Analytics Reflection from the Perspectives of an Office REIT Manager

# Introduction

I work for a Manager of an office REIT for the last 6 years. A small team of 8 people manages an office REIT listed in HK Stock Exchange (1426.HK) with a market capitalization of c.USD500 mn. The asset base is predominately two office buildings in Beijing (aside from investment in UK, accounts for only c.7% of the asset).

Currently analytics is not playing a crucial role in my company, mainly for reporting and contribute little to risk management and yield no insights to improve operational performance. While the DELTA Framework characterized the overall assessment to be that of localized analytics, a critical look at the overall operations could easily fall to the impaired category.

# Information Value Chain Analysis

The Manager of the office REIT (the “Manager”) was set up to make sure the REIT make stable dividend payment to its investors for the long term.

To achieve this goal, I see analytics being useful to at least two aspects of the operations, leasing management and risk management.

## Leasing management

I shall begin with leasing management. Beijing office leasing market is kind to its landlords. Until recently, no new supply had come to the market since 2008-9, when a glut of supply hit the market before the 2008 Summer Olympic Games. Demand was strong as Beijing was not only the center of political power in a highly centralized regime, it is also the undisputed center of higher education. The talent pool and easier reach to various levels of governments made it attractive to domestic and foreign tenants alike.

This cozy market is turning though. Central planners in Beijing had rezoned a central location 6 years ago and the current development plans would enlarge the total stock of prime offices by c.25% in the next 2-3 years. Sino-American Trade war and COVID-19 had put pressure on demand.

The leases in office buildings usually last 3 years that means on average one third of the office tenants will be negotiating with their landlords on leasing terms. Such negotiations rarely drag on for more than 6 months. For the assets of the REIT, that means approximately 60 out of the 180 tenants would renegotiate in a given year, however early terminations would mean a busy schedule for the leasing team all year round.

Four areas stands out: 1) sourcing new tenants; 2) assessment of new tenants (credit and future expansion); 3) monitoring of early terminations and 4) reporting and investor relationship.

For the sourcing new tenants, if an existing quality tenants (renewed / expanded) is known in the database to have affiliated companies, targeted marketing campaign can be launched to attract these quality tenants to the buildings. Yet our company now do not have the resources to establish such a database. A feasible solution would be to reach out to an industry association and join an information exchange program, while being mindful of the data privacy issues.

For the new tenant due diligence, currently a formal process of interview and comment were put in place after the IPO process back in 2013. However, the result of the interview as well as the related documents submitted to the leasing team (such as financials, previous office locations, etc.) were promptly filed away without being put into searchable data formats, cannot be further analyzed. Thus if the conclusions reached after the interview were later invalidated, such as tenant early terminated, behaving radically (e.g. staff smoking in corridors, or harass other tenants), accumulate late rental payments, the management would have no analytical insights into how to improve the interview / negotiation process to reduce such hassles.

For the early terminated tenants, sometimes they would simply disappear and become unreachable. It would then fall onto the landlord to reinstate the leased premise at the landlord’s own cost. So a timely discovery of strange activity would be helpful to reduce the cost. Earlier discovery can also kick start the marketing process for the now vacated premise. Yet property manager’s incident report were only made available to the management on a weekly basis, where such issues really should be updated in real time. Combining this concern with the abovementioned new tenant filtering process, further analytics would no doubt be helpful in narrowing down the common traits to avoid.

The reporting and investor relationship part is well covered. All commercial terms of the lease were input to a database system for real estate industry in Japan, called at-property. After the updates (to reflect new and amended terms), I am currently downloading all the data since project inception into an excel file, then ran a Python script (I developed to deal with data issues after a tax reform in China), to convert it into a rent roll, where a snapshot of all the active lease on a certain date was taken, then the occupancy and weighted average passing rent can be reported. Other data generated in the process include the weighted average rent of new leases, expired / terminated leases, and renewal leases. Reporting such data to the investors are important for transparency as well as a good support for the value of the publicly traded stock. Yet even this part had its future challenges, the data not managed internally, if the Japanese company change or terminate the service, painful data migration would ensue and previously tested Python script would need to be maintained. Also the Chinese and English interfaces of the Japanese system are sometimes indecipherable, luckily PM team had Japanese speaker, and Hong Kong side had people who can maintain such data conversion code. But what if personnel changes robs the company of these skills? In the long-term, I would still advocate for a single source of truth maintained in-house by the Manager, and build interface for PM team in Beijing to input and review data.

## Risk Management

The top two risk factor as concluded by the Board of the Manager is that of exchange rate risk and interest rate risk. The company had so far employed derivatives to hedge these risks. However I would argue for a more holistic approach where the impacts and probabilities of risky events needs to be quantified and hedge coverage ratio should be dynamics generated by the risk tolerance of investors (which should be quantified as well).

**Exchange risk**. The REIT had its main asset in Beijing, so its asset and income are denominated in Renminbi (RMB), legal tender of the People’s Republic of China. However, the holding of these assets are primarily by USD denominated term loans with floating rate. The overall gearing ratio is approximately 35.5% (FY2019 annual report) as calculated from total interest bearing liability over total assets. After RMB revenue were repatriated to Hong Kong in USD, the REIT serviced its debt and pays its investors in Hong Kong Dollar, a currency narrowly pegged to the USD. This set up was very common at the time of the REIT’s IPO. RMB was projected to appreciate against USD to eventually balance the trade deficits between the two countries. Since 2005, China’s currency had appreciated 33% against the U.S. dollar. So gearing ratio was expected to go down and interest cost from USD was much cheaper than that from RMB. However this combination had inherent contradictions. Based on interest rate parity, the future exchange rate of RMB was actually going to depreciate because it carries a higher risk-free rate. The only thing that is holding off the depreciation, in retrospect, had been the capital control of China. And that control is coming down in a bid by Beijing to internationalize the RMB. On August 11, 2015, the People's Bank of China (PBOC) surprised markets with three consecutive devaluations of the RMB, knocking over 3% off its value. The sensitivity I ran at the time indicated that 1% depreciation of RMB would result in 1.4% fall of distributable income to investors. Moreover, a drastic decline of RMB would also mean a violation of Loan-To-Value (LTV) covenant in the USD term loan agreement. In fact, the term loan negotiated back in 2013 is so cavalier about this risk, it even stipulated that the borrower would need to hedge the whole of the principal if 1USD=6.75RMB level were breached consistently for a certain period of time. Yet this is unattainable if the futures market as well as option market already priced in the large uncertainty and worse to come. In the end, the borrower had hedged the whole principle with out-of-money option (two standard deviation away) at a staggering cost of 1.8%, and amended the loan document (which required majority consent, in turn means buyout of non-consenting members of the loan syndicate). The process was painful and the Board made exchange rate risk a top factor in each of the ensuring discussions over the next 5 years.

**Interest Rate Risk**. The abovementioned financing is a floating rate loan. So far the holding structure benefited from having a US Dollar loan with LIBOR bases, as the similar benchmark in mainland China is much higher. This set up have its downsides. Since the interest cycle in the US is not perfectly coincided with that of Chinese economic cycles. It worked to the company’s benefit when US economy needs boosting and Chinese economic growth is unstoppable, therefore low interest rates coupled with growing levels of rent. This can work in reverse though. When the US is trying to rein in the excess liquidity, and China slows down, profit got squeezed. However, since the gearing level of the company is relatively low (only around 30% now), it is not that major a factor. However, as interest expense shows up in the P&L and year-on-year comparison looks glaring when everything else is stable, investors questions tend to concentrate on this. Also because of the effective interest rate accounting method, this usually takes longer to explain to investors.

Rounds of investor questioning had led to management to treat this as a major risk. A rule of thumb was proposed to hedge one-third of the floating rate exposure with interest rate swaps. After conducting such hedging, the company starts to pay the hedging provider over US$ 2 million over the years for the swap. As far as I can recall there is only one time a spike of LIBOR rates resulted in a marginal payout from the swap contracts. Though one can argue with one-third of the exposure covered that left two-third to benefit from a lower interest rate. After COVID-19, the federal reserve of US had quickly lowered the benchmark rate to zero and LIBOR soon fell. The management got authorization from the board to cover 100% of the floating rate exposure. When the 5 year swap rate hit 0.5%, the management thought it couldn’t go any lower, and entered swaps. The swap rate continued to go lower. Future LIBOR implied from the yield curve indicated that it could go to sub-0.3% by second half of this year, but with all exposures hedged, the company will not be able to benefit.

For both the exchange rate risk and interest rate risk, I wouldn’t argue for data analysis per se, as they were heavily influenced by regime change and external shocks, the past only provide vague allure of certainty. What I do argue is for the company to adopt a more analytical approach to these risk factors. We should instead analyze the investors, and see what their main concerns are. Dividend distribution and gearing ratio can be used to quantify these concerns, then we can work backwards and see the tolerable level of risk to investors. Then we can give up the arbitrary rule-of-thumb way of hedging them and dynamically adjust the exposure to these risks.

# Assessment DELTA Framework

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| --- | --- | --- | --- | --- | --- | --- |
|  |  | Capabilities | | | | |
|  |  | Data | Enterprise | Leadership | Targets | Analysts |
| 5 | Competitors |  |  |  |  |  |
| 4 | Companies |  |  |  |  |  |
| 3 | Aspirations |  |  |  |  |  |
| 2 | Localized | 2 | 2 |  | 2 |  |
| 1 | Impaired |  |  | 1 |  | 1 |
|  | Total | 8/5 = 1.6 (Stage2: “Localized Analytics”) | | | | |