local development.

Significantly, these two precedents don't disclose whether the development took advantage of local tax incentives available to property owners and developers.

2.7 - Literature Review Commentary

Gleaning from past literature, current sentiment, and present observation, the South African inner-city has undergone transformative change through the outflow and influx of inhabitants, transition of governmental leadership, local management shifts and inadequacies as well as the effects of perception.

Despite the in-part degradation and decay of many South African inner-city contexts, of which Johannesburg is an appropriate precedent, entities, such as the Johannesburg Development Agency, have mandated the redevelopment of several buildings and public spaces. These buildings or public spaces have largely been located within earmarked City Improvement Districts (CIDs) and Urban Development Zones (UDZs). Specifically, UDZs, which have been implemented at a national scale, aimed at incentivizing local inner-city renewal through the renovation and redevelopment of existing building stock, as well as the development of new buildings, within these zones. The UDZs have provided building owners and developers with tax deductibles, in an effort to expedite urban renewal. While these tax incentives have been offered, it is evident that it has not drastically increased the re/development activity required for broader improvement of the inner-city's UDZs.

Largely distributed across the inner-city's urban development framework, brownfield buildings have been re-appropriated with unintended planning and programmatic functions, have been ill-managed, and, consequently, are in a condition of decay. Many of these buildings, however, have significant potential for redevelopment and repurposing through a series of redevelopment actions.

Despite this potential for building and broader suburb development, many of the traditional funding sources consider these capital deployments as too risky and, subsequently, refrain from investing in such real estate development ventures. Furthermore, investors with a willingness to invest capital into larger, commercial, and higher-yielding opportunities are excluded due to insufficient equity requirements and surety, as defined by conventional South African real estate lending parameters/standards.

Crowdfunding, which pools together capital from multiple investors, or 'the crowd', has been documented in several precedents as an alternative funding mechanism for real estate investments and developments. Although observations of its effectiveness have been observed in foreign contexts, the potential for it to fund redevelopment of inner-city real estate, an action of social good with the benefit of investment return, holds and proposes important merit, potential and opportunity.

Chapter 3: Methodology and Data Analyses

Chapter 3.1 - Qualitative Analysis

3.1.1 - Introduction

Qualitatively, the below sections detail the mode in which the selected research design and methodology was used to capture, organize and analyze qualitative data in response to the research question (problem).

A survey, which was issued to relevant stakeholders (respondents), aimed to provide a comprehensive and multi-dimensional scope of feedback. This covered such focus areas as inner-city brownfield redevelopment, conventional financing and alternative financing mediums, for example crowdfunding. Moreover, a series of interviews with direct industry participants were also conducted to collect a relevant and focused qualitative base of information from which to deduce findings, derive conclusions and construct recommendations for future research.

3.1.2 - Population and Sample

Survey Sample:

The survey was distributed to potential respondents through the medium of email, via a link to a Google Forms survey platform.

The participants in the survey were selected using the following criteria/ characterizations:

- Built Environment Professionals: developers, architects, quantity surveyors, etc.
- Inner-city Stakeholders: property owners, current investors, potential investors,
- Potential 'crowd' investors
- All of the respondents were known to the researcher, which allowed for a fairly adequate response rate by all participants.
- All respondents are South African citizens, with almost all respondents residing in Johannesburg

All responses to the survey had then been collated, organized and presented in the chapter to follow.

Interview Sample:

Interviewees were selected based their relation to the property development industry, knowledge of property finance, and expertise of developing buildings within the Johannesburg landscape.

All interview responses had then been, in summary form, presented and discussed in the chapter to follow.

3.1.2 - Data Collection and Statistical Analysis

The survey was emailed electronically, with an explanatory mail, to 104 potential participants, with only one follow up email being required to encourage additional participation. 72 people responded, resulting in a response rate of 69.2%. All 26 questions were answered by the 72 respondents, including those that invited paragraph answers.

Interviews were conducted with two significant stakeholders in the built environment industry, and all questions were answered by the interviewees.

3.1.3 - Limitations of the Chosen Survey (Qualitative) Approach

The below constraints present the limitations of the chosen qualitative data collection methodology:

- Survey Constraints
    - Despite the comprehensive data obtained from the 72 respondents, additional respondent feedback, especially from local government/community entities, would have broadened the qualitative feedback received in response to the report's alternative funding proposal.
- Interview Constraints
    - Similar to the above, additional interviews, especially from local government/community entities, would have broadened the qualitative feedback received in response to the report's alternative funding proposal.

3.1.4 - Ethical Considerations

As this data collection methodology was primarily qualitative, there was great consideration for the ethical treatment of participant data. Consequently, all procedural actions were followed to ensure that the research methodology aligned with ethical conduct.

Surveys:

Surveys, which were distributed through the medium of Google Forms, were completed by respondents voluntarily, in their own time, and at their own discretion.

The respondents were not requested to include any personal information or particulars. Hence, the survey forms were completed anonymously and all information has, and will remain, confidential. This intention provided a more appropriate environment within which participants could answer truthfully, subsequently improving the accuracy and quality of the data collected from the survey. All potential respondents were sent an invitation to participate in the survey, and were able to complete the survey by clicking on a link to the online form. The invitation contained the relevant information below:

- Introduction of academic program
- Introduction of research scope, problem and title
- The research discourse as being a fulfillment of a Masters' degree at Wits Business School, University of the Witwatersrand
- The survey as being voluntary, anonymous
- A description of the survey completion platform (mobile and desktop devices)
- Relevant terms and their definitions
- Time window within which the survey form could be completed
- The researcher's contact details in the event of an enquiry

A copy of this invitation has been included in the report appendices (Appendix 3).

Interviews:

Prior to the interviews with relevant stakeholders, an invitation to participate in an interview was emailed to potential respondents. Following this, and prior to the interview being conducted, consent to participate in the interview was received, and permission to record the audio of the interview was requested. Only if such invitation was accepted and permission granted by the interview respondent, did it proceed. The interviews were conducted at a location of the respondent's choosing. All respondents' answers were received anonymously and have no connection to the interviewee's name or company. Personal contact details were left with the respondents interviewed in the event of latter follow up or queries.

Chapter 3.2 - Quantitative Analysis

3.2.1 - Introduction

Quantitatively, as a means of exploring the feasibility of crowdfunding as a potential funding mechanism for inner-city development in South Africa, two simplified real-world simulations were performed for a prospective redevelopment project in Johannesburg's inner-city. The simulation aimed to explore the tax incentives applicable to building development within the inner-city UDZs, and the subsequent effect that it may have for potential 'crowd' investors.

By identifying a potential brownfield site within the inner-city, the simulations attempted to evaluate the performance (return) metrics of a crowdfunding financing structure. Particularly, this structure took the form of either an equity or debt funding model, and analysed the with- and without-tax incentivized metrics applicable to inner-city development within demarcated UDZs. Through this equity and debt simulation (informed by interest rate influences, tax parameters, construction, consulting and leasing costs, etc.), the analyses aimed to determine the comparative return potential for each investor (single and 'crowd'), and offer a critique of its feasibility within South Africa's brownfield real-estate market.

3.2.2 - Description of Methodology

This simulation, which will be described in the section below, used current market rates to perform an equity and debt return analysis for a commercial project funded by 10 000 investors, otherwise referred to as 'the crowd'.

The following assumptions had been made, which were established to guide the narrative of the simulation and analysis:

- **Description of the Development:** The project was commercial in its use classification, leased to a single tenant, and the ownership and renting stakeholders were committed to a 10-year contractual agreement
- **Size of the Development:** Commercial building with 20 000m² GLA
- **Location of the Development:** The development site was contextualized within the inner-city, and, more specifically, was located within the Fordsburg/Newtown urban development zones
- **Additional Considerations:** The project was a brownfield redevelopment venture within the inner-city, located in the Newtown and Fordsburg UDZ. Due to its location, the developer was subject to particular tax incentives and write-offs that would benefit the development's financiers, whom were, in this simulation, 'the crowd' of 10 000 investors

Chapter 4: Research Findings, Analysis and Discussion

The following subsections present the research findings collected through the qualitative and quantitative research methodology. Furthermore, these sections analyse the results and the significant relationships between them.

4.1 - Qualitative Findings (Survey)

4.1.1 - Introduction to Qualitative Findings

A summary of each survey question's results have been represented below. A simplified version of the survey template sent to potential respondents has also been presented at the close of this report (Appendix 2).

4.1.2 - Summary of Qualitative Survey Findings

Section 1: Basic Information and Demographics

The aim of 'section 1' was to determine the basic characteristics of each respondent within the sample, namely: age, gender, ethnicity and income. This information, and the latter data collected, would then be consolidated to identify significant relationships within the data analyses of respondents' answers.

Question 1: Age of Respondents:

The age of the survey participant is significant as it indicates the propensity for particular age categories to engage in new investments, such as crowdfunding inner-city redevelopment. It also indicates the respondents' perception of property ownership and the inner-city for each of the four age classes.

The ages of those who responded to the survey have been indicated in the table below:

Age Category	Number	Percentage
18 – 25	17	23.6%
26 – 35	33	45.8%
36 – 50	16	22.2%
Older than 50	6	8.3%
Total	**72**	**100%**

Table 3: Age of Respondents

Question 2: Gender of Respondents:

Similar to the above demographic characteristics, the gender of the survey participant is significant as it later indicates certain gender perceptions around property ownership, as well as the propensity for particular gender categories to engage in new investments, such as crowdfunding inner-city redevelopment.

The genders of those who responded to the survey have been indicated in the table below:

Gender	Number	Percentage
Male	26	36.1%
Female	46	63.9%
Total	72	**100%**

Table 4: Gender of Respondents

Question 3: Ethnicity of Respondents:

Similar to the above gender characteristics, the ethnicity of the survey participant is significant as it indicates the propensity for particular ethnicity categories to engage in new investments, such as crowdfunding inner-city redevelopment, invest into real estate and explore aspects of affordability.

The ethnicity of those who responded to the survey have been indicated in the table below:

Ethnicity	Number	Percentage
African	11	15.3%
Indian	10	13.9%
White	48	66.7%
Coloured	2	2.8%
Asian	1	1.4%
Total	**72**	**100%**

Table 5: Ethnicity of Respondents

Question 4: Monthly Income of Respondents:

Similar to the above ethnicity characteristics, the monthly after-tax income of the survey participant is significant as it indicates the propensity for particular income bracket categories to invest into debit order and lump sum mechanisms, as well as varying classes of real estate.

The monthly income of those who responded to the survey have been indicated in the table below:

Income Bracket (After-Tax)	Number	Percentage
Less than R5 000	4	5.6%
R5 000 – R10 000	3	4.2%
R10 001 – R20 000	20	27.8%
R20 001 – R30 000	13	18.1%
Greater than R30 000	32	44.4%
Total	**72**	**100%**

Table 6: Monthly Income of Respondents

At this stage, however, these age, gender, ethnicity, and income characteristics remain irrelevant and will only present significant relationships with the introduction of section 2 data.

Section 2: Property Ownership

The aim of 'section 2' was to determine each respondent's property ownership status and preferences for future investment within the asset class. This information, and the data collected prior, would then be consolidated to identify significant relationships within the data analyses of respondents' answers.

Question 5: Ownership of Primary Residence:

The ownership of respondents' primary residence was significant as it indicated, to a certain extent, the respondents' propensity to own property and their perception of it as an asset into which they could invest and deploy capital.

The number of respondents that own their primary residences have been indicated in the table below:

Primary Residence Ownership	Number	Percentage
Yes	42	58.3%
No	30	41.7%
Total	**72**	**100%**

Table 7: Ownership of Respondents' Primary Residence

Question 6: Likelihood of Investing Into Property in Future:

This level of likelihood was significant, as it indicated the respondents' propensity to deploying capital into property assets in the near future.

The various likelihoods of investment have been indicated in the table below:

Future Property Investment	Number	Percentage
Definitely	26	36.1%
Likely	35	48.6%
Neutral	5	6.9%
Unlikely	5	6.9%
Definitely Not	1	1.4%
Total	**72**	**100%**

Table 8: Likelihood of Investing Into Property in Future

Question 7: The Expense of Residential Property:

The question aimed to identify the factor of affordability, and whether investing into residential real estate is considered by respondents as 'expensive'. This directly affects the respondents' ability to purchase residential property through physical ownership.

The responses to whether residential property is considered an expensive asset class to invest into are depicted in the table below:

Residential Property as Expensive?	Number	Percentage
Yes	54	75%
No	18	25%
Total	**72**	**100%**

Table 9: Residential Property as Expensive to Access?

This is significant as it stresses the necessity for more affordable means of property ownership. Crowdfunding, however, could provide this mechanism by lowering the cost of accessing residential, commercial and industrial property.

Question 8: Investing into Commercial and Industrial Property:

This question explored the likelihood of the respondent investing into commercial or industrial real estate in the near future.

These likelihoods have been indicated in the table below:

Commercial and Industrial Property Investment	Number	Percentage
Definitely	17	23.6%
Likely	20	27.8%
Neutral	12	16.7%
Unlikely	23	31.9%
Definitely Not	0	0%
Total	**72**	**100%**

Table 10: Likelihood of Investing Into Commercial and Industrial Property

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Question 9: Property Fund Investment or REIT Ownership:

This question aimed to explore whether respondents were aware of and were invested in property funds or owned the shares of listed property companies.

These property ownership mechanisms do provide cheaper access to property as an asset class, but, however, collect money into a pool of capital from which to invest into a broad portfolio of property typologies.

The respondent's ownership and knowledge of property funds/REIT investments have been indicated in the table below:

Property Fund or REIT	Number	Percentage
Yes	21	29.2%
No, but I am aware of them	34	47.2%
No, but I am not aware of them	17	23.6%
Total	**72**	**100%**

Table 11: Property Fund or REIT Ownership

Section 3: Crowdfunding Basics

The aim of 'section 3' was to determine each respondent's awareness of crowdfunding, prior financing of a crowdfunded venture and the inclination to crowdfund ventures in the future. This information, and the data collected prior, would then be consolidated to identify significant relationships within the data analyses of respondents' answers.

Question 10: Awareness of Crowdfunding:

This question aimed to explore whether respondents were aware of crowdfunding. Existing online platforms, such as Kickstarter and Indiegogo, were used as reference examples.

This was of relevance as it queried whether the respondents had a prior knowledge of the platform. In the context of this study, if many respondents were not aware of the platform or funding mechanism, a level of education would be required for clarity and financing methodology.

The respondents' awareness of crowdfunding has been indicated in the table below:

Awareness of Crowdfunding	Number	Percentage
Yes	56	77.8%
No	16	22.2%
Total	**72**	**100%**

Table 12: Awareness of Crowdfunding

Question 11: Prior Financing of Crowdfunded Venture:

As an extension to question 11, this question explored whether those we were aware of crowdfunding had financed a crowdfunded venture before.

This is significant as it reveals the extent to which respondents have adopted crowdfunding as a financing mechanism for selective ventures. This question did not specify whether this financing was in the form of donation-based giving or as an investment (venture capital) mechanism. Furthermore, it indicates the familiarity that the respondents would have gained through former crowdfunding financing rounds.

The respondents' prior financing of a crowdfunded venture has been indicated in the table below:

Prior Financing of Crowdfunded Venture	Number	Percentage
Yes	11	15.3%
No	61	84.7%
Total	**72**	**100%**

Table 13: Prior Financing of Crowdfunded Venture

Question 12: Awareness of Crowdfunding as an Investment (Venture Capital) Platform:

This question aimed to explore whether respondents were aware of crowdfunding as an investment or venture capital platform, and not solely a platform for donation-based giving. This is significant, as it indicates whether crowdfunding into an inner-city real estate project could be understood to reap a return for potential investors.

The respondents' awareness of crowdfunding as an investment platform has been indicated in the table below:

Awareness of Crowdfunding as an Investment Platform	Number	Percentage
Yes	32	44.4%
No	40	55.6%
Total	**72**	**100%**

Table 14: Awareness of Crowdfunding as an Investment (Venture Capital) Platform

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Question 13: Likelihood of Investing into a Crowdfunding Venture:

This question aimed to explore respondents' likelihood to invest into a crowdfunded venture if it promised an above-inflation return for five years with moderate levels of risk. This question related to an undefined crowdfunding venture, and did not identify it as a property redevelopment project.

The respondents' likelihood to invest into a crowdfunded venture has been indicated in the table below:

Likelihood of Investing into Crowdfunding Venture	Number	Percentage
Definitely	10	13.9%
Likely	45	62.5%
Neutral	10	13.9%
Unlikely	7	9.7%
Definitely Not	0	0%
Total	**72**	**100%**

Table 15: Likelihood of Investing into a Crowdfunded Venture

Section 4: Inner-City Basics

Question 14: Most-Needed Building/Spatial Typologies in the Inner-City:

This question explored the building or spatial type that was perceived by respondents as most necessary when redeveloping portions of the inner-city within the earmarked UDZs. It provides determining insight into the building/spatial type that a crowdfunding venture should be financing. The respondents' perceptions of which building/spatial typology is most required when redeveloping portions of the inner-city have been indicated in the table below:

Rank	Most-Needed Typologies	Number	Percentage
1	Low-Cost Residential	26	36.1%
2	Retail	10	13.9%
3	Social/Community	9	12.5%
4	Infrastructural	7	9.7%
5	Upmarket Residential	6	8.3%
6	Public/Open Space	6	8.3%
7	Office	5	6.9%
8	Cultural	3	4.2%
9	Light Industrial	0	0%
	Total	**72**	**100%**

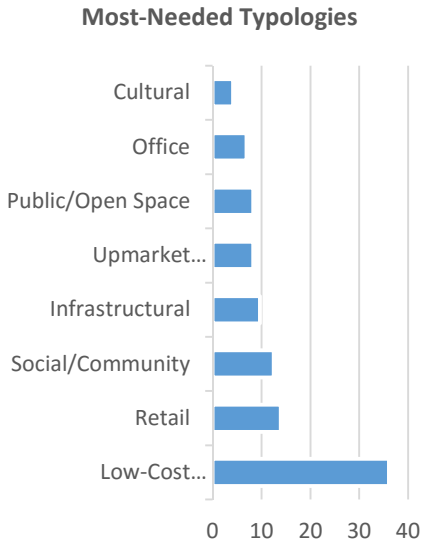

Table 16 and Figure 5: Most-Needed Building/Spatial Typologies in the Inner-City

Question 15: Least-Needed Building/Spatial Typology in the Inner-City:

Similar to the above question in the survey, this explored the building or spatial type perceived by the respondents as the least necessary when redeveloping portions of the inner-city within the earmarked UDZs. It provides determining insight into the building/spatial type that a crowdfunding venture should be not financing. The respondents' perceptions of which building/spatial typology is least required when redeveloping portions of the inner-city have been indicated in the table below:

Rank	Least-Needed Typologies	Number	Percentage
1	Upmarket Residential	21	29.2%
2	Light Industrial	18	25%
3	Cultural	8	11.1%
4	Office	7	9.7%
5	Low-Cost Residential	6	8.3%
6	Public/Open Space	4	5.6%
7	Retail	3	4.2%
8	Social/Community	3	4.2%
9	Infrastructural	2	2.8%
	Total	**72**	**100%**

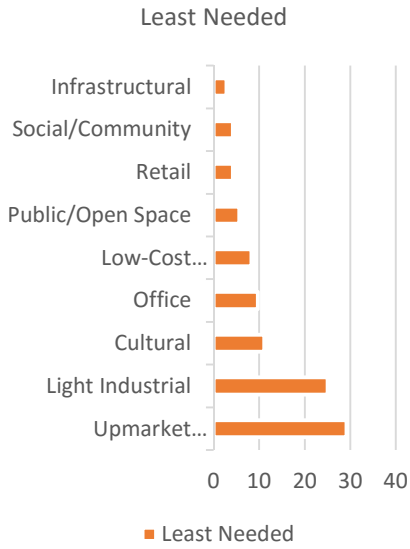

Table 17 and Figure 6: Least-Needed Building/Spatial Typologies in the Inner-City

Question 16: Building/Spatial Typology Investment in the Inner-City:

Directed from an investment perspective, this question aimed to address which building/spatial typology respondents' would most likely invest their money into. This is significant, as it demonstrates the nature of the crowdfunding scheme that could be targeted within the inner-city in future.

The respondents' perceptions of which building/spatial typology would be most likely be invested into when redeveloping portions of the inner-city have been indicated in the table below:

Rank	Most Likely Investment Building/Spatial Typology	Number	Percentage
1	Low-Cost Residential	35	48.6%
2	Upmarket Residential	9	12.5%
3	Office	8	11.1%
4	Retail	8	11.1%
5	Cultural	3	4.2%
6	Social/Community	3	4.2%
7	Public/Open Space	3	4.2%
8	Light Industrial	2	2.8%
9	Infrastructural	1	1.4%
	Total	**72**	**100%**

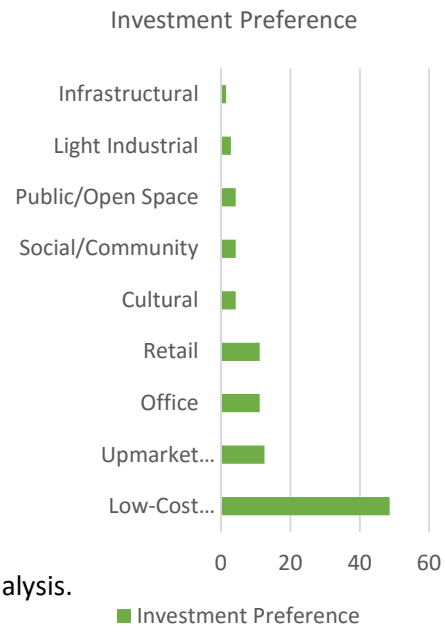

Table 18 and Figure 7: Building/Spatial Typology Investment in the Inner-City

An explanation for such results has been addressed in the below analysis.

Question 17: Ideal Tenant for Selected Building/Spatial Typology:

Most of the building/spatial typologies selected could accommodate multiple tenant or occupant types. This question explored the ideal tenant (occupant) choice made by the respondents.

A summary of the respondents' choice of ideal tenants (occupants) have been indicated in the report's appendices (Appendix 3). These have been represented in relation to the building/spatial typology selected in the question above.

Question 18: Awareness of Urban Development Zone Framework for Redevelopment:

This question aimed to explore whether respondents were aware of the UDZs that have been earmarked by inner-city officials and planners. These are the areas of the inner-city that have been identified as requiring redevelopment and remediation, and are subject to certain tax incentives and benefits.

The respondents' awareness of the UDZ framework within the inner-city has been indicated in the table below:

Awareness of UDZ Framework	Number	Percentage
Yes	42	58.3%
No	30	41.7%
Total	**72**	**100%**

Table 19: Awareness of UDZ Framework for Redevelopment

Question 19: Awareness of Tax Incentives Applicable to Property Owners and Developers:

This question aimed to explore whether respondents were aware of the tax incentives available to inner-city developers and building owners. The incentive takes the form of a tax allowance covering an accelerated depreciation of investment made in either refurbishment of existing property or the creation of new developments within the inner-city, over a period of 5 years or 17 years, respectively.

The respondents' awareness of tax incentives within the inner-city has been indicated in the table below:

Awareness of Tax Incentives	Number	Percentage
Yes	27	37.5%
No	45	62.5%
Total	**72**	**100%**

Table 20: Awareness of Tax Incentives

Question 20: Selection of Inner-City Urban Development Zone for Investment

This question aimed to explore the UDZs (or areas) within the inner-city that respondents would most likely invest capital into. The question presented 6 zones of the inner-city to the respondent.

The respondents' selections of which inner-city UDZ to invest into have been indicated in the table below:

Rank	Selected Zone	Number	Percentage
1	Braamfontein	43	59.7%
2	Inner-City Central Business District	9	12.5%
3	Newtown and Fordsburg	8	11.1%
4	Yeoville and Berea	5	6.9%
5	Hillbrow and Doornfontein	3	4.2%
6	Jeppestown	3	4.2%
7	None of the Above Zones	1	1.4%
	Total	**72**	**100%**

Table 21: Selection of Inner-City Urban Development Zone for Investment

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Question 21: Explanation of Inner-City Zone Selected

This question aimed to explore why respondents selected their chosen urban development zone for investment. Respondents were encouraged to answer through one or two sentences.

A summary of the respondents' selection explanations of inner-city UDZs have been represented in the report's appendices (Appendix 4).

Section 5: Crowdfunding as an Alternative

Question 22: Likelihood of Investing into a Crowdfunded Redevelopment Project in Johannesburg's Inner-City:

This question aimed to explore respondents' likelihood to invest into a crowdfunded redevelopment project in the inner-city. It was identified that the investment would derive an above-inflation return for 'crowd' investors, be of moderate risk and have a recommended holding period of 5 years.

The respondents' likelihood to invest into a crowdfunded redevelopment project in the inner-city has been indicated in the table below:

Likelihood of Investing into	Number	Percentage
Definitely	7	9.7%
Likely	34	47.2%
Neutral	20	27.8%
Unlikely	11	15.3%
Definitely Not	0	0%
Total	**72**	**100%**

Table 22: Likelihood of Investing into Crowdfunded Redevelopment in Johannesburg's Inner-City

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Question 23: Explanation of Apprehension to Invest

This question aimed to explore why respondents selected either 'unlikely' or 'definitely not' for the above question, with the objective of providing insight into why respondents would be unwilling to approach such an investment venture. Respondents were encouraged to answer through one or two sentences.

A summary of the respondents' explanations of an 'unlikely' or 'definitely not' selection for the above question have been indicated in the table below:

Likelihood Selection	Reasoning
Unlikely or Definitely Not	• I would need to run the numbers but off the top of my head I would rather purchase equities in a listed property company. Potential risk is higher but returns would be greater and the cost of asset would be cheaper to maintain, easier to manage and more liquid, • No existing developers with a track record in this field. If the investment was sound enough I would prefer to have a large stake with counsellors I knew and trusted, • Simply because I have never done it before, • No longer live in South Africa, • Property investment needs aligned investment horizons - crowdfunding is exactly the opposite of that. Too many players, too many exit points, not likely to keep your investors on-board. That is my perception, • Low confidence in South African economy, • Don't want exposure to inner-city at the moment, • For me if I was to invest into a crowdfund I'd not be looking for a yielded return but rather a percentage of ownership. For safer/quick exit options to invest in if considered just from a yield POV, • Not my area of interest, especially due to crime and safety, • The uncertainty of this country, • Investment climate not currently conducive, • Consider risk to be high, • Never considered it rather put money into market, • Crowd funding is a perfect source for young professionals to begin investing in property however I am tentative on how the scheme could be developed. If the

	scheme functioned likely a property fund then probably not. If it was developed such that a maximum of 10 individuals group together in 'teams' and the system is more personal I will consider.
Total	**16 Reponses**

Table 23: Explanation of Apprehension to Invest

Question 24: Once-Off Lump Sum Amount to be Invested:

This question aimed to explore the amount respondents' would be willing to invest into a crowdfunded redevelopment project as a once-off lump sum payment.

The respondents' chosen once-off lump sum amounts to invest have been indicated in the table below:

Once-Off Lump Sum Investment	Number	Percentage
R500 – R1 000	2	2.8%
R1 001 – R5 000	11	15.3%
R5 001 – R15 000	15	20.8%
R15 001 – R30 000	14	19.4%
Greater than R30 000	8	11.1%
I would prefer to invest through a monthly debit order payment only	12	16.7%
I would not invest in such a project	10	13.9%
Total	**72**	**100%**

Table 24: Once-Off Lump Sum Amount to be Invested

Question 25: Monthly Debit Order Amount to be Invested:

This question aimed to explore the amount respondents' would be willing to invest into a crowdfunded redevelopment project as a monthly debit order payment.

The respondents' chosen monthly debit order amounts to invest have been indicated in the table below:

Monthly Debit Order Investments	Number	Percentage
R0 – R100	5	6.9%
R101 – R250	8	11.1%
R251 – R500	10	13.9%
R501 – R1 000	11	15.3%
R1 001 – R2 000	9	12.5%
Greater than R2 000	2	2.8%
I would prefer to invest through a once-off lump sum only	17	23.6%
I would not invest in such a project	10	13.9%
Total	**72**	**100%**

Table 25: Monthly Debit Order Amount to be Invested

Question 26: Factors Hindering Building Redevelopment

Lastly, this question aimed to explore respondents' perceptions of which factors most hinder building redevelopment within Johannesburg's inner-city.

A summary of the respondents' explanations of hindering factors for redevelopment have been indicated in the report's appendices (Appendix 5).

4.1.3 - Qualitative Findings and Observations from Survey Responses

The following written components offer a synopsis of the data collected from the 72 survey respondents:

Basic Information and Demographics

- Almost half of all respondents were between the ages of 26 - 35 at 45.8%, while 23.6% of the sample were of ages 18 - 25, and 22.2% of the respondents were between the ages of 36 - 50. Only 8.3% of the sample comprised of respondents older than 50 years of age.
- 63.9% of those who responded to the survey were male, while 36.1% of the remaining respondents were female.
- Almost two thirds of those who responded to the survey were white (66.7%), 15.3% were African, 13.9% were Indian, and the remaining portion was comprised of Asian and Coloured ethnicities.
- 44.4% of the survey respondents earn more than R30000 per month, 18.1% earn between R20 001 - R30 000, 27.8% earned between R10 001 - R20 000, while the remaining minority proportions earned an amount up to R10 000.

The age, gender, ethnicity and income metrics of the sample in this survey were of particular significance as they aimed to identify the ages that would most likely engage in certain real estate investment activities. The income levels of respondents would also determine the potential affordability of crowdfunding platform, although this did not specifically request disposable income available for investment.

Property Ownership

- 58.3% of survey respondents were the owners of their personal residences, while the remainder were not.
- Significantly, 84.7% of the survey respondents will 'definitely' or 'likely' make a property asset investment within the next one to three years. This, to a large extent, reflected a willingness for property acquisition and, more specifically, that those assets will be acquired in a relatively short-term framework.
- Three quarters of the survey respondents consider property to be an 'expensive' asset class to access, which is critical to the broader concerns of this study's proposal. This notion of 'expensive' was relative to the respondents themselves.
- Unusually inaccessible to property investors acting in their personal capacity, just over half of the respondents (51.4%) would likely invest into commercial and industrial property, which further emphasizes the demand for investing into such asset classes.
- 29.2% of respondents were currently invested into a property fund or REIT structure. Moreover, 47.2% were aware of these structures but were not invested, while the remaining portion of respondents were not aware of such structures or were invested. Further education into a potential crowdfunding models may, therefore, be required.

Crowdfunding Basis

- Slightly over three quarters of the respondents (77.8%) were aware of what crowdfunding was, while the remaining portion had no prior knowledge of the financing mechanism.
- Interestingly, a vast majority of the 72 respondents (84.7%) had never committed capital to a crowdfunded venture before. This is essential to the study, as a future platform will need to attract and retain potential crowd funders.

- 55.6% of respondents were not aware of crowdfunding as an investment (venture capital) platform. This is important, as knowing a crowdfunding scheme could reap a profit may dramatically increase its marketability and attractiveness to a potential investor base.
- Over three quarters of the respondents (76.4%) would definitely or likely invest into a crowdfunding venture if it promised an above-inflation return for five years with moderate levels of risk. Specifically, 13.9% would definitely do so.

Inner-City Consideration

These questions to respondents were primarily directed at Johannesburg's inner-city context.

- The low-cost residential building typology was a preferred choice for the 'most-required' and 'most-likely invested into' for respondents (36.1% and 48.6% accordingly).
- The most ideal tenant for such a choice was inner-city workers and students.
- Contrastingly, the least-needed real estate classification, as prescribed by respondents, was upmarket residential property (29.2%).
- 58.3% of respondents were aware of the inner-city's UDZ framework for redevelopment initiatives. This, however, would be improved through the advent of an inner-city crowd platform.
- Contrastingly, only 37.5% of respondents were aware of the tax incentives and rebates applicable to real estate owners and developers within these zones.
- A majority of respondents would likely invest their money into the UDZ of Braamfontein as current/prior development have done 'well' and it is considered to be the least 'risky' by those respondents.

Proposing Crowdfunding as an Alternative

- 56.9% of respondents expressed that they would either 'definitely' or 'likely' invest money into a crowdfunding redevelopment project within Johannesburg's inner-city. No respondents expressed that they would 'definitely not' invest in such a scheme, while 27.8% took a neutral stance and it was 'unlikely' for 15.3% of the respondents to invest. These are optimistic metrics towards the model(s) proposed.
- Importantly, criticisms of the economy, questions about the funding mechanism and exposure to inner-city real estate were the primary explanations for not wanting to invest into this crowdfunded project. These would need to be addressed at model(s) inception.
- As a once-off lump amount, respondents (cumulatively) would be willing to invest evenly proportional amounts of money into a crowdfunded inner-city redevelopment project, while 30.6% would prefer not to invest or to invest solely through a debit order.
- Similarly, as a monthly debit amount, respondents (cumulatively) would be willing to invest evenly proportional amounts of money into a crowdfunded inner-city redevelopment project, while 37.5% would prefer not to invest or to invest solely through a once-off lump sum.
- Lastly, some of the main factors hindering building redevelopment within the inner-city were crime, perception, lack of vision and a prevailing economic climate.

The survey questions have been represented at the close of this document within the report's appendices (Appendix 2).

4.1.4 - Qualitative Relationships between Survey Responses

1. Correlation between Most-Needed and Least-Needed Building/Spatial Typology

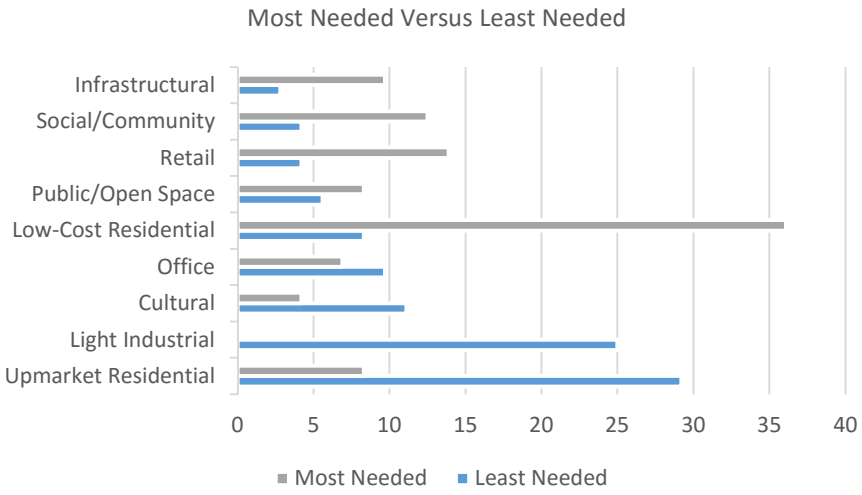

Figure 8: Most-Needed Versus Least-Needed Building/Spatial Typology Correlation

Description: What this graph proposes is a possible correlation between the most-needed and least-needed building/spatial typologies as informed by the survey responses. It is evident, through majority response (36%), that low-cost residential is most required, while upmarket residential was considered the least required typology (29.2%). This information is crucial to the strategic planning of current and potential inner-city development stakeholders aiming to address redevelopment agendas.

2. Correlation between Most-Needed and Most Likely Invested into Building/Spatial Typology

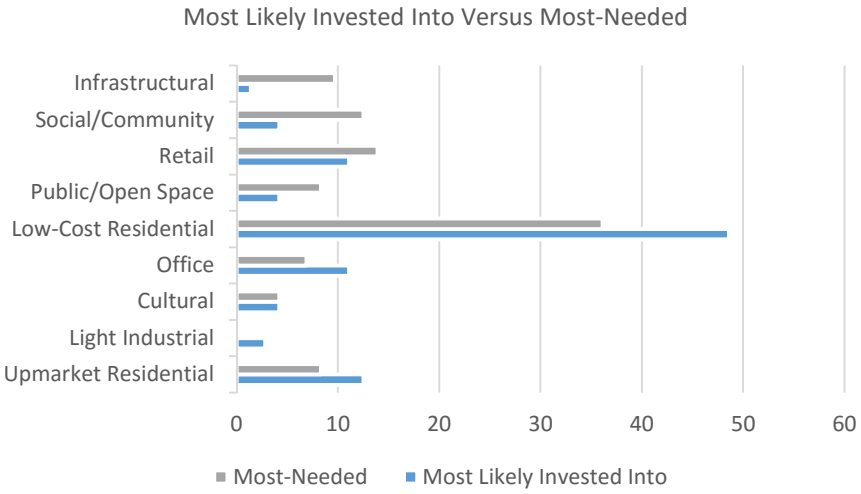

Figure 9: Most-Needed Versus Most Likely Invested Into Correlation

Description: What this graph proposes is a direct correlation between the most-likely invested into against the most-needed building/spatial typologies as informed by the survey responses. It is evident, through majority response (36.1% and 48.6%), that low-cost residential real estate is most required and that would most-likely be invested into by a crowd investor base. Similar to the above chart, this investment preference should be taken into consideration when addressing the typology of future redevelopment ventures.

3. Correlation between Monthly (After-Tax) Salary and Investment Amount

Based on the survey responses collected, a deduction could be made on how monthly salary's received by respondents correlated with the amount that the respondents would be willing to contribute towards a crowdfunded inner-city redevelopment project. These observations have been recorded in the table below:

Income Bracket (After-Tax)	No.	Weighting	Average Once-Off Lump Sum							Average Monthly Debit Order							
			R500 – R1 000	R1 001 – R5 000	R5 001 – R15 001	R15 001 – R30 000	Greater than R30 000	Debit Order Only	I Would Not Invest	R1 – R100	R101 – R250	R251 – R500	R501 – R1 000	R1 001 – R2 000	Greater than R2 000	Once-Off Lump Sum	I Would Not Invest
Less than R5 000	4	5.6%	1	2	0	0	0	1	0	1	1	0	0	1	0	1	0
R5 001 – R10 000	3	4.2%	0	1	0	2	0	0	0	1	0	0	0	1	0	1	0
R10 001 – R20 000	20	27.8%	1	1	6	4	0	5	3	2	3	5	5	1	0	1	3
R20 001 – R30 000	13	18.1%	0	4	3	2	2	2	0	1	0	3	2	1	0	6	0
Greater than R30 000	32	44.4%	0	3	6	6	6	4	7	0	4	2	4	5	2	8	7
Total	**72**	**100%**															

Table 26: Monthly Salary and Investment Amount Correlation

The above table indicates where responses are most concentrated across income brackets and investment amounts for lump sum and debit order configurations. It can be observed that 12.5% of all those earning more than R30 000 would invest through a debit order only, while 25% of all those earning more than R30 000 would invest through a lump sum only. This may be critical when estimating the cash flow projections of the alternative funding model proposed through this study.

4. Correlation between Age and Willingness to Invest into a Crowdfunded Redevelopment Project

Age Group	Definitely	Likely	Neutral	Unlikely	Totals
18 - 25	0	10	6	1	17
26 - 35	6	15	7	5	33
36 - 50	1	7	4	4	16
Older than 50	0	2	3	1	6

Table 27: Age and Willingness Correlation

Description: Represented above is the correlation between the survey respondent's age and their willingness to invest into a potential crowdfunding real estate redevelopment. 85% of all those who would 'definitely' invest into this venture, were from the 26 – 35 age group. Furthermore, 44% of all those who would 'likely' invest into this venture, were also from the 26 – 35 age group.

4.2 - Qualitative Findings (Interviews)

4.2.1 - Interview One:

The first interview was conducted with the chief executive officer of a property development and investment company located in Johannesburg, South Africa. Formerly a lawyer at a large corporate law firm in Johannesburg, with additional experience in private equity, the interviewee has lead the company to developing one of Sandton's largest corporate office developments and has begun initiating development activity in overseas markets, such as the USA.

The interview was conducted anonymously, and significant answers to certain questions have been represented for further discussion below:

Interview Summation

The following deductions have been drawn from the interviewee's responses:

- It would be difficult for new entrants to access capital in the development market, with loan-to-values being increased and bank's stringent capital adequacy requirements having an effect on the propensity to lend to new entities
- It was identified that having increased competition in the financing market would improve the ease of accessing capital for all developers
- Cooperation between local councils and private developers is essential to improving upon the knowledge of each other's requirements and obligations
- Property developers are directed by the search for higher yields and profit. If regenerating portions of the inner-city cannot promise this, developers will look elsewhere. Hence, this 'role' is substantially driven by profit
- The interviewee would not currently invest into the inner-city. This is because it would be difficult for him to exit the deal over time, as it does not necessarily align with conventional development practices
- Inner-city brownfield development is largely being hindered by the perception of investors, potential tenants and developers
- The difficulty with crowdfunding is structuring the platform in such a way that equity shareholdings are not extensively diluted
- There was also the interviewee's concern that, with a growing number of crowdfunding platforms entering the South African market, there will be increasing oversight and regulations, consequently iterating crowdfunding into a mechanism that begins to resemble existing financing structures, such as property funds.
- Lastly, one of the observable criticisms is that, following the onset of mass regulation and legislative oversights by governmental and financial bodies, crowdfunding may become like typical REITs structures and lack the flexibilities that it currently embodies in its early adoption by the market. It is essential, therefore, that crowdfunding through leveraging digital platforms can, as it grows, retain its accessibility to investors and provide focused project-based projects for redevelopment.

The comprehensive synopsis of this interview has been represented within the report's appendices (Appendix 8).

4.2.2 - Interview Two:

The second interview was conducted with one of the two directors of a large architectural firm located in Johannesburg, South Africa. The firm focusses primarily on large commercial, retail and residential developments located both within country and elsewhere in Africa. The interviewee, an architect, also has extensive experience in property development and finance, with further directorship interests within an affiliated property development company also situated in Johannesburg, South Africa.

The interview was conducted anonymously, and significant answers to certain questions have been represented for further discussion below:

Interview Summation

The following deductions have been drawn from the interviewee's responses:

- With comprehensive vision, and the ability to oversee and implement that vision, will the city better integrate all stakeholders and expedite inner-city redevelopment
- Development activity should be led by a city-wide framework established by city planners and officials, and developers should be mandated to operate solely within this framework
- There is a demand for developers to re-enter the inner-city market, but this is not without location specific risks and adequately managing tenants
- Development projects should, in certain capacities, 'give back' to the city and not function in isolation
- Residential accommodation for students and city workers would be the most likely investment classification
- Crowdfunding may be viable for providing new developers with start-up capital
- Crowdfunding, if not structured correctly, may dramatically affect the developers' equity of developments by diluting shareholding. As an alternative, this funding could be sourced from debt lending, and also be a cheaper form of finance to the investor. This is a critical theme, and be a significant factor in designing a financing structure that is beneficial for all ownership interest in a redevelopment project.

The comprehensive synopsis of this interview has been represented within the report's appendices (Appendix 9).

4.3 - Quantitative Simulation and Commentary

4.3.1 - Introduction to Quantitative Simulation

The following two simulations explore the feasibility of 'the crowd' deploying R10 million from 10 000 investors through two fundamental financing structures, namely debt and equity positions. Although certain investors may, in real terms, invest varying sums of money to achieve the R10 million cumulatively, this simulation has been simplified, such that each investor has committed R1 000 into the redevelopment project.

The project is a brownfield redevelopment venture within the inner-city, located in the Newtown and Fordsburg UDZ. Due to its location, the developer is subject to certain tax incentives and write-offs that will benefit the development's financiers, whom are, in this simulation, a 'crowd' of 10 000 investors. The simulation has not been explored exhaustively, but rather aims to speculate upon and propose the possibilities that may exist for such a real estate crowdfunding platform for South African inner-cities.

The two sections below simulate the feasibility of firstly, an ***equity*** position by 'the crowd' and, then secondly***,*** a ***debt*** position by 'the crowd'. The equity simulation proposes the cumulative deployment of R10 million towards a R200 million redevelopment venture, while the debt simulation proposes the cumulative deployment of R10 million towards a R100 million redevelopment venture.

4.3.2 - Representation of Quantitative Simulation (Equity Model)

Introduction:

Developers, both small and large, may require additional equity in order to secure increased conventional financing from institutions for inner-city redevelopment ventures. Crowdfunding, therefore, could be used to bridge an equity-financing gap and allow start-up developers to initiate their first projects or, alternatively, aid larger developers to pursue projects of a greater scope.

If the original developers/building owners are willing to dilute their equity/ownership for a redevelopment venture, both the developer/owners of the property, of which 'crowd' investors are included, will benefit from the income or returns generated by commercial rental yields. Furthermore, the ownership entities will further gain from the tax incentives tied to the possession of inner-city property within the UDZ framework, and potential capital gain through eventual sale.

The income resulting from this gained equity or shareholder position by 'the crowd', will be returned proportionally and taxed in the hands of the investor at an individualized rate. By decreasing the tax obligations of such an investment, the returns back to the crowd may be higher than alternative investments with no tax incentives.

Characteristics:

- Under this structure, an equity crowd investor receives a share of the net profits
- It would typically be an unsecured position determined by a residual value after debt
- With respect to seniority, equity crowd investors would be second to receive a payout
- The return potential is uncapped
- Comparably, the risk is higher for equity crowd investments
- Lastly, under this structure, the investors bears the risk of loss in the event of the property's non-performance

Simulation Metrics:

Metrics	Amount
Total Cost of Development	R200 million
Owner/Developer's Equity Portion	R30 million
Crowd's Equity Portion	R10 million
Institutional Lender's Portion	R160 million
Interest Rate	12%, 240 months

Table 28: Simulation Metrics (Equity Model)

Preliminary Assumptions and Considerations:

- The new redevelopment venture in Fordsburg/Newtown had been anticipated to cost R200 million
- The building's current owners (and future developers) no longer had any debt service repayments for the property, and any future debt service obligations would be as a product of the redevelopment venture's debt financing structure
- Due to a risky lending environment and the development's location within the inner-city, a large institutional lender would only provision a long-term loan with a loan-to-value ratio of 80%. Thus, only R160 million would be provided for, and the building's owner/developer would then require the remaining R40 million as an equity position or capital injection into the development
- The developer, however, could only raise R30 million for this equity portion, and would require an additional R10 million to secure the institutional loan amount of R200 million
- What if, however, through the establishment of a joint venture structure, a crowdfunding platform could provide the R10 million equity requirement from 10 000 investors?
- This would be organized through a 75% and 25% equity position, in which 'the crowd' would receive a proportional share of the development's net profits accordingly

Simulation Methodology:

A cash flow analysis has been simulated to explore the potential for establishing an equity position by investors. The simulation's methodology has been represented by four sequential steps below and should be read in conjunction with the workings (table) that follows:

1. Overall Income

- Current rentals for A-grade commercial buildings within the Sandton and Rosebank precincts average R150 per square meter (per month). A rate of R130 per square meter (per month) was then applied to this potential redevelopment project for a total gross lettable area (GLA) of 20 000m². Although the building would also be of A-grade quality, this rental of R130 would be marginally lower to attract new commercial tenants to the UDZ through a discounted offering.
- Overages and reimbursements were then applied to the rental total derived from above
- With respect to vacancy, the leasing of the building to a single tenant allowed for an occupancy rate of 100% (vacancy 0%) for the simulation
- An expected gross income was then deduced from the above metrics

2. Overall Expenses

- A rate of R75 per square meter (per month) was applied as an operating expense for the building for a total of 20 000m²

- A management fee was then subtracted from the above expense for this gross lettable area
- Lastly, the debt service for carrying out the development was subtracted from the net operating income to ascertain the development's before-tax cash flow. The debt service was computed using the PVIFA formula, into which a 12% rate over a period of 240 months was applied to the total project loan amount of R160 million

3. Developer-Owner's Return

- The developer/owner's before-tax cash flow was determined by the 75% shareholding of the redevelopment venture's equity contribution.
- In alignment with the UDZ tax incentive, 20% of the cost of works for the development was deducted from taxable income over a 5-year period (as an accelerated straight line depreciation), in this case only one year has been represented.
- A reduced taxable income amount was then used to determine an after-tax income amount at a corporate tax rate of 28% (determined by current SARS rates - 2016).
- Finally, the with- and without-UDZ incentive amounts were represented alongside each other to observe the difference between these profit/loss amounts.

4. Crowd Investor's Return

- With respect to 'the crowd', the overall cash-flow was determined by the 25% shareholding of the redevelopment venture's equity contribution.
- This was then reduced to the value of the before-tax cash-flow for each investor within the crowd (before-tax income divided by 10 000 investors).
- An average yearly income for each investor was determined as R360 000 (R30 000 x 12 months), as sourced from the majority distributions of incomes represented in the survey.
- Individual income from the crowd investment was then added to this yearly income to ascertain an overall income for each investor within 'the crowd'.
- In alignment with the UDZ tax incentive, 20% of the cost of works for the development was deducted from this overall taxable income over a 5-year period (as an accelerated straight line depreciation), in this case only one year has been represented.
- A reduced taxable income amount was then used to determine an after-tax income amount at an individual tax rate of R 61 296 + 31% of income above R293 600 (determined by current SAR) rates – 2016).
- Lastly, the with- and without-UDZ incentive amounts were represented alongside each other to reflect the difference between these profit/loss amounts.

<u>Additional Commentary</u>

As observed within the after-tax yields, the return per investor can be considerably more due to the tax incentives applicable. Furthermore, the equity position, informed by the number of investors and the amount contributed by each investor, can be adjusted to return the best yield for those crowdfunding the project. This presents a degree of flexibility for the crowdfunding platform, in which the size and contributions of the crowd can be adjusted to best suit the required return for the project.

Simulation Representation:

Equity Analysis - Fordsburg/Newtown Development		
End of year cash flows (ZAR)	**Year 1**	
1. Income		
Monthly Rental (R130 per sqm, 20 000m² GLA) xx	R 31 200 000.00	
Add: Overages (3% of Gross Sales Above R200 per GLA)	R 6 000.00	
Add: Reimbursements (R8 per sq ft, GLA)	R 160 000.00	
Potential Gross Income (from Pro Forma Statement)	R 31 366 000.00	
Occupancy Rates (Single Tenant - 0% Vacancy)	100%	
Less: Vacancy Allowance	R 0.00	
Expected Gross Income	**R 31 366 000.00**	
2. Expenses		
Operating Expenses (R75 per sqm, 20 000 GLA)	R 10 800 000.00	
Less: Management Fee Collection (5% EGI)	R 1 568 300.00	
Net Operating Expenses	R 9 231 700.00	
Net Operating Income	R 22 134 300.00	
Less: Annual Debt Service (12%, 240 mths)	R 21 140 853.76	
Before-Tax Cash Flow (Total)	**R 993 446.24**	
Implications of Incentive		
3. Developer-Owner	**With Incentive**	**Without Incentive**
Before-Tax Income (Owner-Developer at 75% of Shareholding)	R 745 084.68	R 745 084.68
Less: 20% of the Cost of Works (R30 million = 75% of R40 million)	R 6 000 000.00	
Total Before-Tax Income (Less UDZ Depreciation Allowance of 20% of Works)	-R 5 254 915.32	
Corporate Income Tax (Owner-Developer at 28%)	-R 1 471 376.29	R 208 623.71
After-Tax Annual Income	**R 2 216 460.97**	**R 536 460.97**
Total Return	**R 2 216 460.97**	**R 536 460.97**
After-Tax Yield (Return/Initial Investment x 100)	7.39%	1.79%
4. Crowd-Investor	**With Incentive**	**Without Incentive**
Before-Tax Income (Total Crowd at 25% of Shareholding)	R 248 361.56	
Before-Tax Income (Individual Crowd Investor as 0.01% of Shareholding)	R 24.84	R 24.84
20% of the Cost of Works (R10 million = 25% of R40 million)	R 2 000 000.00	
20% of the Cost of Works (Individual Crowd Investor as 0.01% of Shareholding)	R 200.00	
Average Yearly Income (As Determined by Survey)	R 360 000.00	
Add: Income from Crowd Investment	R 24.84	R 24.84
Total Before-Tax Income	R 360 024.84	R 360 024.84
Before-Tax Income (Less UDZ Depreciation Allowance of 20% of Works)	R 359 824.84	
Individual Income Tax (R 61 296 + 31% of income above R293 600)	R 81 825.70	R 81 887.70
After-Tax Annual Income	**R 278 199.14**	**R 278 137.14**
Total Return	**R 86.84**	**R 24.84**
After-Tax Yield (Return/Initial Investment x 100)	8.68%	2.48%

Table 29: Simulation Workings (Equity Model)

4.3.3 - Representation of Quantitative Simulation (Debt Model)

Introduction:

In place of a large institutional financier, such as a bank, pension fund or insurance company, 'the crowd', in this instance, had been simulated to lend long-term financing for this redevelopment venture and, in return, benefit from the principal and interest payments from the owner/developer. The interest from the debt servicing payments would then be returned to 'the crowd' in proportion to the amount invested into the venture.

Characteristics:

- Under this structure, a debt crowd investor receives fixed interest return
- It would typically be a secured position, whereby the payback of the loan is secured against the value of the property/real estate development
- With respect to seniority, debt crowd investors would be first to receive a payout
- The return potential is capped
- Comparably, therefore, the risk is lower for debt crowd investments
- In the event of default, the investment may be recovered through a process of foreclosure

Simulation Metrics:

Metrics	Amount
Total Cost of Development	R100 million
Owner/Developer's Equity Portion	R20 million
Crowd's Debt Portion	R10 million
Interest Rate	10%, 240 months
Lender's Portion	R70 million
Interest Rate	12%, 240 months

Table 30: Simulation Metrics (Debt Model)

Preliminary Assumptions and Considerations:

- In this simulation, a new redevelopment venture in Fordsburg/Newtown had been estimated to cost R100 million
- The building's current owners (and future developers) no longer had any debt service repayments for the property, and any future debt service obligations would be as a product of the redevelopment venture's debt financing structure
- Due to a risky lending environment, large institutional lenders had refused to finance the whole debt requirement for the project, and would only provision a long-term loan with a loan-to-value ratio of 80%. Hence, only R70 million would be provided by the lender, with the remaining R30 million being in the form of an equity position or capital injection into the development by the owner/developer.
- In this instance, the owner/developer, however, could only provision R20 million towards the development, resulting in a funding shortfall for the project.
- What if, however, through the establishment of a debt financing position, a crowdfunding platform could provide the R10 million shortfall requirement or loan from 10 000 investors?

Simulation Methodology:

A simple cash flow analysis has been simulated to explore the potential for establishing a debt position by investors, in which the crowd provides a portion of the debt to the owner/developer. The simulation's methodology is as represented in the two sequential steps below:

1. Return of Primary Lender

- The annual debt service was calculated for the primary lender using the PVIFA formula:

$$Monthly\ Debt\ Service = \frac{R70\ million}{PVIFA, 12\%, 240\ Months}$$

- This is then multiplied by 12 to determine the yearly debt obligations of the owner/developer
- Finally, the lender's yield was determined as a measure of the annual debt service obligations to the overall loan amount

2. Return of Crowd Lender

- The annual debt service was calculated for 'the crowd' lender using the PVIFA formula:

$$Monthly\ Debt\ Service = \frac{R10\ million}{PVIFA, 10\%, 240\ Months}$$

- The monthly debt service amount is then multiplied by 12 to derive the yearly debt obligation of the owner/developer. The amount is then divided by the total number of investors in the crowd to determine the return per crowd investor
- Finally, the individual crowd investor's yield was then determined as a measure of the annual debt service obligations to the overall loan amount

Additional Commentary:

It should be noted that the interest rate can be adjusted to best suit the structure of the crowd lending position. Furthermore, there may also be opportunity for the crowd platform to fund the entire loan component of the project through a debt position.

Simulation Representation:

Debt Analysis - Fordsburg/Newtown Development	
Financing Parameters	
Developer's Equity Position	R 20 000 000
Institution's Debt Position	R 70 000 000
Crowd's Debt Position	R 10 000 000
Total Development	R 100 000 000
End of year cash flows (ZAR)	**Year 1**
1. Return of Primary Lender	
Annual Debt Service (12%, 240 mths)	R 9 249 123.52
Yield on R70 million	13.21%
2. Return of Crowd Lender	
Annual Debt Service (10%, 240 mths)	R 1 154 847.55
Repayment to Each Investor (Divided by 10 000)	R 115.48
Yield on R1 000	11.55%

Table 31: Simulation Workings (Debt Model)

4.3.4 - Quantitative Findings and Relationships from Simulation

The Equity Model

The 'equity model' simulation speculates the possibility of 'the crowd' acquiring an equity stake within a potential inner-city redevelopment project, such that the ownership of the development entitles 'the crowd' to commercial rental returns, capital gains and the tax incentives applicable to buildings within the inner-city's UDZ.

Although the benefit of capital gains have not been realized in the equity simulation, the difference between the with- and without-incentive returns demonstrate the potential for such a platform to crowdfund social investment, while providing a return greater than investment into commercial real estate outside of the inner-city's UDZ framework.

In principle, this may be feasible, but in practice, it may be challenging for developers/current owners to relinquish their equity positions and dilute them with new shareholders. As observed within the interviews with relevant industry stakeholders, debt is the 'cheapest' form of financing mainly because pro-rata redistributions back to shareholders can be far more costly for a company's founding ownership entities. Contrastingly and, most significantly, the raising of new equity will allow the development company, either new or established, to initiate larger inner-city redevelopment projects that reap a proportionally higher return for all stakeholders. This emphasizes the great potential for a crowdfunding scheme operating under an equity structure, in that it can be the expediting agent for project initiation and for increasing project scale.

The Debt Model

The 'debt model' simulation speculates the possibility of 'the crowd' assuming a lending role within a potential inner-city redevelopment project, such that all (or part thereof) of the debt is provided to the owner/developer through crowdfunding.

Although the benefit of a tax incentive is not applicable due to a lack of ownership, the speculated returns computed in the simulation present the potential for such a platform to crowdfund social investment, while providing an above-average and inflation-beating return for investment into commercial real estate within the inner-city's UDZ framework.

This report, because it is proposing crowdfunding real estate generally, does not prescribe a particular equity or debt structure. With both options being available to potential investors directing their capital to inner-city redevelopment, the choice would be informed by investor preference. If an investor is seeking physical ownership of inner-city property, and is comfortable with the higher risk, an equity crowdfunding position will be the structure for him or her. If, however, an investor is seeking consistent, lower-risk returns, which are detached from physical real estate ownership, a debt crowdfunding position will be the preferred structure for him or her.

Significantly, both investment forms, will, as alternative funding models, expedite inner-city redevelopment activity through accelerated funding provision.

Chapter 5: Conclusions and Recommendations for Further Research

5.1 - Conclusion Preface

Although an exhaustive analysis into potential crowdfunding structures has not been performed in this study, qualitative feedback, quantitative simulations, and the precedents drawn from overseas markets demonstrate the ability for such a platform to compete with and possibly replace conventional real estate investment and development models. By structuring a crowdfunding scheme, such that tax incentives can be taken advantage of, equity portions can be attained, and/or partial debt contracting could be initiated, crowdfunding could be a highly effective medium for accomplishing two fundamental objectives:

- Firstly, to provide financing from 'the crowd' that expedites developers' (both small and large) funding rounds so as to accelerate the redevelopment of residential, commercial, industrial and other real estate within the South African inner-city UDZ framework.
- Secondly, to provide potential real estate investors access into larger and specific residential, commercial and industrial development projects within the inner-city, while lowering the capital minimums required for investment into this asset class.

As a product of the literature review and its correspondence with the report's methodology, the following conclusions have been drawn. These conclusions are separated into qualitative, quantitative and general conclusions from the report's discourse, and aim to consolidate the overarching views and deductions in response to the report's research questions.

5.2 - Qualitative Conclusions

The sub-sections below explore the concluding views established from the study's qualitative analyses:

5.2.1 - Effectiveness of Local Authority and City Management

One of the significant views observed throughout the qualitative data collection and analysis process, was the necessity for effective local authority/management control and initiative. It was observed that a more accommodating and progressive relationship between inner-city authorities and private developers could mitigate many of the hurdles facing development; and that such development actions could be expedited. Critically, local authorities should establish a clearer and actionable framework for development in which private stakeholders, such as crowdfunded redevelopment ventures, could 'plug into' and operate. Integration, therefore, is an essential contributor to redevelopment activity, such that areas within the urban development framework exist in collaboration with others and not in silos.

5.2.2 - Large Incumbents and Small Entrants (Developers)

One of the essential benefits of crowdfunding, from the perspective of raising developer financing, is that if the developer meets the regulatory and due-diligence parameters set out by the crowdfunding platform, the necessary development financing should become available. This may eliminate the potential for a funding bias towards more established and large firms, and as a medium of venture capital, provide necessary financing for younger start-up developers and their developments. Moreover, this may become a significant driver in the creation of new business entities and forms of employment within the built environment industry. This democratization of real estate development financing, therefore, will have the significant effect of providing under-capitalized development entities with development finance and, more broadly, accelerate the redevelopment process for both large and smaller development stakeholders.

5.2.3 - Perception and Proximity

Locational Attributes

Critical to the adoption of a new crowdfunded redevelopment project is the context in which the proposed building project exists. As observed in the survey, Braamfontein, an area within the inner-city urban development framework, would most likely receive further investment as it has shown substantial built and infrastructural progress over the last five years. This broad-based improvement and development traction would increase investor sentiment and confidence, and subsequently bring more capital into the area. Contrastingly, other locations within the inner-city urban development framework have seen little-to-no redevelopment activity thus far; and such status can significantly diminish initial investor confidence for redevelopment. This scenario might, however, present an opportunity for several crowdfunded building redevelopment ventures to begin and progress concurrently to expedite the broader precinct's perception of the community as attractive and ripe for investment

Consequently, the perception of a particular inner-city UDZ (by investors) is critical to whether the zone receives investment capital and how much. For example, the perceptions of high-risk factors, such as crime, ill-management, inaccessibility etc., all contribute to whether investors believe in the redevelopment potential of an area. Furthermore, as represented by questions 20 and 21 in the research survey, proximity of the chosen UDZ to amenities, such as retail, universities and offices, is essential to zones receiving investment capital.

Moreover, many investors in physical property would, within their investment selection process, visit potential sites in first person to justify a particular decision. If, however, these sites are perceived as too dangerous to visit, they may lower the possibility of receiving funding. Additionally, brownfield sites, which are inherently in dilapidation and decay, may also be hazardous for potential investors within 'the crowd' to explore and perform due diligence.

Perception Solely in Investment Terms

It is evident that, although investing into a crowdfunded inner-city redevelopment project would provide substantial physical improvements to a building(s), as well as social benefit its users and broader community, many of those who were surveyed and interviewed expressed a weariness to deploy capital due to the investment risks inherent. Hence, one may propose that despite the significant benefits brought about by inner-city redevelopment, investors view this potential opportunity in investment terms solely. Consequently, this sentiment is in opposition to a 'doing good whilst earning returns' mentality, which should, in principle, be the underlying methodology behind every investment choice. This further raised the necessity for broadening investor objectives and dramatically increasing the awareness of such a financial and social investment opportunity. As proposed by this paper, it is observed, however, that crowdfunding could provide an alternative financing mechanism for single building projects, targeting local investors who wish to be involved in the redevelopment of their own city while benefitting from the returns of their 'crowd' investment.

Sentiment and Stakeholder Buy-In

Crucial to the success of crowdfunding as an alternative funding mechanism for inner-city redevelopment is the substantial effect of sentiment. In this case, investor confidence towards both the prospects of crowdfunding and the future of the inner-city will be critical to its adoption and longevity. If the tone of the market (or potential 'crowd') is one which is deterred by the inner-city and new potential models for financing its redevelopment, crowdfunding as an alternative will not progress. If, however, essential stakeholders buy into this alternative through a 'bullish' sentiment, there will be enormous opportunities for inner-city redevelopment and new models to finance it.

5.2.4 - Low-Cost Residential Property as a Preferred Investment

As evidenced by the data collected from the survey, low-cost residential property was chosen by respondents as the most preferred building/spatial typology to invest in and has such been one of the most accessible building types for consumer/personal investment. Many real estate investors would have invested in lower-risk, low-cost residential units within a personal capacity, and would have benefitted from the rental returns of tenants and or capital gains from resale. Despite this, even low-cost residential property has been traditionally inaccessible to investors due to its equity requirement, legal and administration costs.

Importantly, this further emphasizes the potential that crowdfunding can provide 'the crowd' with investment opportunities to finance low-cost residential property, as well as higher-return typologies, such as commercial and industrial real estate.

5.2.5 - Technological Effects on Real Estate

It is evident that novel technological platforms, such as crowdfunding, and more broadly crowdsourcing, will transform the design and resolution processes of both development and redevelopment activities. By leveraging off of these mediums, both financing and the decisions informing built possibilities can be democratized. This results in the redevelopment of buildings that are no longer conceived and evolved in isolation, but are rather funded by the community (inner-city) and programmatically shaped by its users.

Through the reach and accessibility of online resources, 'the market', towards which redevelopment projects are directed, can through an aggregative process determine what is most appropriate for a location within the inner-city UDZ with respect to: its size, typological make-up, architectural language etc. This evolves the development process into one not primarily driven by the bottom line but rather one that is mutually beneficial to all of its stakeholders/users. It is this perpetual development of technology, and its steady integration into the practice of all components of real estate, that suggest and support the potential for crowdfunding as an alternative, and possible replacement of conventional financing structures.

Lastly, as noted from both surveys and interviews, a portion of respondents have a preference for current structures and that which has 'worked' thus far. Therefore, it is imperative that the introduction and development of such technological platforms can attract and retain these conventional/traditional investors.

5.2.6 - Bad Buildings, Eviction and Displacement

One of the critical challenges facing the redevelopment of inner-city brownfield real estate is that of inhabitant eviction and displacement. As many 'bad' buildings within the inner-city's UDZ framework are inhabited by illegal parties, the complexity of building redevelopment and renewal is increased. Part of the process, therefore, is the manner in which building inhabitants are settled elsewhere in order for redevelopment work to continue. This raises several ethical considerations, which may hamper project timelines and decelerate the leveraging of technology through crowdfunding.

Although crowdfunding has the potential to fund such redevelopment ventures (either through debt or equity models), it will be crucial for these platforms operating within the inner-city to extend their involvement beyond financing and address the broader products/consequences of their investment. Perhaps crowdsourcing could be an essential component of this process, whereby collective intelligence and community involvement shape a beneficial outcome for all former and new inhabitants of redevelopment.

5.2.7 - Equity versus Debt Models, and a Future Structure

As observed in overseas markets, as well as within the quantitative simulations, a crowdfunding platform could be positioned in either an equity or debt position.

Critical to the longevity of this crowdfunding platform, however, is its ability to withstand changes in the market and regulatory allowances. For example, although a crowdfunding platform would best leverage off of the tax benefits tied to inner-city renewal, these benefits may eventually cease over time. Thus, equity crowdfunding models will be required to evolve through market disruptions to provide above-average returns, and continue as a platform for capital deployment into redevelopment. Furthermore, with the eventual fading out of the UDZ framework, these structures will be required to scale horizontally and access new markets.

5.2.8 - Defining a Market

One of the considerations crucial for adoption of crowdfunding, has been defining the scope and market of its platform.

With respect to the developer, as previously noted, crowdfunding can certainly benefit smaller/upstart developers short of capital for larger-scope projects. By filling the financing gap apparent in medium-to-large projects, crowdfunding can accelerate the funding process and be a decisive component for whether developments proceed or not. Although, as observed in the interview process, it has been noted that many larger developers already have established funding streams and wouldn't require additional capital and ownership dilution, many of these existing larger financiers of developers may consider inner-city redevelopment as being too risky. Due, therefore, to this restriction of capital deployment to even the largest of inner-city developers, as well as the presence of perceived risk, crowdfunding may have a direct market within such a context.

With respect to the investor, if the appropriate regulatory allowances are established, crowdfunding can attract a broad spectrum of potential investors. From those who could not access property as an asset class, to those who could not access higher yielding commercial property and, finally, to those who could access the highest yielding commercial deals, crowdfunding has great potential to address all investor preferences through a debt or equity funding model.

5.3 - Quantitative Conclusions

These contract structures are chosen by investors within 'the crowd', based on investor preference, risk aversion and sentiment. Although the above simulations do not suggest an exacting means of structuring a crowdfunded real estate development, they do consider the possibilities for such a platform to provide above-average returns to crowd investors while contributing to social and city improvement.

Furthermore, they also describe the potential for crowdfunding to fill existing financing gaps and, therefore, accelerate project initiation. Whether it is the tax incentives exploited through equity ownership or the stability of debt repayments, both options present crowdfunding as a viable alternative to conventional financing models.

5.4 - Concluding Remarks

While a single crowd-financing model has not been explicitly defined for inner-city redevelopment of brownfield real estate within this study, several significant extracts from the literature review, qualitative and quantitative data studies, and following analyses, suggest the feasibility for crowdfunding to coordinate equity and debt capital in alternative funding structures for the real estate industry.

If an effective structure is established that benefits from a suitable debt/equity configuration, tax breaks, lowered investment minimums, easing of regulatory policy, cooperative local council engagement and, importantly, adequate investor adoption, there are immense possibilities for such alternative financing models to expedite the redeveloping and restoring of inner-city brownfield real estate within South Africa.

5.5 - Recommendations for Future Research

The below subchapters describe several recommendations for further/future research:

Survey Extension

As a means of capturing additional respondent data, the survey could be extended to a broader sample audience across more cities.

An alternative survey/questionnaire may also be deployed that is directed towards current inner-city inhabitants within UDZs. Such survey would have the objective of identifying inhabitant (city-dweller) preferences and their expectations for inner-city redevelopment.

Crowdfunding Precedents Analyses

As crowdfunding real estate investments and developments is still a relatively novel financing practice in overseas markets, future research would benefit from an analysis of crowdfunding platforms' performance and effectiveness over time. As the crowdfunding market continues to receive new entrants, future research could identify how certain platforms become more monopolistic in their approach, subsequently escaping most competition. It is these defining attributes that will be of value to future research.

Most significantly, it would also be essential to measure the success of future crowdfunding platforms with South African inner-cities, and their performance within and outside of development tax incentives.

Additional Quantitative Simulation

Beyond what was explored in this research report, further quantitative simulations identifying potential crowd financing structures for brownfield redevelopment projects within the inner-city would be of essential value to the prospect of such an alternative. Furthermore, this analysis of potential structures may be extended to include how the model could evolve to better accommodate different building types, such as residential, commercial, industrial etc., the size and nature of 'the crowd', as well as potential shifts in regulation and incentive opportunities.

Existing Model Analysis

Additional explorations into existing crowdfunding real estate platforms could be performed. This may involve signing up with (and potentially investing into) a foreign crowdfunding platform, with the intention of better understanding the feasibility of such an alternative mechanism for the South African context.

Chapter 6: Supplementary Components

Chapter 6.1 - Appendices

6.1.1 - Appendix 1 – Survey Introduction

Dear Participant,

I trust you are having a fantastic festive season.

As the final academic component of my masters' program at Wits Business School, I am currently completing a research thesis on a particular aspect of finance and investment. Specifically, my research exists at the intersection of property (real estate), finance, and architecture, by exploring the feasibility of ***crowdfunding as an alternative funding mechanism for inner-city real estate redevelopment***. Otherwise phrased, my research speculates whether crowdfunding could finance (or partially finance) inner-city brownfield building redevelopment, providing above-inflation returns to 'crowd' investors, while concurrently expediting inner-city building repair and remediation.

As a qualitative source of information, I am sending out a survey to potential participants querying their perception of crowdfunding, its feasibility and appropriateness, and broader questions pertaining to inner-city property and its redevelopment. The survey is anonymous, entirely voluntary, and will take between 5-10 minutes to complete.

It would be a great privilege to have you contribute towards my research endeavors, and if you choose to participate in the survey, I have included a link to the survey form below:

https://docs.google.com/forms/d/1mScIFITCwNBe7YG6YIRuCxvlnM5zvZq4blfwyNuDUIg/viewform

The survey can be completed on both desktop and mobile devices. If you require clarity on any of the questions asked, kindly contact me through my details indicated at the base of this email. I have also listed several relevant terms and their definitions for your reference below:

- **Crowdfunding** – The practice of funding a project or venture by raising monetary contributions from a large number of people, most often performed through online platforms
- **Real Estate** – Also referred to as 'physical property'
- **Inner-City** – Johannesburg's inner-city: located north of the industrial belt and M2 highway, south of Parktown, west of Bezuidenhout Valley, and east of the M1 highway (but inclusive of Fordsburg)
- **Brownfield** - A piece of industrial, commercial or residential property, within the inner-city, that is abandoned or underused, especially one considered as a potential site for redevelopment
- **Urban Development Zones** – An incentive scheme aimed at encouraging inner-city renewal across cities in South Africa, whereby any tax-paying, property-owning entity or individual may claim certain tax benefits within earmarked areas of the inner-city

Kindly note that the survey window will close at 23:00 on Wednesday the 6th of January. Thank you in advance for the time taken and response submitted, I am most grateful.

Yours sincerely,

Elliot Marsden

C: 0832921434

E: ellimars@gmail.com

6.1.2 - Appendix 2 – Survey Questions

Survey questions were distributed to potential participants through the Google Forms Platform. The questions sent to each participant are characterized into broader research themes and listed below:

Survey Questions:

Section 1 – Basic Information

1. What is your age?

a. 18 – 25
b. 26 – 35
c. 36 – 50
d. Older than 50

2. What is your gender?

a. Male
b. Female

3. What is your ethnicity?

a. African
b. Indian
c. White
d. Coloured
e. Other

4. Approximately, what is your monthly income (after-tax)?

a. Less than R5000
b. R5001 – R10000
c. R10001 – R20000
d. R20001 – R30000
e. Greater than R30000

Section 2 - Property Ownership

5. Are you the owner of your primary residence?

a. Yes
b. No

6. Whether you answered 'yes' or no' to the above question, how likely would you invest your money into a property asset within the next 1-3 years?

a. Definitely
b. Likely
c. Neutral
d. Unlikely
e. Definitely Not

This is in your personal capacity and excludes the purchase of your primary residence.

7. In your personal capacity, do you consider residential property to be an expensive asset class to invest your money into?

a. Yes
b. No

Taking into account the deposits required, legal fees incurred and administrative costs involved.

8. In your personal capacity, how likely would you invest into commercial and industrial property?

f. Definitely
g. Likely
h. Neutral

i. Unlikely
j. Definitely Not

9. Are you currently invested in either a Property Mutual Fund or Publicly Listed Property Company (REIT)?

a. Yes
b. No, but I am aware of what these are
c. No, but I am not aware of what these are

A property mutual fund investment can be made through a mutual fund provider, such as Coronation. A publicly-listed property company or REIT (Real Estate Investment Trust) investment can be made by acquiring the stock of a publicly-listed property company on a stock exchange, such as the JSE.

Section 3 – Crowdfunding Basics

10. Prior to this survey, were you aware of what 'crowdfunding' was?

a. Yes
b. No

Platforms such as Kickstarter and Indiegogo are donation-based crowdfunding websites.

11. Have you financed a crowdfunded venture before?

a. Yes
b. No

12. Were you aware of crowdfunding as an investment (venture capital) platform and not solely a platform for donation-based giving?

a. Yes
b. No

13. How likely would you invest into a crowdfunding venture if it promised an above-inflation return for five years with moderate levels of risk?

k. Definitely
l. Likely
m. Neutral
n. Unlikely
o. Definitely Not

Section 4 - Inner-City Basics:

14. Which of the below building/spatial typologies do you consider to be the most needed when redeveloping portions of the inner-city?

a. Office
b. Retail
c. Upmarket Residential
d. Low-Cost Residential (which includes student accommodation)
e. Light Industrial
f. Cultural
g. Social/Community
h. Infrastructural
i. Public/Open Space

15. Which of the below building/spatial typologies do you consider to be the least needed when redeveloping portions of the inner-city?

a. Office
b. Retail
c. Upmarket Residential
d. Low-Cost Residential (which includes student accommodation)
e. Light Industrial (small factories, workshops and craft studios)
f. Cultural (theatres)
g. Social/Community (homeless shelter)
h. Infrastructural
i. Public/Open Space

16. If you were to finance a redevelopment project in the inner-city, which of the below building/spatial typologies would you most likely invest your money into?

a. Office
b. Retail
c. Upmarket Residential
d. Low-Cost Residential (which includes student accommodation)
e. Light Industrial
f. Cultural
g. Social/Community
h. Infrastructural
i. Public/Open Space

17. Based on your answer to the above question, who would be your ideal tenant (occupant) for the selected building/spatial typology?

(Response to be inserted here)

18. Are you aware of the inner-city's urban development zone (UDZ) framework for redevelopment?

a. Yes
b. No

These are the areas of the inner-city that have been earmarked for redevelopment and remediation.

19. Are you aware of the tax incentives applicable to property owners and developers operating within the inner-city's urban development zones?

a. Yes
b. No

The incentive takes the form of a tax allowance covering an accelerated depreciation of investment made in either refurbishment of existing property or the creation of new developments within the inner-city, over a period of 5 years or 17 years, respectively.

20. In which of the below inner-city urban development zones would you most likely invest your money into building redevelopment?

a. Braamfontein
b. Inner-City Central Business District
c. Newtown and Fordsburg
d. Hillbrow and Doornfontein
e. Yeoville and Berea
f. Jeppestown
g. None of the above zones

21. Why would you invest in this zone (area)? Kindly respond with one or two sentences below.

(Response to be inserted here)

Section 5 - Crowdfunding as an Alternative

22. How likely would you invest money into a crowdfunded redevelopment project in Johannesburg's inner-city?

a. Definitely
b. Likely
c. Neutral
d. Unlikely
e. Definitely Not

The investment would derive an above-inflation return for 'crowd' investors, be of moderate risk and have a recommended holding period of 5 years.

23. If you answered 'unlikely' or 'definitely not' to the above question, what would prohibit you from doing so? Kindly respond with one or two sentences below.

(Response to be inserted here)

24. As a once-off lump sum, what amount would you be willing to invest into a crowdfunded building redevelopment project in the inner-city?

a. R500 – R1000
b. R1001 – R5000
c. R5001 – R15000
d. R15001 – R30000
e. Greater than R30000
f. I would prefer to invest through a monthly debit order payment only
g. As a continuation to my answer for question 22, I would not invest in such a project

25. As a monthly debit order payment, what amount would you be willing to invest into a crowdfunded building redevelopment project in the inner-city?

a. R0 – R100
b. R101 – R250
c. R251 – R500
d. R501 – R1 000
e. R1 001 – R2 000
f. Greater than R2 000
g. I would prefer to invest through a once-off lump sum only
h. As a continuation to my answer for question 22, I would not invest in such a project

26. Lastly, what factor do you think most hinders building redevelopment in Johannesburg's inner-city?

(Response to be inserted here)

6.1.3 - Appendix 3 – Survey Response (Question 17)

As sourced from the responses to Question 17 of the survey: *Explanation of Ideal Tenant for Zone Selected*.

Rank	Most Likely Investment Building/Spatial Typology	Ideal Tenant	Priority Themes
1	Low-Cost Residential 48.6%	Lower-to-middle income families, Students, Students/Young Adults Starting Careers, University lease for student accommodation, Students and first-time home owners/renters, middle income/class professionals and/or mature students, Students, Students, (Domestic workers and students), (Students), Young person who recently started working, Young people starting careers working in the CBD, Low-income group and students, Students, Students and other evaluated affordable tenants/owners, Would hope for young professionals to stimulate the area, New graduates, Young Professionals, Inner-city working-class residents, Permanently employed person/s, Young employed individuals and students, Student with confirmed financial background (parents or university or other bursary), Students or blue-collar workers, University students or young professionals, Lower income families who require closer accommodation to their work, Young professionals, Students or young professionals, Students and medium level workers, Students, Young professionals who work in the inner city, Students, Students/startup families and young professionals, Bank or other inner city corporate employees particularly younger employees in their first few years of work. They will benefit from residing close to work, saving on transportation, allowing them to work longer hours as they further their career and are ideally suited to sharing two bedroom units, which are likely to provide the nest return on investment.	• Students • Graduates • Young Professionals • Lower Income • Middle Income
2	Upmarket Residential 12.5%	Single and corporate and young adult, Young exec, Office workers who work for corporates in the inner city (Absa, FNB etc.) who would prefer to live closer to work and save on commute etc. they earn decently but not enough to afford to live comfortably in affluent areas in the north, Young professionals, Young employed middle class, Young Professionals, Professionals and businessmen and tourists, Young Professionals, Adults that have a steady income but also include young investors	• Young professionals • Corporate Workers
3	Office 11.1%	SMEs; as I believe there is a shortage of office accommodation in the inner city at the moment; and have larger scope for growth and potential for developing need for other types e.g. housing and food etc. as they do grow, Well known corporate entity that will draw other businesses in to the same area as well as remain tenants within the building for a long lease period giving investors more confidence in their ROI, Businesses, Some Corporates, A bank Institution, Banks, A relatively successful/steady company, Corporate,	• Well-known Corporates • SMEs • Banks
4	Retail 11.1%	Creative young entrepreneurs, SMEs, Multinational chain stores, Upmarket franchise owners, Lifestyle stores that cater to a variety of needs and attract people of varying income brackets, Anchor tenants or franchised brands, National retailer, Woolworths,	• SMEs • Young Entrepreneurs • Lifestyle • Franchised and National Brands

5	Cultural 4.2%	Private start-up type initiatives, Me, Stall market owners,	• Private • Start Ups
6	Social/Community 4.2%	A market that encourages people developing their talents, Mid aged upmarket male, Someone in need of financial support	• Talent Development • Financial Support
7	Public/Open Space 4.2%	Young professional, Ideally, a privately owned or sponsored public space but for public use and enjoyment - not necessarily "occupied" or tenanted. The private ownership would ensure the maintenance and management of the space, whilst the community or neighbourhood would benefit from the upgrade / development which in turn contributes to and encourages social, economic, cultural and environmental health, connectivity, identity and expression, NGO or State Body,	• Privately-Owned Public Space • NGO • State Body
8	Light Industrial 2.8%	A manufacturer of sort, Young industrial and production-based artists and designers	• Manufacturers • Young production Industrial Designers •
9	Infrastructural 1.4	A company	

Table 32: Ideal Tenant for Selected Building/Spatial Typology

6.1.4 - Appendix 4 – Survey Response (Question 21)

As sourced from the responses to Question 21 of the survey: *Explanation of Inner-City Zone Selected*.

Rank	Selected Zone	Reasoning
1	Braamfontein 59.7%	• Because the infrastructure and demand has been created. The risk of decay is limited in this areas, • Although I believe there is more growth potential in an area like Newtown; which has received less development attention than Braamfontein, I feel that Braamfontein has a somewhat 'proven record' for attracting a large client base; due to its proximity to universities, and I think easy access to Johannesburg's wealthier northern suburbs, via the M1 highway. As a young professional starting out, I'd be cautious to purchase in an area which is higher risk, as I don't have a lot of wealth yet built up to make a risky choice, • I see the most potential in this area, • I can already see the value in the regenerated sections of Braamfontein - and so I'm attracted to the area, • Urban revival in the area. Close to universities. Easy access to highways, gautrain and retail, • Close proximity to universities and learning institutions. From what I understand, Braamfontein has more positive connotations and a more positive reputation, • There are a lot of markets and little shops there which has great potential but there are negative connotations around it and it is seen unsafe area to go alone, • It's already becoming established and close to the university I terms of access, • It's largely office area and is perceived as safe. • It is close to the university and also easily accessed from the highway. Better sense of security and there is a fair amount of redevelopment that has happened there already, • Presence of young people who are creative, innovative and will most likely lead the economy in the future, • Potential of a large number of peeps needing this in the low income. / student arena, • Still a bit of sanity in the environment and proximity to schools and offices, • I would choose Braamfontein simply because there has been a trend of young people wanting to revamp/restore the inner city and have shown great success in doing so, • Because there are already significant developments in Braamfontein. Equates to more value for any building that'd I'd be involved in, • It is close to the university for students and is close to the already developed retail and night life, • It has already had other investors as the pioneers, so less risk as they have proven it can succeed. And it is on the outskirts of town, and close to the northern suburbs meaning wealthier people don't need to cross into town which is still perceived as dangerous. Also there is a catchment of 30,000 students studying at Wits plus another few tens of thousands studying at UJ, • Residential density and never ending demand, • Less risk to invest because this area is currently being redeveloped with a positive outcome and revitalization, • Looks like the trend of development would be necessary, • Proven track record,

		• I believe Braamfontein is a lot more marketable with its landmarks such as Nelson Mandela Bridge and WITS. It is has easier, convenient and safer access to the highway and is closest to other marketable suburbs such as Parktown, • Less risk and could double up as Wits student accommodation, • It is accessible to a diverse target market and has already proved a successful platform for new redevelopment initiatives which could be augmented further, • Large numbers of students who live close to the area, • Braamfontein is a fairly accessible region to an array persons spanning all income brackets, thus any form of UDZ in this area would cater to its population. It furthermore contains tourist attraction sites, such as the Nelson Mandela Bridge, which I imagine would boost the economic climate and make it more attractive to invest in, • Proximity, good infrastructure. Relatively low decayed surroundings, • Close to northern suburbs and major highways. • Proximity to inner city business district but far enough away, • Proximity to Universities, Tertiary institutes, and retail within the area. Large portions of the area are already developed with a bustling student community, and I would therefore consider this area a safer investment, • This is currently the zone most familiar to me. I am also aware there are many students residing in the area, • The current progress in the redevelopment of this area has already appeared to be a success and it seems to be attracting a growing number of citizens, • The current attention it's already getting and future potential, • This area has attracted some attention over the past few years and a lot of redevelopment initiative have been/are being undertaken. I am more comfortable investing in areas with existing critical mass given the scale at which I am likely to invest, • Small business and commercial prospects are rising substantially in Bram, • More manageable area in terms of size. Better state of repair than town itself. Close to good areas such as Parktown, • Familiar area and proximity to universities, • Accessibility, • Existing development is reasonably established and successful, therefore risk is low. Proximity to Park station, Wits etc. is attractive, • Up and coming residential, office and retail zone. close to university, • It is the area that appeals to me most personally, because its edges are most blurred - the boundaries between hip gentrified area (which can sometimes feel fake and contrived) and the functioning, gritty city are less marked than the other areas mentioned. This allows for a more integrated and diverse (income, race, class, age, profession) area. I think all of the areas mentioned in the survey are interesting, and the other options would be good to invest in early (as Braam is already a fairly successfully developed area). • The short history of revitalization of the Braamfontein and Maboneng areas have proved to be very profitable as well as being an economic boost. Young creative professionals are flocking to these areas, to work, to live and for recreation - there's a need.
2	Inner-City Central Business District 12.5%	• Tallest building. Potential "New York" vibe. Surrounding banks,

		• It's already a business zoned off area and already has the structure and foundation in place for offices, • Higher income and spending power of people working in the inner city business areas • Road infrastructure good. Opportunities still applicable to this area, • At the heart of JHB, the Inner City exists within a developed framework (business, transport, government, residential, etc.) and draws from all surrounds. This area requires redefinition and upgrade that will allow the existing institutions and infrastructure to thrive once more, • This area would benefit most from further development, • Fast developing area at this point in time, • Hillbrow and Doornfontein, Yeoville and Berea & Jeppestown still carry too much of a risk factor in terms of both the potential tenants and current state of the area. Newtown and Fordsburg, particular Fordsburg is degenerating due to overused and under maintained infrastructure, illegal or corruptly obtained business licenses, prevalence of beggars and an increase in crime. Braamfontein is overdeveloped in an unsustainable manner catering to a particular target market who visit the city not live the city. The inner city, by default and not without challenges is the ideal location. It falls directly into the target market identified above, is located close to business and is increasingly well maintained, • Less risky
3	Newtown and Fordsburg 11.1%	• Redevelopment that has commenced has been very successful, • Highway access. Already a lot of other developments, • Still has potential to grow (unlike Braamfontein which has probably peaked) but is still quite a safe investment. • A lot of what represents Johannesburg culturally resides in this area. To uplift this area into an "upmarket friendly" environment could potentially promote the enjoyable culture of Johannesburg to a broader spectrum of people who would not have previously ventured to these areas, • There is already promising development there, • Potential, • 1) Centrality of location to major nodes (M1 Highway easy access) 2) A large spectrum of various socioeconomic settlements already coexist & work with the city (Newtown Junction, Oriental Plaza, Maryzfitzgerald Square, Museum Africa & Brickfields) 3) These areas are historically relevant to the development of Johannesburg & potentially have a wealth of heritage to attract both the local citizen as well as the tourist if marketed & developed with pluralism, • Braamfontein has undergone a significant rejuvenation and I feel this can be continued. However investing in the Newtown and Fordsburg areas would allow for significant cultural aspects of the inner city to be renewed and enhanced and thus develop a rich cultural, social aspect that could draw numbers of tourists and residents of Johannesburg. I feel from overseas travelling, the cultural and historical aspects of a city are most important. In cities where this aspect has been preserved and where areas around these points of reference are developed into thriving and inviting spaces offering multiple experiences (retail, cultural attraction and safety) it becomes a valuable commodity and draw card to any city. In turn this development then increases the interest in the area and as more positive development occurs property prices, investment etc. can only increase,

4	Yeoville and Berea 6.9%	• High density areas and more affordable properties. Potentially high demand, • These zones are an important link between the city and suburbia. The development of these suburbs would mitigate the development of islands of gentrification currently existing in JHB i.e. Maboneng, • Great solid building stock. not too many co-owners to negotiate with as low rise high density area, • I think the area is well situated between upmarket Houghton and mid-level Parktown, • Good potential to renovate and densify existing buildings in order to uplift the area and improve on current conditions. Beautiful buildings to be preserved in the areas. Dynamic mix of cultures to build on. Not to exploit the area through development of low cost housing,
5	Hillbrow and Doornfontein 4.2%	• Old residential flats need modernizing and cleaning, • Geographical location, • I see potential in this zone. Some of the zones listed above are already oversaturated and won't give you an adequate return. Sure there is more risk in Hillbrow and Doornfontein but going against the trend can sometimes be a better investment.
6	Jeppestown 4.2%	• I believe that the area has great potential due to its location - near to the Maboneng precinct. The area still requires further development - more accommodation, retail (tailored to the resident community), commercial and amenities (schools, clinics, etc.) to function effectively, • Market, • I own a property in this area, and would like to see the area do well,
7	None of the Above Zones 1.4%	• I think Killarney is really poised for a great development plan,*
	Total	72 Responses

* This, however, is not encompassed within the urban development framework and is thus not subject to tax incentives.

Table 33: Explanation of Inner-City Zones Selected for Investment

6.1.5 - Appendix 5 – Survey Response (Question 26)

As sourced from the responses to Question 26 of the survey: *Factors Hindering Brownfield Development*.

No.	Explanation
1	Buy in from investors. A strong investment case for the maintenance and demand in the city. Infrastructure.
2	I think a general lack of access to knowledge of what exactly is happening in town, and its growth potentials, hinders a will to get involved in it. I think people will only put their money in 'what they know'.
3	Negative preconceptions about the city.
4	Crime and overcrowding of illegal occupancy.
5	Crime corruption culture
6	Pollution and the perception of crime
7	Crime and perception of crime
8	Lack of willingness to invest, which may be due to the following: Investors may expect lack of return, due to lower occupancy rates or high risk tenants that will not pay reliably. Crime rates may also deter reliable tenants.
9	Poverty and crime
10	Crime and poverty mostly but I think there are far greater "New City" developments that are taking place now which are far more attractive to property investors for example Waterfall estate. I think the focus has now shifted to building new city hubs in Gauteng as appose to trying fix run down cities.
11	Legislation and municipal bylaws
12	Engagement from the city itself. The council is not supportive in paving the way or contributing in a meaningful way on a meaningful infrastructural basis.
13	Security
14	Uncertainty of economic climate
15	Safety
16	Crime and the speculation of the inner-city being very dangerous
17	Clarity on rules and regulations, municipal red tape, guarantees of payment by the end user (potential owner) or rental guarantees, and effective ongoing site management company effecting services, cleanliness and ongoing maintenance
18	Security and safety
19	Crime
20	Social unrest.
21	Decentralization through the developments of new central business districts.
22	People's ignorance to the current investment that has already been made and the incentives and potentials available. As well as the stigma around the safety and culture of the inner city.
23	Not suitable for offices as corporates don't like multi-owner buildings. But tenants of all types would avoid a building that required approval of thousands of small owners for making any decision.

24	Sink-holes (bad areas) between good (re-)developed areas. Lack of overall confidence turns redevelopment successes into islands of value in a sea of declining value. Incentives too obscure and not actively driven / marketed by SARS and the City.
25	RISK- Crime, lack of control and management, illegal immigrants
26	It's too crowded, too many foreigners who just want to inhabit and are not interested in the development of the inner city.
27	High Risk
28	It has improved with the Gautrain Park station development but infrastructure might still be a limiting factor. Proper road networks and public transport with good connection to other city areas will be needed to also get people from outside the inner city to want to stay and spend in the inner city.
29	Safety and security
30	Probably funding. This challenge would likely change with the exploration of this crowdfunding concept, provided it is implemented effectively for the South African financial and economic landscape i.e. taking into account the current behaviour and attitude towards saving and investing within middle to lower income segments, which suggests limited to no savings or investments accounts for various reasons.
31	Crime
32	High barriers to entry for smaller role players with regards to capital investment.
33	Lower rentals make it difficult with rising building costs
34	Ignorance and the perception /reality that security is an issue!
35	lack of city building management
36	Distrust in Government promises and development policies; poor management and misused funding; general public safety
37	Stigma about the area and previous failures in redevelopment.
38	The obvious bleh reason, crime and the perception of inner city unsafety. Johannesburg is a strange place, built by and for Europeans, now occupied by immigrants. That's a broad stroke statement, I am aware.
39	Lack of Financing
40	Lack of long term vision by the City Council and an absence of a 'think tank' for scenario planning by the authorities.
41	The incongruity of Public and Private policy with regards to inner-city development as well as the marginalization and disregard for the actual needs of inner city dwellers.
42	The greatest hindrances to me personally relocating to the inner-city, is a combination of the perceived crime and pollution (both noise and environmental); these in combination are what I perceive to hinder redevelopment and investment into Johannesburg's inner-city.
43	Safety.
44	Crime and safety
45	Security and a lack of amenities for the resident population
46	The current financial situation in this country
47	Cost for return
48	Investment environment
49	In my opinion the biggest hindrance is the Local Authority. The inefficiencies within the organization slow down the entire building process.
50	The ''image of the inner city a lot of people have.
51	Crime

52	A high level of crime
53	Safety
54	Negative perceptions of the inner-city
55	crime
56	crime
57	Crime and safety factor, liquidity/exist strategy if needed. Tenant profile of tenant pool.
58	Not sure but certainly fear building invasions, crime etc.
59	1) Safety & Security 2) Lack of funding and demand for the redevelopment (People would rather invest in "safer" areas such as Sandton or other easily managed online investments) 3) The threat of a building being hijacked & the investor losing out on his investment. (relates to point 2 above) 4) The cost of investment - bond approvals (The property market is a very expensive market to enter for the common man (90% of citizens in SA) earning a standard salary in South Africa)
60	Potential investors and urban decay.
61	Crime
62	Insecurity
63	High density residential
64	Poor management and lack of new infrastructure and good public transport
65	Deteriorating infrastructure, lack of parking, perceived crime / security situation
66	access and cost
67	There is a reputation that has been built around safety of the inner city and thus developers do not invest in the area because the likelihood of a reasonable return is not guaranteed. I think development is often based around what that location can provide, whether it be privacy, tranquility or locality to retail and entertainment etc., so I firmly believe that before targeting the residential aspect of the city redevelopment one needs to develop a community/ society of sorts that becomes attractive for one to live in close proximity too, and this includes the viability of public transport systems and the use of such to work etc...
68	Accommodation
69	Lack of public vision
70	Crime and overpopulation having an impact on return on investment.
71	Large developers which buy big buildings and drive prices up yet have long lead times to completion. They deter other entrants and smaller “1 flat" type of individuals from entering the market and have greater interest in quick turnaround times. They create a culture of let buildings and city tourists and deter ownership and belonging.
72	Perceived crime

Table 34: Factors Hindering Building Redevelopment in the Inner-City

6.1.6 - Appendix 6 – Interview Introduction/Invitation

Dear Name,

I trust you are well today.

As the final academic component of my masters' program at Wits Business School, I am currently completing a research thesis on a particular aspect of finance and investment. Specifically, my research exists at the intersection of property (real estate), finance, and architecture, by exploring the feasibility of crowdfunding as an alternative funding mechanism for inner-city brownfield redevelopment. Otherwise phrased, my research speculates whether crowdfunding could finance (or partially finance) inner-city building redevelopment, providing above-inflation returns to 'crowd' investors, while concurrently expediting inner-city building repair and remediation.

As a qualitative and comprehensive source of information, I am inviting built environment professional to participate in a 25-minutes interview to query their perception of crowdfunding, its feasibility and appropriateness, and broader questions pertaining to inner-city property and its development.

The answers from the interview would be received anonymously, and participation would be entirely voluntary. It would be a great privilege to have you contribute towards my research endeavors.

Kindly let me know if you would be willing to participate, and I will contact you to organize a meeting at a time and location that best accommodates your schedule.

I have listed several relevant terms and their definitions for your reference below:

- **Crowdfunding** – The practice of funding a project or venture by raising monetary contributions from a large number of people, most often performed through the use of the internet
- **Real Estate** – Also referred to as 'physical property'
- **Inner-city** – Johannesburg's Central Business District
- **Brownfield** - A piece of industrial or commercial property, within the inner-city, that is abandoned or underused, especially one considered as a potential site for redevelopment

Yours sincerely,

Elliot Marsden

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6.1.7 - Appendix 7 – Interview Questions

The interview questions presented to the respondents, which are characterized under three broad themes, have been represented below:

Real Estate Financing

- Could you describe the current financing environment, as well as the ease of accessing external finance?
- How could the process of accessing finance be made easier? For both small and large developers.

Inner-City Building Re/Development:

- How can the development process, both within the inner-city and beyond it, be a more integrated process for all stakeholders?
- Can you speak briefly about the role of governmental and public agencies within the industry and, more particularly, their role in inner-city redevelopment?
- Could you describe the role, if any, that private developers should have in urban regeneration?
- Which property classification would you most likely invest into within the inner-city and why?
- What do you consider to be the largest factor hindering brownfield inner-city redevelopment?

Technology and Crowdfunding:

- Unlike other sectors in the developed economy, the practice of real estate (or property investment, management etc.) has remained somewhat unchanged by digital platforms and utilities. Could you comment on this, and is it a bad thing?
- Can you describe ways in which technology is currently transforming the real estate business, especially here in South Africa?
- Largely adopted in the United States, crowdfunding has become a growing alternative to conventional and institutional mediums of real estate finance. Could you speak briefly on your understanding and belief in the prospect of crowdfunding real estate finance?

6.1.7 - Appendix 8 – Interview 1 Commentary

Description of Current Financing Environment

Typically, the most direct means of accessing funding is from retail lenders, primarily the banks. There are a portion of the banks who specialize in real estate funding. The interviewee assumed that it would be quite difficult for a new entrant into the market to access finance, because a lot of the interviewee's deals are based on past relationships and history with the banks. Furthermore, the loan to value ratio will change depending on the strength of the market, and of the tenant. This ratio, however, is creeping upwards because of the cost of financing. Additionally, the new capital adequacy requirement prescribed by the bank and on the banking sector are making long-term real estate deals less attractive to the banks. Capital is tied up for longer periods and it cannot be churn or get an adequate return on it.

For new developers, the banks would demand a lot more upfront equity and would require more security/surety, which will result in larger loan to value ratios that would approach 50 percent.

Making Accessing Finance Easier

It was emphasized by the interviewee that having more competition would make accessing capital or finance easier. Seen thus far in the market are other financial institutions that are not bound by the same adequacy requirements that banks are subject to, such as large insurance companies. These companies are bringing additional competition into the market, which, in principle, should encourage the conventional financiers to improve their rates and offerings. Despite this, a large collection of new funding entities would be required, and not simply one or two.

Better Integrating the Development Process within the Inner-City

It was emphasized that there should be more cooperation between the developers and the council/local government. If in the rezoning process, this improved cooperation could be facilitated, the development process would be made to be much better. This aligns with better levels of trust and understanding between developers and local council, such that each entity could adequately understand each other's needs and requirements. Furthermore, this will allow the local agencies to understand the developers' challenges and better grasp the current/prevailing property market.

The interviewee finds that, in the current climate, it is very hard to develop and the council proceeds on the basis that developers have unlimited access to funds. This coincides with an increasing cost of development, which is an increase far larger than the costs attributed to building. The council should be very clear in communicating their intentions for the city. This has been good thus far, but it could be improved.

It is important for council to communicate its requirements and apply them consistently for all new private developments. These requirements should be clear, lack arbitrariness, and guide developers towards practical outcomes. The interviewee has found that the lead has been taken by property owners, and not by the council, which is disadvantageous to effective re-development.

The Role of Private Developers in Urban Regeneration

Private developers are focused on their own interests, with profit being their primary driver for involvement in new development prospects. Developers are looking for ways to differentiate their product and to make additional money/profit.

Building/Spatial Typology within the Inner-City to Invest Into

The interviewee expressed that he would not want to invest into the inner-city, as it is an area that has its own peculiarities. It has a lot of old stock, with a lot of it having being converted to residential use. Furthermore, there is a lot of government and institutional stock, which together only resemble a programmatic mix like in a city such as Pretoria. Big business doesn't necessarily want to be located in the inner-city, and there are easier alternative for these tenants. If the city has not allowed urban sprawl, big business could have been restricted to the inner-city but, currently, there is an extensive freedom of location. The above asset classes, as described by the interviewee, are not ones that a conservative property investor would be willing to pursue. A lot of money has been made in residential market due to great demand within the inner-city, but is not considered a 'neat and tidy' investment usually pursued by the development company.

The interviewee also emphasized that one of the primary aims was that of an ideal exit for properties within their portfolio, whereby listed funds could purchase these properties for an appreciated value. Listed funds, however, don't necessarily wish to purchase funds in the inner-city, as the difficulty in selling these inner-city investments dampen their exit options.

Exploring what is Hindering Inner-City Redevelopment

The attitude of investors and developers towards the inner-city. The development costs don't decrease whether projects are built within the inner-city or outside of it, and thus, even bigger tax breaks would be required to stimulate development.

The Effect of Digital Mediums on Real Estate

It is difficult to disrupt the real estate industry as it is a brick and mortar business that is difficult to disrupt physically. Building management systems have been an initial representation of such digital entrants into the sector, but this will become cheaper and expand in its application over time. Currently the technology is seen as a nice to have, but is not necessarily considered an industry 'disruptor'.

It was disclosed that one of the interviewee's largest fears is that space is utilized differently, whereby, with the rise in connectivity, the need for offices becomes obsolete. This has already permeated into the industry, and has resulted in tenants requiring less space per person and becoming more efficient. This, however, has been adopted more in certain industries than others.

Examples of Digital Mediums on South African Industry

It was identified that Google Earth has provided a tremendous ability to gain an effective and quick perspective and understanding potential development areas. As mentioned above, property and building management software have also been applications of such digital progress in the industry. Energy efficiency has become a lot more important and is being increasingly integrated into local buildings through technological systems.

Effectiveness and Potential of Crowdfunding

The interviewee was unsure of the terms on which crowdfunding would be offered. As a developer, one would want to maximize their debt to, in turn, maximize the amount of equity held. If the crowdfunding platform was for equity, it would be expensive funding, but if it were offering debt or a hybrid, it may be viable. If the platform were easy to put in place, then the platform could be possible. Moreover, crowdfunding is essentially another form of accessing markets, and the difference between a listed company and crowdfunding platform was described as minimal by the interviewee. Although it was considered to be more of a disruptor for traditional capital raising entities, crowdfunding will

also become highly regulated, and subsequently look similar to existing financing mechanisms/platforms.

Another concern expressed by the interviewee were the administrative obligations of a crowdfunding platform. This platform would have to be very efficient, effective with due diligence and manage ownership well in order to attract investors.

6.1.7 - Appendix 9 – Interview 2 Commentary

Description of Current Financing Environment

Upon describing the current financing environment and the ease of accessing financing, the interviewee disclosed that in the last three months, specifically, it is becoming more difficult to find a tenant. Subsequently, developers are becoming unable to finance their buildings due to this lack of demand, unless, however there is a fund structure in place. As an individual developer, therefore, the land can be bought and the risk taken in an area, but there will need to be substantial 'punting' to attract a tenant. Moreover, the strength of the lease will determine the amount of funding received by banks. With respect to their current real estate deals, they are highly geared (or leveraged), and it is becoming harder to obtain that gearing. For the company, this gearing is attained through very strong sureties. As a result, this leverage is very high. For a typical person coming from 'off the street' it, is becoming harder. The firm is relatively insulated from that risk, because of the strong surety available. In summation, their funding environment has, due to good leases and financing surety, been not been largely effect in the current market.

Making Accessing Finance Easier

With the respect to how accessing financing could be made easier, a better working relationship between financiers and developers should be harnessed. Currently, banks are increasing funding and raising fees and the default conditions are becoming more stringent to levels that are not considered reasonable. Furthermore, having done existing deals with the financial institutions has not necessarily made accessing new financing 'easier' due to the increasing levels of due diligence and oversight. The interviewee suggested that crowdfunding, could be a mechanism on which to mitigate these factors. These the stricter terms, the interviewee did reiterate that the developer, if financing debt from one source, you 'get' a highly-geared product that you own entirely. Because a developers deals with only one funding source, it is easier to structure more favourable financing/debt terms, whereas the multiple ownership/financing streams within a crowdfunding scheme may make this significantly more complex.

As a side note, the interviewee raised the question of the magnitude of which developers source funding for real estate financing, and expressed that raising large amount of the equity portion of real estate deals results in a lot of dilution for all shareholders.

Better Integrating the Development Process in the Inner-City

The interviewee expressed that the city is trying to increase integration through new incentives, but presently lack the skills to roll out and enforce a broad framework for development. Although there are policies in place, there is a lack of active management building and oversight for such policies. Further described was that Maboneng, a redeveloped district within the inner-city UDZ, was built without abiding by the necessary codes. Once changes had been made by the developer of the precinct, the council became involved in the redevelopment activity too late, and therefore wasn't an active partner in overseeing the progress of the development from the outset.

It was also noted that the city could do better at facilitating broader city development goals to ensure that all districts within the inner-city align with a single framework. There also needs to be a more focused effort towards deriving a city-wide policy and then 'driving' it to conclusion for each building/urban development. Development should give back to the city in some capacity, and the city council should enforce this. Moreover, there should be a very strong vision that all are encouraged and mandated to implement.

Commentary on the JDA

Initially, the Johannesburg Development Agency (JDA) were very effective at rolling out project and, additionally, were very successful at breaking the city up into different nodes. They, however, did this work alone, and the city council and other stakeholders, such as developers, were not forced to into the vision purposed by the JDA. The JDA was able to effect change, but has this attempt at change been performed as a broader group, on a political level, there could have been considerably more value, particularly as an urban space. The JDA largely functioned in isolation and could utilize the assets of the city for development to enhance the city.

The Role of Private Developers in Urban Regeneration

As described by the interviewee, they should not have any. This should be the 'job' of the city, and developers need to comply with the framework established by the city – not the other way around.

Building/Spatial Typology within the Inner-City to Invest Into

- Retail: if developers understood the market, as there is a lot of potential in this space
- Schooling
- Clinics and hospitals
- Student and working-class accommodation: This is driven by a 'sensational' need for housing within the inner city

The above typologies should be taken on by developers within the framework of the city initiating the connecting pieces, such as parks, lifestyle, retail, etc., together.

Exploring what is Hindering Inner-City Redevelopment

The city itself is largely hindering redevelopment within the inner-city. More specifically, it can be traced back to a lack of skills and vision.

Demand for Developers to Re-enter the Inner-City Market in Search of Yields

There is a lot of risk, but as displayed by most of the developers known to the interviewee, if tenants are treated well, buildings are maintained, entrances and exits are controlled, crowding is monitored, and the building is kept safe, these developments will always be over-subscribed.

The Effect of Digital Mediums on Real Estate

The industry is being 'disrupted', but a critical mass is needed. In overseas markets, WeWork and AirBnb, as well as building/tenant management systems have changed certain fundamentals of real estate ownership and management. Within the next decade, developers should be able to have a far greater holder on the components of a building through building automation and connectivity.

Within the South African context, the interview that it was only in the response to 'green' building accreditations that buildings have become more technically proficient and efficient.

Effectiveness and Potential of Crowdfunding

The interviewee expressed that crowdfunding is essential for people who wish to emerge as new developers and, in this application, will function well as financing mechanism. It was proposed, however, that it will fail at a certain size as developers will exit this financing medium to pursue new, more conventional forms of funding. The greatest profits exist in leveraged debt, but it was noted that crowdfunding undermines the mechanism of gearing.

The difficulty with property, is that unless you convert the crowdfunding into an institutional fund at some point in time, then it may be successful. The interviewee expressed that investing in only one building lessons the broader viability of the platform. In a city, such as New York, where holding property is expensive and accumulating enough equity, crowdfunding could be more viable. Crowdsource income could be treated the same as investors. The interviewee expressed the burden of interacting with a much larger fund versus 2 high net-worth individuals, which is the current financing configuration.

Chapter 6.2 - Figure and Literary References

6.2.1 - Figure References

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