CAPITALISATION RATES OF SALES & RENTAL PROPERTIES IN NCD

A Survey Report on Current Capitalisation Rates of Sales and Rental Properties in the 5 Suburbs of NCD

By CJ Valuers Ltd

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ACKNOWLEDGEMENTS

This report is based on a survey conducted by the staff of CJ Valuers Ltd which concluded in March 2023. It was a collaborative effort between CJ Valuers Ltd staff with the many stakeholders in the property development, sales and rental market of NCD.

The survey and this report were guided by the Management of CJ Valuers Ltd. The survey was designed to solicit data on capitalization rates of the various property types in NCD. It is exclusively for CJ Valuers Ltd for its internal use to support the determination of the different values of the residential, commercial and industrial properties across all 5 suburbs of NCD.

The report had several rounds of peer reviews from industry experts as well as market participants during drafting, analysis and report preparation. Any errors or omissions in the report remain the full accountability and responsibility of the authors.

We acknowledge and appreciate the collaborative participation of the many stakeholders who contributed to the success of this exercise. Specific mention to the property developers, property owners and tenants, the many individuals as well as firms who willingly participated. Proper articulation of the trends and determination of the capitalization rates of the various property types will help property developers, owners, lessors and lessees, and financial institutions including banks to make informed decisions in the sales, rentals and financing of their properties. The survey results are for you too – it will help you with a yardstick to determine the value of your property.

We value your worth and thank everyone who have participated in the survey and during the preparation of this report.

Research Training Publicity team of CJ Valuers Ltd
Fenny Nimalang, Junita Winga, Bobby Liriope

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PART I: THE PROPERTY MARKET IN NCD

A. Introduction

Purpose of the survey is to determine a "working range figure" of the capitalization rates in the 5 suburbs of NCD. It is hoped that subsequent work will build on this initial work and improve in determining a more precise "working figure" for the valuation industry to refer to when determining the values of relevant properties in NCD.

Scope of the survey covered all 5 major suburbs of NCD including Granville, Matirogo, Hohola, Boroko and Bomana. It also extended to all the sub-suburbs of these main suburbs. Target respondents were property developers, owners, and tenants of all types of properties from commercial to industrial, residential and vacant land. As a first of its kind, the sample size was relatively small but adequately representative to obtain a clear understanding of the current dynamics at play in the property market of NCD.

Design of the survey was guided by the intent to capture both the qualitative and quantitative aspects of the property market in NCD and deployed electronically and physically. Open-ended questions were designed to capture qualitative information such as perceptions/descriptions. Closed-ended questions were specific for quantitative data.

Methodology involved a literature review, survey questionnaires, interviews, focus group discussions, observations, and stakeholder consultations.[1] The NCD-wide survey collected, collated and categorized raw data from property developers, owners, tenants, and agents. In the absence of a centralized dataset on aspects relating to the survey purpose, attempts were made to solicit as much primary data and complemented surveys of other agencies.[2] These were then analyzed to generate the required statistical data.

The report is in 3 main parts. Part I introduces the survey and provides and overview of the characteristics, current trends and issues in the NCD property market. Part II discusses the current sales and rental rates of the various property types in NCD. Part III discusses the Capitalization rates of the residential, commercial and industrial properties across the 5 suburbs of NCD. Based on these discussions, some concluding observations are made in Part IV.

Valuation of the Twin-towers at the Waigani CBD by CJ Valuers Ltd in January 2022 saw a significant shift in the development as well as the tenancy arrangements and capitalization rates from the norm, indicating the dynamics of a rapidly evolving property market in NCD

1 The design and deployment of the survey (including the survey questionnaire) is summarized and kept on file for reference.

2 These include those conducted by the National Research Institute, Hausples, and property management entities, in recent years

B. General Characteristics of the Property Market of NCD

Property market in NCD show characteristics of a distorted market. This is underpinned by weak regulation, poor coordination, a mismatch in the demand and supply, and exorbitant prices. Whilst vibrant as it may seem, the under-current shows a distorted property market characterized by the:

Absence of market regulation - mandated bodies entrusted to regulate the property market such as the Department of Lands & Physical Planning, the NCDC Zoning and Building Board, the National Housing Commission, have failed miserably in regulating the development, growth, price and other key elements required for a well-regulated agile property market in NCD;

- *Poor coordination among the mandated bodies* - the absence of a concerted or coordinated effort in the development of the property market is evident in the lop-sidedness of demand exceeding supply. This has seen piecemeal approaches lacking cohesion and failure in the enforcement of any regulations (if any) put in place by the mandated authorities;
- *Mis-match in the demand and supply of the various property types in the market* - development of the property market is driven by emotions, instincts, and assumptions. There are no systematic or market assessments of the demands and requirements of the type and affordability of the properties in the market. The demand remains high and the supply is unable to keep pace;
- *Prices of properties are far too high and generally unaffordable* - these have culminated into a market driven by unsolicited or unscrupulous deals that determine transactions. These transactions are exorbitantly high and unaffordable for most SMEs and middle- and low-income wage earners. It has also has skewed the capitalization rates which have in essence been cooked up.

Portrayal of such characteristics, require immediate attention from concerned parties as they pose regulatory risks. Some of these risks are fundamental as they relate to:

Zoning - where properties are mushrooming in zones that are not designated for such properties. For example, having residential properties in commercial and industrial zones. While such violations pose hazards to occupants, it distorts standard computations on pricing or return on investments;

- *Building Codes* - vary by location to protect the safety of a property's occupants and meet standards. Safety measures such as for fire and disaster or calamities or other aspects are not adequately cleared for occupancy by the NCD Building Board. Poor compliance and enforcement of these codes has made it expensive to retrofit a property and has distorted a property's value during a sale or lease as the new owner/lessee pays more to make the required renovations;
- *Access* - many commercial properties are clustered on the access to one or more public goods to thrive. Changes to the availability of that access normally have significant adverse impact on their operations. For example, a retail property that rely on PMVs or vehicle traffic passing through for its customers; or changes to

the traffic pattern have significantly reduced the attractiveness of the property to potential tenants;

- *Taxes* - levied on commercial properties from a various source and are often unexpectedly increased have had financial impact on the property's cash flows;
- *Rental Rates* - high-cost locations in NCD have no rules on how much rental rates can be raised each year. Most commercial multifamily properties whose rentals or vacancy rates, and corresponding market value are limited by local housing authorities;
- *The Environment* - to protect common goods or regulatory authorities can make changes to building requirements or allowable property uses to minimize environmental risk. These changes have adverse impacts on construction projects as they require last-minute changes and incur high costs.

The above are some of the risks that have a direct impact on NCD's property market. Other types of risks include indirect regulatory risks and relate to real estate loans and taxes, and include:

- Property development or properties financed by loans from financial institutions. These loans are regulated to limit the amount and types of loans that a lender can make. Those exceeding allowable limits are forced to reduce their number of commercial real estate loans. These make lending more expensive through higher interest rates and fee pricing or more difficult through onerous underwriting criteria for borrowers;
- Property and income taxes, where changes in tax rates can impact market conditions and make it more or less attractive to purchase a commercial asset in the NCD property market.
- Mitigating these and other market matters and risks require functionally effective bodies occupied by officials with better ethical conduct who are able to stand up to the powerful coercion of corruption. This means empowering theses mandated bodies to better enforce their mandates, penalize corrupt officials, and enforce the relevant laws and regulations through an effective/efficient coordination platform for all concerned stakeholders.

C. Trends in the NCD Property Market

The property market in NCD experienced unprecedented growth during the construction phase of the PNG LNG project (2011-2014) and the preparation stages of the APEC meeting (2016-2018). The number of residential, commercial, and industrial properties increased significantly by 2018 and only declined gradually during the onslaught of the COVID-19 pandemic in 2019.

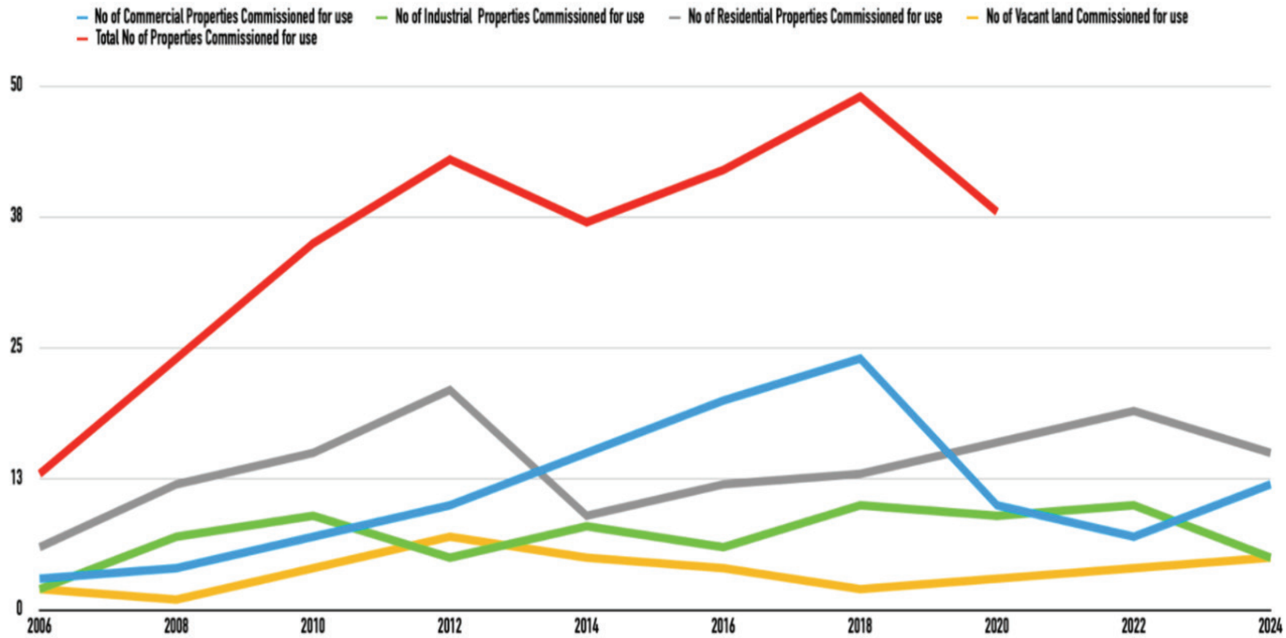
About 90% of these properties were developed merely on the assumption of demand without any substantive market surveys or demand analysis before their development. Thus 85% were not occupied as intended. Some are deemed wasted investments.

These have contributed to the exorbitant price hikes in the property market. In their efforts to recoup the construction costs and to make a marginal profit, about 92%

of property developers and owners charged very high prices. This has resulted in an increased number of vacancies as many potential tenants and buyers are unable to afford the asking prices. High prices are also contributed by the exhaustion of the State-owned land coveted by property developers that are pushing up land prices.

Sales and rental prices of commercial, industrial, residential, or combo-use properties have been increasing in recent years. The trend in number of commissioned industrial and residential properties saw a decline in 2022 as a result of a slowdown in construction during the COVID-19 period. Commissioning of commercial properties saw a significant rise in 2022. This was mainly bolstered by a high demand from the business sector which returned to normalcy after a marked slow-down during 2020-2021. Figure 1 show the recent trends in the NCD real estate property market.

Figure 1: Trends in the Real Property Market of NCD, 2006-2022



Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

The volatile behavior of the property market also indicates the risk sentiments of consumers. Many have expressed concern of the balloon which may burst anytime whilst others continue to construct in anticipation of the growing demand. As shown in Figure 1, the demand for all property types has been on the rise since 2006, peaked in 2012 and began to decline in 2014. This was associated with the LNG project. The demand side took another hike in 2018 at the height of the APEC Summit in PNG and declined in 2019 at the onslaught of the COVID-19 pandemic.

Overall, the sales and rental prices of commercial, industrial, residential properties remain high. The trend in the price of commissioned industrial and residential properties saw a decline in 2022 as a result of a slowdown in construction during the COVID-19 period. Prices of commissioned commercial properties saw a significant rise in 2022. This was mainly bolstered by a high demand and willingness to pay by the business sector which returned to normalcy after a marked slow-down during 2020-2021. Figure 1 show the recent trends in the price and demand for real property in the NCD market.

PART II: CURRENT SALES AND RENTAL RATES OF REAL PROPERTIES IN NCD

A. Current Sales Rates of (Residential, Commercial and Industrial) Real Properties in NCD

Current sales rates of residential, commercial, and industrial properties in NCD are exorbitantly high. While the time taken to complete the sales process may take from between 2 weeks to 2 months, the sales rates across all the 5 suburbs vary significantly. Table 1 outlines the current sales rates of real properties in NCD.

Table 1: Current Sales Rates of Residential, Commercial, and Industrial properties in the 5 Main Suburbs of NCD

	Matirogo	Boroko	Granville	Bomana	Hohola
RESIDENTIAL PROPERTIES					
Current Asking Sale Price (K'000)	850,000-1M	950,000-1M	1-2M	600,000-800,000	800,000-1M
Actual Sale/ Transacted Price (K'000)	850,000	950,000	1.8M	650,000	950,000
COMMERCIAL PROPERTIES					
Current Asking Sale Price (K'000)	8M-10M	10M-13M	15M-17M	6M-8M	11M-13M
Actual Sale/ Transacted Price (K'000)	9.5M	12.5M	16.5M	7.5M	12.5M
INDUSTRIAL PROPERTIES					
Current Asking Sale Price (K'000	6M-8M	10M-12M	8M-10M	4M-5M	8M-10M
Actual Sale/ Transacted Price (K'000)	7.5M	11.5M	9.5M	4 M	9.5M

Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023. Note: M=millions of Kina

Sales of residential properties (2 and 3-bedroom) are going at an average of K1,140,000 in NCD. By suburbs, residential properties selling at Granville are going at K2,000,000, at Boroko for K1,000,000, at Hohola for K1,000,000, at Bomana for K700,000, and at Matirogo for K1,000,000.

Sales of commercial properties (Retail Shops) are going at an average of K12,200,000 in NCD. By suburbs, commercial properties selling at Granville are going at K17,000,000, at Boroko for K13,000,000, at Hohola for K13,000,000, at Bomana for K8,000,000, and at Matirogo for K10,000,000. Sales of Office Spaces are going between the range of K5 million to K10 million, at Granville are going at K10,000,000, at Boroko for K10,000,000, at Hohola for K5,000,000, at Bomana for K3,000,000, and at Matirogo for K5,000,000.

Sales of industrial properties (distribution warehouse) are going at an average of K9,000,000 in NCD. By suburbs, industrial properties selling at Granville are going at K10,000,000, at Boroko for K12,000,000, at Hohola for K10,000,000, at Bomana for K5,000,000, and at Matirogo for K8,000,000.

B. Current Rental Rates of (Residential, Commercial and Industrial) Real Properties in NCD

Rental rates of residential, commercial, and industrial properties in NCD are exorbitantly high. While the time taken to complete the rental process may take from between days to a week, the rental rates across all the 5 suburbs vary significantly.

Table 2: Current Rental Rates of Residential, Commercial, and Industrial Properties in the 5 Main Suburbs of NCD

RESIDENTIAL PROPERTIES					
	Matirogo	Boroko	Granville	Bomana	Hohola
Current Asking Rental Price (K)/ week	1,500	1,500	2,500	1,200	1,200
Actual Rental/Transacted Rental Price (K)/week	1,200	1,427	2,400	1,000	1,000
COMMERCIAL PROPERTIES					
Current Asking Rental Price (K)/ month					
• Class A	120,000	150,000	200,000	11,000	150,000
• Class B	60,000	90,000	100,000	5,000	90,000
• Class C	5,000	10,000	15,000	3,000	15,000
Actual Rental/Transacted Price (K)/ month					
• Class A	67,500	120,000	190,000	90,000	110,000
• Class B	30,000	40,000	50,000	3,000	40,000
• Class C	3,000	5,000	10,000	1,500	5,000
INDUSTRIAL PROPERTIES					
Current Asking Sale Price (K)/ month	20,000	20,000	10,000	10,000	20,000
Actual Sale/Actual Transacted Price (K)/month	15,000	20,000	10,000	10,000	20,000

Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

Rental prices of residential properties (2 and 3-bedroom houses) are going at an average rate of K1,500 per week in NCD. By suburbs, residential properties renting at Granville are going at K2,500/week, at Boroko for K1,500/week, at Hohola for K1,300, at Bomana for K1,000, and at Matirogo for K1,200.

Rental prices of commercial properties (Retail/Shops) are going at an average of K120,250 monthly in NCD. By suburbs, commercial properties leased out at Granville are going at K200,000 per month, at Boroko for K150,000 at Hohola for K150,000, at Bomana for K100,000, and at Matirogo for K100,000 per month. Rental Prices of Office Spaces at Granville are going at K144,400 per month, at Boroko for K110,000 per month, at Hohola for K110,000 per month, at Bomana for K50,000, and at Matirogo for K60,000.

Rental rates of industrial properties are going at an average of K16,000 monthly in NCD. By suburbs, industrial properties renting/leasing at Granville are going at K10,000 per month, at Boroko for K20,000, at Hohola for K20,000, at Bomana for K10,000, and at Matirogo for K150,000 per month.

According to our survey, developing properties in these suburbs are due to the Directives from Others (33%), followed by the Assumption of Demand for such properties in that suburb (42%), Based on Target Group Survey (25%). Financing of these property developments was mainly through Joint Ventures (38%), Bank loans (31%), and Self-financing (23%). Other sources of finances include landowners' associations and individual contributions/ donations (8%).

The types of properties developed vary in land and building sizes. The different costs of development, sales and rentals are dependent on the land and building sizes and to some extent the location of the property. Property developers surveyed have indicated that the costs of the property were based on hear-say, own estimates, and not determined by any actual market surveys.

Main elements facilitating effective rental and sales rates in NCD are ideal location, easy access to socio-economic amenities, safety and security, and affordability. These elements determine the choices residents make when deciding where to reside. Figure 2 note that the demand for residential property far exceeds the others. Financing of most of the rentals are self-financed (46%), followed by employer finance (36%), and other sources of finances.

Figure 2: Rental Demand for Various Property Types in NCD (%)

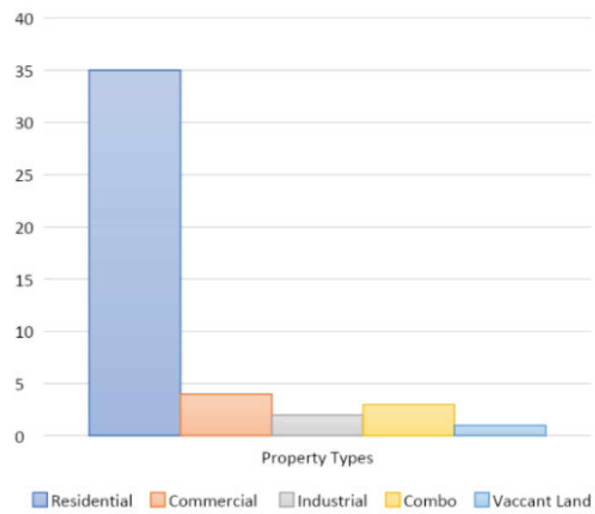
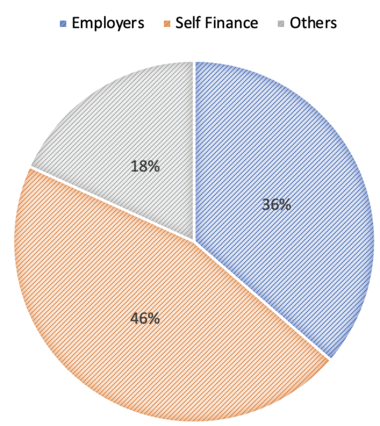


Figure 3: Main Sources of Rental Financing in NCD



Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

PART III: CAPITALIZATION RATES

A. Capitalization Rates and the Formula for Calculating it

Capitalization rate (or cap rate) is used in commercial real estate to indicate the rate of return that is expected to be generated on a real estate investment property. This measure is computed based on the net income that the property is expected to generate and is calculated by dividing net operating income by property asset value and is expressed as a percentage. It is used to estimate the investor's potential return on their investment in the real estate market.

While the cap rate can be useful for quickly comparing the relative value of similar real estate investments in the market, it should not be used as the sole indicator of an investment's strength because it does not take into account leverage, the time value of money, and future cash flows from property improvements, among other factors.

The cap rate is the most popular measure through which real estate investments are assessed for their profitability and return potential. The cap rate simply represents the yield of a property over a one-year time horizon assuming the property is purchased on cash and not on loan. The capitalization rate indicates the property's intrinsic, natural, and un-levered rate of return.

The most popular formula, the capitalization rate of a real estate investment is calculated by dividing the property's net operating income (NOI) by the current market value.

Mathematically, it can be expressed as *Capitalization Rate = Net Operating Income / Current Market Value*, where the net operating income is the (actual) annual income generated by the property (like rentals) and is arrived at by deducting all the expenses incurred for managing the property. These expenses include the cost paid towards the regular upkeep of the facility as well as the property taxes. The current market value of the asset is the present-day value of the property as per the prevailing market rates.

The second version is not very popular for 2 reasons. First, it gives unrealistic results for old properties that were purchased several years/decades ago at low prices, and second, it cannot be applied to the inherited property as their purchase price is zero, making the division impossible. In addition, since property prices fluctuate widely, the first version using the current market price is a more accurate representation as compared to the second one which uses the fixed value original purchase price.

Since cap rates are based on the projected estimates of the future income, they are subject to high variance. It then becomes important to understand what constitutes a good cap rate for an investment property. The rate also indicates the duration of time it will take to recover the invested amount in a property. For instance, a property having a cap rate of 10% will take around 10 years for recovering the investment.

Different cap rates among different properties, or different cap rates across different time horizons on the same property, represent different levels of risk. A look at the formula indicates that the cap rate value will be higher for properties that generate higher net operating income and have a lower valuation, and vice versa.

There are no clear ranges for a good or bad cap rate, and they largely depend on the context of the property and the market. Say, there are 2 properties that are similar in all attributes except for being geographically apart. One is in a posh city center area (down town Moresby) while the other is on the outskirts of the city, say Gerehu. All things being equal, the property in Town will generate a higher rental compared to the one in Gerehu, but those will be partially offset by the higher cost of maintenance and higher taxes required of the one down town. The city center property usually have a relatively lower cap rate compared to the Gerehu property owing to its significantly high market value.

It indicates that a lower value cap rate corresponds to better valuation and a better prospect of returns with a lower level of risk. On the other hand, a higher value of cap rate implies relatively lower prospects of return on property investment, and hence a higher level of risk. While the above example makes it an easy choice for an investor to go with the property in the city center, real-world scenarios may not be that straightforward. The investor assessing a property on the basis of the cap rate faces the challenging task to determine the suitable cap rate for a given level of risk.

Another representation of the cap rate comes from the Gordon Growth Model, which is also called the dividend discount model (DDM). It is a method for calculating the intrinsic value of a company's stock price independent of the current market conditions, and the stock value is calculated as the present value of a stock's future dividends. Mathematically, it can be expressed as *Stock Value = Expected Annual Dividend Cash Flow / (Investor's Required Rate of Return - Expected Dividend Growth Rate)*. Rearranging the equation and generalizing the formula beyond dividend, *(Required Rate of Return - Expected Growth Rate) = Expected Cash Flow / Asset Value*.

This representation matches the basic formula of the capitalization rate mentioned in above. The expected cash flow value represents the net operating income and the asset value matches the current market price of the property. This leads to the capitalization rate being equivalent to the difference between the required rate of return and the expected growth rate. That is, the cap rate is simply the required rate of return minus the growth rate.

This can be used to assess the valuation of a property for a given rate of return expected by the investor. For instance, say the net operating income of a property is K50,000, and it is expected to rise by 2% annually. If the investor's expected rate of return is 10% per annum, then the net cap rate will come to (10% - 2%) = 8%. Using it in the above formula, the asset valuation comes to (K50,000 / 8%) = K625,000.

Limitations of the Cap Rate. Although capitalization rate can be a useful metric for properties that provide stable income, it is less reliable if a property has irregular or inconsistent cash flows. In these circumstances, a discounted cash flow model might be a better way to measure the returns from an investment property.

The capitalization rate is only useful to the extent that a property's income will remain stable over the long term. It does not take into account future risks, such as depreciation, or structural changes in the rental market that could cause income fluctuations. Investors should take these risks into account when relying on cap rate calculations.

What Is a Good Cap Rate? There is no single value for what makes an "ideal" capitalization rate, and investors should consider their own risk appetites when evaluating a property. Generally, a high capitalization rate will indicate a higher level of risk, while a lower capitalization rate indicates a lower risk but high value.

That said, many analysts consider a "good" cap rate to be around 5% to 10%, while a 4% cap rate indicates lower risk but a longer timeline to recoup an investment. There are also other factors to consider, like the features of a local property market, and it is important not to rely on cap rate or any other single metric.

What Affects the Cap Rate? There are many potential market factors that can affect the capitalization rate of a property. As with other rental properties, location plays a major factor in determining the returns of commercial properties, with high-traffic areas likely to come with a higher capitalization rate.

It is also important to consider other features of the local market, such as competing properties. Generally, properties in a large, well-developed market will tend to have lower capitalization rates, due to competitive pressures from other businesses. Future trends, such as local market growth, can also affect the long-term capitalization rate for a property. Finally, the amount of capital invested in a property can also affect the cap rate. A renovation that makes a property more attractive could command higher rents, increasing the owner's operating income.

Examples of the Capitalization Rate. Assume that Bobby has K1 million and he is considering investing in one of the 2 available investment options: one, he can invest in government-issued (BPNG) Treasury bonds/bills that offer a nominal 3% annual interest and are considered the safest investments, or two, he can purchase a commercial building at the Waterfront that has multiple tenants who are expected to pay regular rent.

In the second case, assume that the total rent received per year is K90,000 and the investor needs to pay a total of K20,000 towards various maintenance costs and property taxes. It leaves the net income from the property investment at K70,000. Assume that during the first year, the property value remains steady at the original buy price of K1 million.

The capitalization rate will be computed as (Net Operating Income/Property Value) = K70,000/K1 million = 7%. This return of 7% generated from the property investment fares better than the standard return of 3% available from the risk-free Treasury bonds. The extra 4% represents the return for the risk taken by the investor by investing in the property market as against investing in the safest Treasury bonds which come with zero risk.

Capitalization Rate on Property. Property investment is risky, and there can be several scenarios where the return, as represented by the capitalization rate measure, can vary widely. For instance, a few of the tenants may move out and the rental income from the property may diminish to K40,000. Reducing the K20,000 towards various maintenance costs and property taxes, and assuming that property value stays at K1 million, the capitalization rate comes to (K20,000 / K1 million) = 2%. This value is less than the return available from risk-free bonds.

In another scenario, assume that the rental income stays at the original K90,000, but the maintenance cost and/or the property tax increases significantly, to say K50,000. The capitalization rate will then be (K40,000/K1 million) = 4%. Pay attention to rates. In general, cap rates increase when interest rates go up.

In another case, if the current market value of the property itself diminishes, to say K800,000, with the rental income and various costs remaining the same, the capitalization rate will increase to K70,000/K800,000 = 8.75%. In essence, varying levels of income that get generated from the property, expenses related to the property, and the current market valuation of the property can significantly change the capitalization rate.

The surplus return, which is theoretically available to property investors over and above the Treasury bond investments, can be attributed to the associated risks that lead to the above-mentioned scenarios. The risk factors include:

- Age, location, and status of the property
- Property type: multifamily, office, industrial, retail, or recreational
- Tenants' solvency and regular receipts of rentals
- Term and structure of tenant lease(s)
- The overall market rate of the property and the factors affecting its valuation
- Macroeconomic fundamentals of the country as well as factors impacting tenants' businesses

What Should My Capitalization Rate Be? The capitalization rate for an investment property should be between 4% and 10%. The exact number will depend on the location of the property as well as the rate of return required to make the investment worthwhile.

Is a Higher or Lower Capitalization Rate Better? Generally, the capitalization rate can be viewed as a measure of risk. So determining whether a higher or lower cap rate is better will depend on the investor and their risk profile. A higher cap rate means that the investment holds more risk whereas a low cap risk means an investment holds less risk.

What Is the Difference Between the Capitalization Rate and Return on Investment?

Return on investment indicates what the potential return of an investment could be over a specific time horizon. The capitalization rate will tell you what the return of an investment is currently or what it should actually be.

In sums, the capitalization rate is used to measure the profitability of commercial rental properties. There are also other factors to consider, such as risk and local market dynamics. Investors should be careful to consider a wide range of metrics in addition to the capitalization rate.

Table 3: Capitalization Rates of 2 and 3 bedrooms fully furnished high-set residential houses across the main suburbs and sub-suburbs of NCD

Major Suburb	Sub - Suburb	Building Type	Building Features	Rental/ Wk	Annual Income	Expense	Net Income	Sale Price	Cap Rate	Average %
RESIDENTIAL										
	Town	Fully Furnished Standalone Highset	3BR x 1BA	2,500	130,000	13,000	117,000	1.3M	9	
Granville	Koki	Fully Furnished Standalone Highset	3BR x 1BA	1,500	78,000	7800	70,200	700,000	10	10%
	Konedobu	Fully Furnished Standalone Highset	3BR x 1BA	2,000	104,000	10,400	93,600	850,000	11	
	Boroko	Fully furnished Standalone Highset	3BR x 1BA	1250	65,000	6500	58,500	700,000	8	
Bomana	Boroko	Fully furnished Standalone Highset	3BR x 1BA	1250	65,000	6500	58,500	650,000	9	13%
	9-mile	Fully furnished Standalone Highset	3BR x 1BA	1250	65,000	6500	58,500	487,750	12	
	2-Mile	Fully Furnished Standalone Highset	3BR x 1BA	K2,000	104,000	10,400	93,600	800,000	12	
(Gabutu) Matirogo	Badili	Standalone Highset	3BR x 1BA	K2,000	104,000	10,400	93,600	800,000	12	12%
	Sabama	Fully Furnished Standalone Highset	3BR x 1BA	K1,000	52,000	5,200	46,800	400,000	12	
	Kaugere	Fully Furnished Standalone Highset	3BR x 1BA	K1,000	52,000	2,600	49,400	400,000	12	
	Boroko	Fully Furnished Standalone Highset	3BR x 1BA	1,400	72800	7280	65520	800,000	8	
	Korobosea	Fully Furnished Standalone Highset	3BR x 1BA	1,400	72800	7280	65520	700,000	9	
Boroko	3-Mile	Fully Furnished Standalone Highset	3BR x 1BA	1,500	78000	7800	70200	800,000	9	10%
	5-mile	Fully Furnished Standalone Highset	3BR x 1BA	1,400	72800	7280	65520	600,000	11	
	6mile	Fully Furnished Standalone Highset	3BR x 1BA	1,400	72800	7280	65520	550,000	12	
	7-mile	Fully Furnished Standalone Highset	3BR x 1BA	1,400	72800	7280	65520	500,000	13	

Major Suburb	Sub - Suburb	Building Type	Building Features	Rental/ Wk	Annual Income	Expense	Net Income	Sale Price	Cap Rate	Average %
Hohola	Gordons	Fully Furnished Standalone Highset	3BR x 1BA	1,300	67600	6760	60840	660,000	9	9%
	Hohola	Fully Furnished Standalone Highset	3BR x 1BA	1,300	67600	6760	60840	780,000	8	
	Erima	Fully Furnished Standalone Highset	3BR x 1BA	1000	52000	5200	46800	550,000	9	
	Morata	Fully Furnished Standalone Highset	3BR x 1BA	500	26000	2600	23400	200,000	12	
	Gerehu	Fully Furnished Standalone Highset	3BR x 1BA	950	49400	4940	44460	500,000	9	
	NCC	Fully Furnished Standalone Highset	3BR x 1BA	1200	62400	6240	56160	600,000	9	
	North Waigani	Fully Furnished Standalone Highset	3BR x 1BA	1500	78000	7800	70200	780,000	9	
	Waigani	Fully Furnished Standalone Highset	3BR x 1BA	1500	78000	7800	70200	780,000	9	
	Tokarara	Fully Furnished Standalone Highset	3BR x 1BA	1200	62400	6240	56160	600,000	9	
	June Valley	Fully Furnished Standalone Highset	3BR x 1BA	1200	62400	6240	56160	600,000	9	
	4-mile	Fully Furnished Standalone Highset	3BR x 1BA	1300	67600	6760	60840	780,000	9	
	Garden Hills	Fully Furnished Standalone Highset	3BR x 1BA	1200	62400	6240	56160	600,000	9	

Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

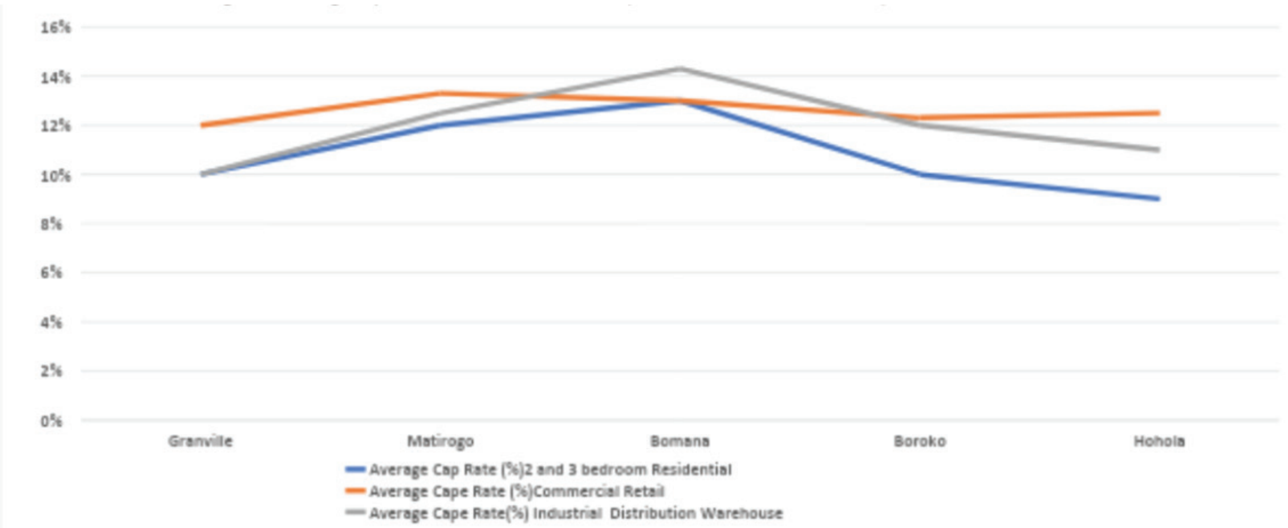
Cap rates of residential, commercial, and industrial properties vary widely across the 5 suburbs of NCD. These rates are exorbitantly high. While the time taken to complete the sales process may take from between 4 weeks to 6 months, the sales rates across all the 5 suburbs vary significantly.

Cap rates of residential properties are going at an average of 11.5% in NCD. By suburbs, using average cap rate of 11.5%, residential properties selling at Granville are going at K1,130,500, at Boroko for K678,300, at Hohola for K587,900, at Bomana for K452,200, and at Matirogo for K542,700.

Cap rates of commercial properties (retails)are going at an average percentage of 12.5% in NCD. By suburbs, using the average cap rate of 12.5(%), commercial retail selling at Granville are going at K19,200,000, at Boroko for K14,400,000, at Hohola for K14,400,000, at Bomana for K9,600,000, and at Matirogo for K8,640,000. Cap rates of Office Spaces at Granville are going at 10% to 12 %, at Boroko for 10% to 12%, at Hohola for 12% to 13%, at Bomana for 13% to 15%, and at Matirogo for 13% to 15%. Using the average cap rate, office spaces are selling at Granville are going at K20,000,000 to K50,000,000, office spaces at Boroko are selling at K20,000,000 to K50,000,000, office spaces at Hohola are going at K20,000,000 to K50,000,000, office spaces at Bomana are selling K10,000,000 to K15,000,000 and office spaces at Matirogo are selling at K10,000,000 to K20,000,000.

Cap rates of industrial (distribution warehouse) properties are going at an average percentage of 12 (%) in NCD. By suburbs, the industrial distribution warehouse selling at Granville are going at K2,000,000, at Boroko for K2,000,000 at Hohola for K2,000,000, Bomana for K1,000,000 and at Matirogo for K1,500,000.

Figure 4: Average Capitalization Rates of Residential, Commercial and Industrial Properties in the main 5 suburbs of NCD



Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

Table 4: Capitalization Rates of Commercial Retail Shops across the main suburbs and sub-suburbs of NCD

Major Suburb	Sub - Suburb	Building Type	Rental/ Month	Annual Income	Expense	Total Expenses	Net Income	Sale Price	Cap Rate	Average Cap Rate %
					COMMERCIAL					
Bomana	7-mile	Retail Shops	100,000	1,200,000	20%	240,000	960,000	8,500,000	11	13%
	8-mile	Retail Shops	110,000	1,320,000	20%	264,000	1,056,000	8,000,000	13	
	9-mile	Retail Shops	70,000	840,000	20%	168,000	672,000	4,500,000	14	
Granville	Town	Retail Shops	200,000	2,400,000	20%	480,000	1,920,000	17,000,000	11	12.5%
	Ela Beach	Retail Shops	200,000	2,400,000	20%	480,000	1,920,000	16,000,000	12	
	Koki Market	Retail Shops	150,000	1,800,000	20%	360,000	1,440,000	10,700,000	12	
	Konedobu	Retail Shops	100,000	1,200,000	20%	240,000	960,000	6,500,000	13	

Major Suburb	Sub - Suburb	Building Type	Rental/ Month	Annual Income	Expense	Total Expenses	Net Income	Sale Price	Cap Rate	Average Cap Rate %
Hohola	Gordons	Large Retail Shop Units	150,000	1,800,000	20%	360,000	1,440,000	12,000,000	11	12.4%
	Hohola	Large Retail Shop	150,000	1,800,000	20%	360,000	1,440,000	11,000,000	13	
	Erima	Large retail shop units	100,000	1,200,000	20%	240,000	960,000	8,000,000	12	
	Morata	Large retail shop units	10,000	120,000	10%	12,000	108,000	600,000	18	
	Gerehu	Large retail shop units	100,000	1,200,000	20%	240,000	960,000	7,000,000	14	
	NCC	Large retail shop units	50,000	600,000	10%	60,000	540,000	3,500,000	15	
	North Waigani	Large Retail Shop Units	150,000	1,800,000	20%	360,000	1,440,000	12,000,000	12	
	Waigani	Large Retail Shop	150,000	1,800,000	20%	360,000	1,440,000	11,000,000	13	
	Tokarara	Large retail shop units	100,000	1,200,000	20%	240,000	960,000	6,500,000	15	
	June Valley	Large retail shop units	40,000	480,000	10%	48,000	432,000	3,000,000	14	
	4-mile	Large retail shop units	100,000	1,200,000	20%	240,000	960,000	8,000,000	12	
	Garden Hills	Large retail shop units	40,000	480,000	10%	48,000	432,000	3,000,000	14	
Matirogo	2-mile	Retail Shops	120,000	1,440,000	20%	288,000	1,152,000	10,000,000	12	13.3%
	Badili	Retail Shops	110,000	1,320,000	20%	264,000	1,056,000	9,000,000	12	
	Kaugere	Retail Shops	20,000	240,000	10%	24,000	216,000	1,600,000	14	
	Sabama	Retail Shops	20,000	240,000	10%	24,000	216,000	1,600,000	14	
Boroko	Boroko	Retail Shops	150,000	1,800,000	20%	360,000	1,440,000	12,000,000	12	12.5%
	Korobosea	Retail Shops	140,000	1,680,000	20%	336,000	1,344,000	10,000,000	12	
	3-Mile	Retail Shops	140,000	1,680,000	20%	336,000	1,344,000	10,500,000	12.4	
	5-Mile	Retail Shops	110,000	1,320,000	20%	264,000	1,056,000	7,000,000	13	
	6-mile	Retail Shops	90,000	1,080,000	20%	216,000	864,000	6,000,000	13	
	7-mile	Retail Shops	90,000	1,080,000	20%	216,000	864,000	6,000,000	13	

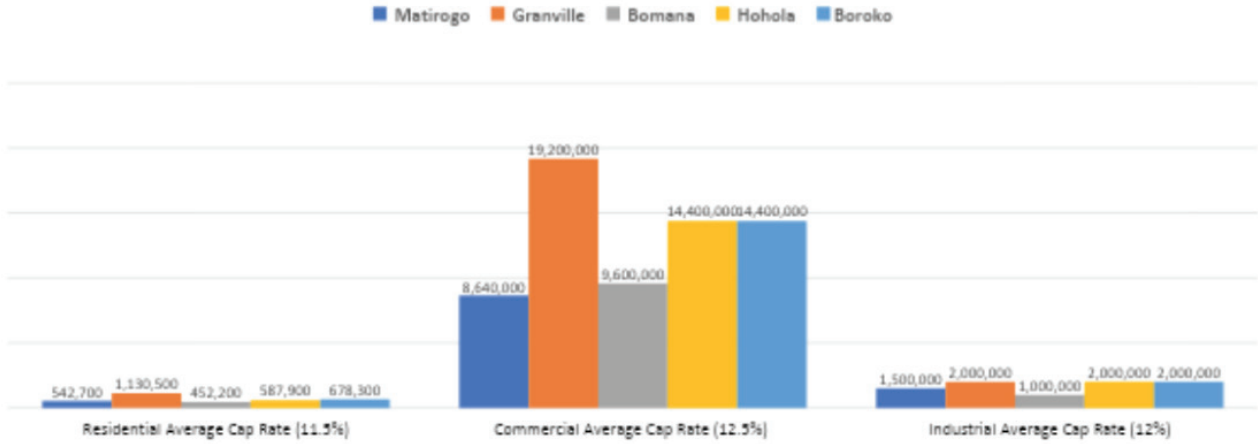
Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

Table 5: Capitalization Rates of Industrial Properties (Storage/Distribution Warehouses) across the main suburbs and sub-suburbs of NCD

Major Suburb	Sub - Suburb	Building Type	Rental/ Week (K'000)	Annual Income	Expense (20%)	Net Income	Sale Price (K'000)	Cap Rate	Average Cap Rate %
INDUSTRIAL									
Boroko	Boroko	Distribution Warehouse	5000	1,040,000	208,000,000	832,000	15,000,000	9	12%
	6-mile	Distribution Warehouse	5000	1,040,000	208,000,000	832,000	6,000,000	13	
	7-mile	Distribution Warehouse	5000	1,040,000	208,000,000	832,000	5,500,000	14	
Hohola	Gordons	Distribution Warehouse	5000	1,040,000	208,000	832,000	10M	8	11%
	Hohola	Distribution Warehouse	5000	1,040,000	208,000	832,000	9M	10	
	Gerehu stage 6	Distribution Warehouse	5000	1,040,000	208,000	832,000	2M	14	
	North Waigani	Distribution Warehouse	5000	1,040,000	208,000	832,000	8M	10	
	Waigani	Distribution Warehouse	5000	1,040,000	208,000	832,000	7M	12	
	4-mile	Distribution Warehouse	5000	1,040,000	208,000	832,000	7M	12	
Maitrogo	2-Mile	Distribution Warehouse	5000	1,040,000	208,000,000	832,000	9M	13	12.5%
	Badili	Distribution Warehouse	5000	1,040,000	208,000,000	832,000	11M	12	
Granville	Town	Distribution Warehouse	2500	130,000	13,000	117,000	1.2m	9	10%
	Konedobu	Distribution Warehouse	2000	104,000	10,400	93,600	800,000	11	
	Koki	Distribution Warehouse	1500	78,000	7800	70,200	700,000	10	
Bomana	7-Mile	Distribution Warehouse	10000	520,000	104,000	416,000	5M	13	14.3%
	8-mile	Distribution Warehouse	10000	520,000	104,000	416,000	4M	14	
	9-mile	Distribution Warehouse	10000	520,000	104,000	416,000	3M	14	

Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

Figure 5: Average Capitalization Rates and Selling Price of Residential, Commercial and Industrial Properties across the main 5 suburbs of NCD



Data Source: CJ Valuers Ltd Survey of the Property Market in NCD, March 2023

Capitalization rates of residential properties of the 5 suburbs of NCD average at 11.5%. For commercial and Industrial properties the average cap rate is at 12%. Figure 5 shows a general working figure average of the Cap Rates for residential, commercial, and industrial properties and their selling price across the 5 main suburbs on NCD.

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PART IV: CONCLUDING OBSERVATIONS

This is a preliminary and first of its kind survey conducted mainly to determine a "working range figure" of the capitalization rates in the 5 suburbs of NCD. It is hoped that subsequent work will build on this initial work and improve in determining a more precise "working figure" for the valuation industry to refer to when determining the values of relevant properties in NCD.

Based on the key findings of the survey and the issues deliberated in this report, the following observations can be deduced:

i. Current sales and rental rates of residential, commercial, and industrial properties vary significantly in NCD. These prices are on the high side.

ii. The variance is correlated with the location, access to socio-economic services, and affordability of the purchaser or the lessee.

iii. The sales and rental prices are influenced by the capitalization rates of the different property types. The wide variance in the capitalization rates of residential, commercial, and industrial properties across NCD is correlated with the level of risks, market competition, demand level and supply shortage.

iv. The survey results show that other key factors which influence the behavior of capitalization rates such as location, high rentals, asset classes/Investment property type, and economic condition have limited bearing on the capitalization rates of residential, commercial, and industrial properties across NCD.

v. Overall, based on the findings of this survey, it is established that for purposes of determining the value for the sales and rentals/lease of residential, commercial, and industrial properties across the 5 suburbs of NCD, a working figure to use for the capitalization rates are for:

vi. Leasing residential properties at Granville are going at K2,500/week, at Boroko for K1,500/week, at Hohola for K1,300/week, at Bomana for K1000/week, and at Matirogo for K1,200. Capitalization rates for selling residential properties at Granville are going at K1,300,000, at Boroko for K728,000, at Hohola for K751,000, at Bomana for K500,000 to K700,000, and at Matirogo for K520,000.

- Leasing commercial (retail) properties at Granville are going at K200,000/month, at Boroko for K150,000/ month, at Hohola for K150,000/month, at Bomana for K100,000/month, and at Matirogo for K90,000. Capitalization rates for selling commercial properties at Granville are going at K19,200,000, at Boroko for K14,400,000, at Hohola for K14,400,000, at Bomana for K9,600,000 and at Matirogo for K8,640,000.

- Leasing industrial properties at Granville are going at K20,000/month, at Boroko for K20,000/month, at Hohola for K20,000/month, at Bomana for K10,000/month, and at Matirogo for K15,000/month. Capitalization rates for selling industrial properties at Granville are going at K2, 400,000, at Boroko for K2,000,000, at Hohola for K2,000,000 at Bomana for K100,000, and at Matirogo for K1,500,000.

The survey identifies the key property market indicators of NCD. These indicators guided the type of data to collect and how the analysis of the data was done. Indicators were set according to the SMART criteria: Specific to the objective; Measurable quantitatively/ qualitatively; Available and accessible; Relevant for our information/data requirements; and Time-bound for the relevance and reliability of the data.

The survey forms the basis for monitoring and evaluating the growth and development of the property market of NCD. It aims to help planners, stakeholders, real estate firms, agents, etc; to set March 2023 as the baseline to compare or measure the progress of the property market of NCD in the medium term.

Findings of the survey provides insights to the current market trends, demand and supply, and latest and most reliable information. It is useful for property developers, owners, lesser, lessees and realtors to better understand these dynamics and to help guide them to appropriately price their properties in a sale, a lease or a mortgage.

CJ Valuers Ltd is among a very few if not the only Valuation firm in PNG that boasts of hosting a comprehensive database of the various property types of NCD and PNG. This database was developed and is updated on a regular basis, and is used for the valuation of properties in NCD and across PNG. The data obtained in this survey will also contribute to updating the in-house database of CJ Valuers Ltd.

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Our Services have evolved beyond providing ordinary valuation services to now providing cutting-edge valuation services in the valuation of properties, plant equipment and machineries, businesses/companies, stocks/securities, and compensation. In addition to this wide range of Valuation Services, CJ Valuers Ltd has been providing tailor-designed technical training, and offering consultancy services on policy advisory, feasibility/market survey studies, research and thematic assessments.

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