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Risk Management of Small Real Estate Management Firms

The Study of Residential Real Estate Market in Zurich, Switzerland

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Abstract

Real estate is believed to have oscillational patterns and lags from business fluctuation. Leading indicators and certain lags of each cycle enable some degree of forecasting possibility but in the same time increase risk of irrational expectation among real estate companies. Not only the risks from fluctuation and expectation, but also risks from business operation and services should be considered in their risk management. Real estate management company may have different types and degree of risk compared to individual investors. The management of risk of this business operation is also different between sizes of firms, scope of services, geographical location, etc. We hereby examined the risk management of small real estate management companies, operating and servicing in residential property market within Zurich, Switzerland. These specific investment and geographical areas are distinctive in terms of risk exposure and solutions as they have continuously strong demand, various attractive features and distinctive behaviors. Unlike a real estate investor, the real estate development company emerging within these compelling economic attributes is believed to have very low risk. After the semi-structured interview with some executive representatives of these small firms, the results have revealed high level of risk awareness and actively participation to mitigate all possible risks, notwithstanding low level. Even without a person who is specifically responsible for risk management, risk assessment and evaluation have been done exclusively by their executives facilitated by personal contacts and associated institutions.

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1. Introduction

1.1 Background

Business and real estate activities are widely accepted to have oscillational patterns of cycles driven by anticipated shocks and expectations. Determined by asset durability, delivery lags and elasticities, the patterns of under- and overbuilding are common in real estate markets. Each phase of a single real estate cycle can be defined from related indicators, such as rental price, vacancy rate, construction rate, housing stock, etc. Since there are certain lags between business and real estate cycles, some patterns of cycles could be predicted. However, the asymmetrical information of principle-agent relationship, which makes prediction challenging, is commonly found in this sector while most of the transactions are private. Potential opportunities from the possible foresight and asymmetrical information together can lure investors into irrationality which is by no mean a secured approach.

Because the believed expectations and behaviors affect on and response to the movements of real estate cycles, fluctuation of any cycle indicators will expose more risks and make the related decision-making processes more sensitive. Even many decision models have tried to capture the potential risks and project the possible results to the decision makers, none of them can solely and perfectly do so. Property investors still need to make their decisions theoretically and pragmatically. The degree of sensitivity to risks, assessments and reactions due to those risks are focused in this paper as they can considered differently from a broad spectrum of risk management strategies.

Analyzing the Swiss market and focusing on the small real estate companies which are very flexible and can act efficiently in different situations compared to the bigger ones. Speed of reactions with distinctive strategies may be key to their success. Moreover as the leading indicators and risk management can be different from market to market, the cases of the small property management companies of Zurich real estate market are examined here. There are unique characteristics of low fluctuation due to exogenous oscillations, strong stable growth, intense competition and plentiful offerings from insurers.

1.2 Purpose of study

The main purpose of this study is to investigate the strategies of real estate companies to handle risks, for example due to real estate cycles. In the area of risk management, the decision maker needs to recognize, assess and respond to risks for less losses and higher gain than what the results are tending to. The study of decision-making strategies in small real estate firms, which are believed to be more human-alike as proposed in Gallimore, Hansz and Gray (2000) may reveal the clearer pictures of expectations and behaviors according to the changes of situations. Besides the cycles may affect those firms differently compared to large or international firms as most of the small firms consider more on microeconomics and private information.

The fluctuation in macroeconomics affects differently in each city around the world from their local conditions. Real estate market in Zurich, Switzerland has wide range of products offering to consumers and investors from the variety of locational attributes in one city. Plentiful of choices are available from lake side, old town, mountainous or countryside with diverse styles and prices. The results of this research paper can be considered as case studies of real estate firms located and managing mostly within this unique area. The decisions from those firms may have some common strategies as well as some very distinctive ones.

1.3 Research questions and methodology

We would like to investigate the potential risks of Zurich residential real estate market and how effectively the focused firms are recognizing and managing them. In addition, risk from real estate cycles and leading indicators of this market are examined. Another question on evidences of small firms' advantageous properties is analyzed also.

The first part of this paper is conducted by review of academic literatures focusing on cyclical movements, leading indicators, behavior studies and risk management. The second part will introduce Swiss and Zurich real estate markets, while the last part examines the risk management by semi-structured interviews of small real estate management firms. The analysis and arguments in this study are formulated by the review of academic literatures, statistical data and discussions of risk-related decisions.

2. Literature Review

There are three areas of studies included here: real estate cycles, behaviors of small firms and risk management. The studies of cycles and leading indicators are introduced to explain (1) their potential impact to real estate market, (2) stakeholders' reactions due to this impact and (3) risks embedded in the interaction between the impact and the reactions. The behavioral studies of small firms will emphasize more on the distinctive characteristics, expectations and behaviors found in small real estate firms with comparisons to the bigger and more complex ones. Literatures of risk management will provide methods and options of how potential risks can be managed. The combination of the three could be used as guidelines to examine potential risks, tendency of reactions and management options of small real estate management companies in Zurich, Switzerland. The attributes of this specific market also provided in the next section as background for further analyses.

2.1 Real estate cycles

Cycles has been introduced as a repetition of pattern of movements or levels in cyclical direction. Business cycle theory was developed from a group of economists named *the new classicals* since late 1980s which have explained the business fluctuations by a critique of the rational expectation (Blanchard, 2009, p. 609). Derived from business cycles, many studies (including Pyhrr, Roulac, & Born, 1999, Wheaton, 1999 and Liow, 2007) introduced and developed the understanding of real estate cycles by explaining the real estate cycles in macroeconomic perspective from the expectation in demand and supply sides. All agreed to belief in a lag of the real estate cycles from business cycles. Even though there were high interests and many researches in business cycles, the real estate cycles have been considered only as irrelevant or easily ignored from many reasons such as long holding period or measurement difficulties (Pyhrr et al., 1999, p. 10-11).

The real estate cycles are widely applied to explain the movements and interactions of many real estate factors (e.g. rental price growth, vacancy rate, construction rate), however they still do not have a standard definition compared to business cycles (Pyhrr et al., 1999, p. 29). The roles of expectations and imperfections are the center stage of the recent studies which

believe that there are no absolute all-in-one models or specific imperfections (Blanchard, 2009, p. 611). The characteristics of cycles are defined by the variances of assets, markets and lags even their oscillations are affected by the same set of economic movements. The evidences are following below.

Firstly, the different cycle properties from different types of real estate can be noticed from a stock-flow model in Wheaton (1999). The factors affecting directly the flow of supply stock explained in the stock-flow model are asset durability, economic growth, lag and expectation (Wheaton, 1999, p. 209). They are all unique for particular types of real estate, e.g. residential, hotels, department stores, etc.

Secondly, the properties of cycles from different markets are presented by Liow (2007) who suggested that diversification advantage of assets allocated across countries or continents will offer more return to investors in short term than those allocated in the same market, although the cycles across markets are not tremendously different in long-term period (Liow, 2007, p. 303).

Thirdly, real estate cycles are characterized by time lags which will lead to the mechanism of under- and over-exaggeration. As in Rottke, Wernecke and Schwartz Jr. (2003), these time lags derived from price, decision, construction processes and economic environment.

To be able to protect the core business and survive through the change of cycles, the decision makers have to understand the consequences of those cycles and their options of strategies. In different parts of real estate market, levels of impact are located differently as in Figure 1. In this figure, Rottke et al. (2003) examined the large disparity of German office market's cycle management already implemented and the possibility to consider more. The interpretation can be that the more significant the effects are, the higher level (possibility) of consideration according to cycles should be incorporated. As a result, real estate cycles are highly considered in portfolio management, real estate marketing, appraisal and analysis but should be more concerned in real estate finance, project development, corporate real estate management, public real estate management and facility management (Rottke et al., 2003). The difference between actual implementation and suggested consideration reveals some degree of risk due to cycles in those areas. It can be said from this figure that the bigger the

gap between expected and unexpected incidences is, the severer the possible effects they can cause.

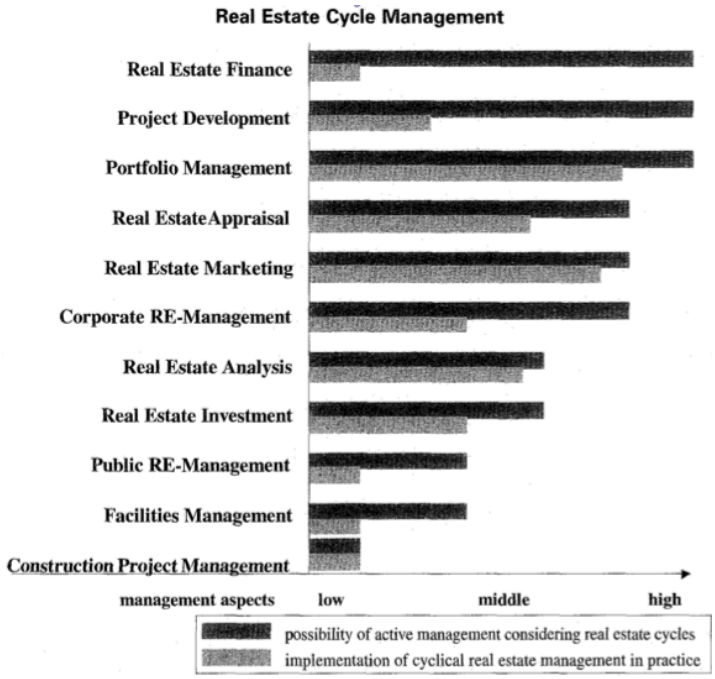

Figure 1 Possibility and implementation of Real Estate Cycle Management
Source: Rottke & Wernecke (2001/2002), as in Rottke et al., 2003, p 340.

Although the impact of cycles may lead to repercussions or unsafe decisions, many studies believe that the behavioral patterns of human are still the major roles. The decision makers tend to be extremely sensitive to a small change of any variables and will be amplified with the influences and consequence of lags. Atherton, French and Gabrielli (2008) proposed that risks from human behaviors due to uncertainty and lags can have a higher effect than the time value of money and other sensitivities. Implementation of sensitivity analysis, probability distribution and cash flow approach should be applied to captured all outcomes and possible risks from uncertainty. Solely conventional fixed-point analysis, e.g. best- or worst-case alternatives, is not enough (Artherton et al., 2008).

Cycle predictability

The combination of cycles' factors, determinants and historical data establishes some level of possibility to forecast the cycle of property market. Wilson and Okunev (2001) pointed out

that the same set of data yields different results from different forecasting models or approaches, and none of them can have consistently accuracy compared with each other (Wilson & Okunev, 2001, p. 473). Hence all investors have to suffer from a model selection problem equally. Other issues concerned: a single model cannot fit to explain a specific relationship and many models may also have correlated performances. Pooling of many models or combining models with negative correlation are recommended to reduce forecasting errors (Wilson & Okunev, 2001, p. 473). Some researchers (Krystalogianni, Matysiak & Tsolacos, 2004 and Mitchell & McNamara, 2009) also suggested that the use of relaxed or unrestricted models will increase the capability of forecasting as too specific models cannot be applied across all different areas. Besides that, the indicators for forecasting can be derived from activities of many business sectors rather than only from real estate (Krystalogianni et al., 2004, p. 2348).

Another prediction problem is the availability of information: many of real estate transactions are private, data can easily be outdated and the availability of data is asymmetric among stakeholders. Krystalogianni et al. (2004) confirmed that availability and accessibility to data are critical parts of forecasting. Using the cycles' determinants needs a deep analysis into their reliability, level of effects and the length of time they occurred before each phase of a cycle (Krystalogianni et al., 2004, p. 2348). With the constraints from methodology and information availability, forecasters cannot repeat their forecasting methods when location, physical features or time are changing. The forecasting techniques and the best use of them are developed actively by many researchers yet (Mitchell & McNamara, 1997).

Leading indicators

The recurring patterns of cycles are measured or identified by the movements of indicators, as clues of the turning points, either peak or trough. A simple classification of the indicators, discussed by Stutely (2006), is by their emerging times (*leading*, *coincident* and *lagged)* to overall economic activities. The leading indicators are expected to happen ahead of the turning points, possibly used to foresee possible consequences. The coincident indicators are parts of cycles measured to confirm the phases while the lagged indicators are possibly

leading indicators of the next cycle. Many of the indicators are combined into groups, smoothed, trend-adjusted into series or composite index forms then used to analyze the economic performance. The frequencies of publishing and revision are varied (Stutely, R., 2006). More often, these indicators are also used qualitatively, especially when they are descriptive and have less significant impact on decision making.

The leading indicators for real estate cycle can be listed differently according to the determinators of cycles as presented in the following.

Cycles by economic activities Some economic activities have significant effects to real estate sector and apparently vice versa. Therefore the economic indicators can be used to evaluate the movement of real estate cycles, too. These indicators could be extracted from many general economic studies (named here for examples: [1] the EEAG Report on the European Economy 2011, The Economist's Guide to Economic Indicators). The leading economic indicators mentioned here are not all used in this paper since some of them are in macroeconomic scale which are not focused in this study:

GDP, unemployment, interest rate, inflation, credit condition, confidence and sentiment, building rate, prices, rent values, wages, sales, balance of payments

Cycles by construction activities In the stock-flow model, Wheaton (1999) proposed to use supply elasticity as a determinator of construction cycle, since the supply will be elastic due to expected profitability (ratio between current property price and cost of production, Tobin's Q). The patterns of under- and overbuilding occur because of the difference between the highly elastic demand (from faster price adjustment) and the lowly elastic supply (from slower absorption rate and delivery time lag) (Wheaton, 1999). Considering the flow of this model, the cyclical indicators used to identify the phases of cycle can be listed here:

Property prices, housing supply (and absorption rate), seller expectation of profit, economic growth

[1] See Corsetti et al. (2011) and Stutely, R. (2006).

Cycle in real estate prices Another study of indicators is from Lind (2009), focusing on the indicators leading to real estate price bubbles. The systematic list of indicators, developed from and referred to China Academy of Social Science, is proposed here:

Prices and incomes ratio, housing expenditure, housing supply, price expectations of buyers, risk-taking and impatience of buyers, bank behavior, speculative behavior

The three different cycles above may have some similarity and differences of indicators. A single list by consolidation of these indicators could be the ideal approach to capture all cyclical events but not all may be significantly relevant. Admittedly, the selection of leading indicators used in this study may have issues of usability, one is the generalization of indicators and another one is the differences of selection criteria among firms. The highly fragmented real estate sector struggles with a list of indicators to be more generalized, e.g. the management parts alone may have more indicators in their list or even have those indicators in the composite or ratio forms. Lastly, this selection was done by grouping and discussions with the interviewees focusing on magnitude of effects and risk they potentially expose to real estate management in Zurich area.

The second problem of selection criteria are derived by expectation and behaviors of firms. In some behavioral studies, e.g. Gallimore et al. (2000), it was suggested that small firms seem to react like a human from high flexibility and 'personal' characteristics. Therefore, their preferences are different and difficult to measure, if at all quantifiable. The risk management strategies among them are also different by how risky the firms realize they are and be averse to. More details on behaviors of the small firms and risk management will be explained later.

Bubbles

Among aforementioned cycles, the cycles from real estate prices are the most important topic as the fluctuation of prices provokes bubbles, and the price bubbles pose substantial risk of losses. The effects of a price bubble seem to be more intense in residential real estates. The construction period of housing is shorter than most of commercial real estates, the transactions are more private (asymmetric information), and most of the buyers consider

their houses as utilities rather than investment. Nevertheless a bubble itself cannot easily occur or develop to burst. But there are many factors needed to set it up. The clear definition and framework of price bubbles in Lind (2009) will be considered here. Lind (2009) proposed the following necessary conditions for dramatically changing of prices as bubbles. All of these conditions need to be fulfilled otherwise bubbles might not happen.

a) Macroeconomic situation

b) Structural changes

c) Roles of capital and credit market

d) Beliefs, expectations and plans of actors

e) Incentives of actors

The conditions above are different from market to market as well as the magnitude of impact to their actors. The impact of the latest price bubble crash in 1990 was a nightmare to Swiss real estate market. Albeit close monitored and regulated by Swiss authorities in the past, bubbles escalated and bursted. At present in this study, risks from bubbles are reported as high in Geneva and Zurich area as the demand is strong, prices are rising, mortgages are cheap (low interest rate) and higher conviction of no risk of buying houses. The probability to predict the bubbles and reduce potential risks accordingly comes from the early recognition of their indicators and the discerning management of those risks. The questions of how the small real estate management firms in Zurich consider available indicators to manage risks from bubbles will be investigated in section 3 and 4.

2.2 Behaviors and decision-making processes of small firms

The study of decision theory reviewed here provides an understanding of how the choices are made. French (2001) explained the decision-making models of real estate investment in three different approaches[2] of normative, descriptive and prescriptive models. French (2001) described:

[2] Rather than traditional two-sided approaches of normative and descriptive model, French (2001) proposed the additional prescriptive model to deal with the apparent distinction between rational suggestions and the final decisions.

"*Normative analysis*--models that suggest how we *should* decide.

Descriptive analysis--models that purport to describe how we *do* decide.

Prescriptive analysis--models that use normative models to guide the decision maker within other limiting cognitive parameter"

The normative model for property market is too ideal and could be homogeneous if applied, while it has nothing to do with the descriptive one rather than the explanation of actual decisions. It is the 'cognitive parameter' which makes the prescriptive model to be realistic and viable with both information and insights, according to French (2001). It can be considered as 'soft' parameter compared to 'hard' information of historical data, databases and predictive forecasts. The examples of this parameter are from behavioral aspects such as the interpretation and assessment of risk, competitor tendency and other non-financial desires (French, N., 2001). Therefore, heuristics, biases and irrational expectation are common in the decision making.

The study focusing on decisions made by small firms by Gallimore et al. (2000) escalates the effects of these behavioral factors. Gallimore et al. (2000) found that the small and medium size companies do not follow the 'appropriate' suggestions from normative model but tend to weigh more on personal contacts and exclusive information available outside public sources. It is also possible that the investors can overact or be excessively optimistic to the information they have gotten, consider more into microeconomics and private information than from general market. Other attributes of the small investors from that investigation are: heterogenous market, limited entrepreneurial knowledge, human alike behaviors and more active management strategies (Gallimore et al., 2000). These characteristics provide them to be more flexible, adaptive and specific expertise.

Comparably, there are some evidences that small companies can be more efficient than the large and professional firms. Psilander (2007) pointed out that the institutional flexibility of the small firms is the key success of their cost-efficient performance, profitability and competitiveness. Although the problem of scale disadvantages could harm them

theoretically, but the awareness of project size and substitution of in-house resources to outsourcing will make they more efficient than the large firms (Psilander, 2007).

2.3 Risk management in real estate

Fundamentally risk management in real estate is in the same fashion as other businesses from the operation of context establishment, assessment and treatment of risks. Risks in real estate market can be varied from different business activities among firms as well as how they interpret and prioritize those risks. Range of risk management options is from minimization (of unfortunate impacts), monitoring, control to maximization (of potential possibilities).

Risks in real estate market

For the boarder view, total risk is composed of systematic (market) risk and unsystematic (specific) risk. As the market risk is applicable to all the players in the market, the opposite of specific risk is still in asset level and should be focused more for distinctive decision-making processes and strategy analysis. The specific risk, hereby depicted simply as 'risk' if not mentioned particularly, relates to individual asset, portfolio and related activities. Because there are no official categories of risks regardless of markets, classification of risk also varies. The first approach is by area to which risk relates: whether they are specific risk such as economic, business, financial, physical, regulatory or political, legal, tenant, health and safety, etc. This approach is widely used to explain sources and attributes of risks for both generic and specific purposes. The major problem is the inconsistency of categories derived from this approach: some areas of risks are interconnected and cannot be clearly discerned.[3]

The second approach is more thorough, categorized by levels of operations. In the following some studies are applied to this approach to define risks. The studies of Teachers Advisors, Inc. (2008, *What is risk management and how does it apply to real estate?*) and Adair and

[3] Some examples are:

Huffman (2002) divided corporate real estate risk into physical, financial and regulatory risks.

Zurich Insurance plc. (2003) offered their services to cover premises, tenant, legal, health and safety risks.

Geltner, Miller, Clayton and Eichholtz (2007) examined negotiation and risk management strategies in real estate into economic, management, operating, exchange rate, vacancy and repair risks.

Hutchison (2005, *The reporting of risk in real estate appraisal property risk scoring*) provide an image of multilevel risk in real estate inferred and presented below.

Operational risk is the risk to operate, manage or maintain the business activities, can be considered into three levels: firm, product (or asset) and portfolio levels. Examples of this risk are: strategic risk, business operating risk, leverage, product design features, asset correlations and investment concentration (Teachers Advisors, Inc., 2008). The same set of these three levels is also utilized in The Investment Property Forum/Investment Property Databank (2000), as in Adair and Hutchison (2005).

Property, or deal-level risk is from participation between stakeholders while the firm is providing their services or making transactions. Examples are from the nature of real estate itself, from related capital market or from others such as: real rate, inflation, availability of capital, pricing, tenant credit, equity, added value, opportunistic risk, illiquidity, ownership structure risk, country (regional) risk (Teachers Advisors, Inc., 2008).

Both approaches of the risk identification will be used in this paper. The first approach is presented as part of the interview as it can be accessible directly and easily compared to the second one. The second approach is the better tool to categorize and analyze the risk for better results afterwards. However, the risks listed above are neither significant for nor associated with the real estate management companies in this study.

Management of risk

Practically in a small real estate management firm operated by a handful of workforce, context of risk management is established as part of general management tasks and most likely not designated to a specific individual. As a result, all risk management processes can be operated by general managers or, in many cases, everybody in those firms. The process of risk management according to the International Organization for Standardization (ISO) in ISO 31000 Risk Management--Principles and guidelines is simply illustrated in Figure 2.

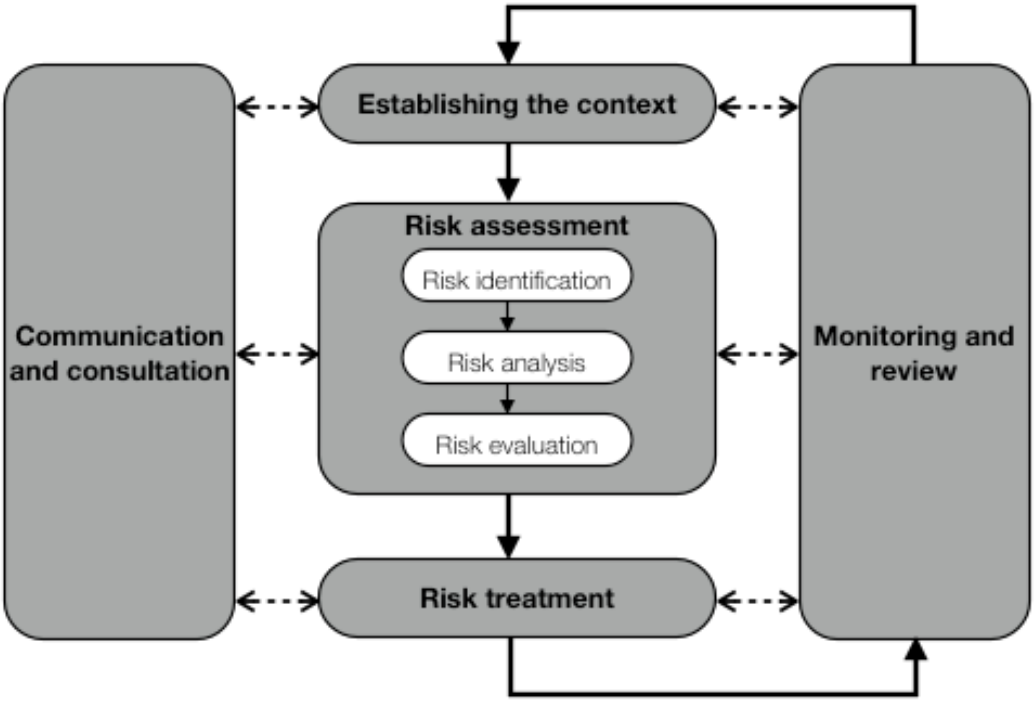

Figure 2 Risk management process
Source: ISO, 2009, p 14.
Remark: The arrow lines are modified differently to original version to clearly distinguish between 'progress' (solid line) and 'relation' (dotted line).

From diagram above, it can be said that the relations of risk management activities are interconnected and the process can be an ongoing operation. The establishing of context, monitoring, communication and consultation are parts of organization's operational responsibility on a day-to-day basis which are not in the focus here.

The remainder of assessment and treatment of risk involves steps of identification, analysis, evaluation and handling to reach the preferred prospective outcomes. Tools, methods and frameworks for these processes are developed and offered by many professionals nowadays as parts of their risk management services. However, the information used and strategies guided are mostly qualitative or sometimes even intangible since the measurement of risk itself is questionable. Although some risks can be measured quantitively, e.g. volatility of returns quantified by standard deviation, many of others are still discernible.

Risk assessment

The very first step of identification consists of listing and categorizing risks as well as analysis of their sources for reliability. As previously mentioned, it contends with different perspectives about risk and the same applies to the measurement of risk.

Most of conventional measurement tools analyzed only risks related to rate of return and omitted other potential business risks (e.g. competition, market change). One reason proposed by Adair and Hutchison (2005) is that the risk reporters would like to avoid their clients confusion. Additionally, and unfortunately, the risk reports are also imposed by "highly restricted and perhaps inappropriate set of measurement and management techniques" (Adair, A. & Hutchison, N., 2005, p. 258). As a consequence they examined the D&B[4] model and applied it by using rating technique to determine pricing risk. Resulting from that, property risk scoring (PRS) was proposed. According to PRS, the five-point scoring system of risk assessment is used when the investment decision is made:

1: minimal risk
2: lower than average risk
3: average risk
4: greater than average risk
5: high risk
-: insufficient information

This method will make the qualitative risks more systematically measurable in many contexts. One of the possible issues could be the different views and risk recognition of valuators. Calibration and updating of this scoring are needed regularly to resolve this issue (Adair, A. & Hutchison, N., 2005).

After risks have been identified and measured, they will be analyzed and evaluated for potential impact and probability. Analysis tools offered as products by many risk management companies or institutes are based on questionnaires and calculation of

[4] D&B model is developed by D&B UK Ltd. (part of D&B Corp), the largest commercial rating company in the UK (Adair, A. & Hutchison, N., 2005)

probability. The main issues are the accuracy of answers, database and estimation methods influenced by experiences of both answerers and evaluators. It is possible that the outcomes may not be made explicit and again the decision makers have to recognize the likelyhood of errors from insufficient information or inappropriate analysis.

The evaluation process will utilize the analysis outcome by comparing and prioritizing potential impacts of risks, then determine whether the treatment should be implemented or another analysis should be undertaken (ISO, 2009). Finally, risk should be treated only if its level does not meet its criteria. The final decision may differ from what the analysis have been suggested as solely nominative analysis is not enough.

Risk treatment

The risk impacts and their probabilities are assessed in order to manage or 'treat' them properly. The risk treatment is the process of choosing and implementing risk options individually or in combination, due to risk levels and tolerance criteria (ISO, 2009, p. 18-19). The risk options can be considered as risk management strategies which include:[5]

Avoidance: withdraw, remove, stop or not to start activities enhancing risk

Mitigation: optimize, control, reduce, limit, hedging, due diligence or diversify

Sharing: shift to others, transfer or insure

Retain: accept, postpone or monitor

Some important notifications from ISO (2009) are: the decision makers should realize that the risk treatment itself can also introduce new risks for other areas, and residual risk is still existing after risk treatment.

[5] Sources: International Organization for Standardization, 2009; Huffman, F. E., 2002; Teachers Advisors, Inc., 2008.

3. Risk in Zurich's real estate market

3.1 Market structure

Switzerland has had a continuously increasing demand of housing due to high level of immigration for decades. The largest city Zurich has also highest inward migration rate, approximately 80% of its population growth is through immigration (Swiss Confederation, 2010a). Additionally it has high level of population in working age, economically active immigrants and single person households compared to other cities within Switzerland (Swiss Confederation, 2007). These attributes keep the demand for housing in this area on high level. Similar to many urban cities, the number of dwelling units (aka apartments) in the same buildings have been exceeded the single houses for more than 20 years. The reasons are the relatively high prices of properties, limited space and intense intra-city communication. Both owner-occupied and rental apartments remain in the top parts of real estate price indices and tend to come closer to each other as low rate of dwelling ownership continues, notwithstanding high prices. If the inward migration is believed to be one of the key strength for Zurich real estate, the unrestricted possibility for foreigners to buy a property (as a main residence) is a booster.

Considering a property as an investment, direct real estate investment in Switzerland is very stable and has approximately 1-year lag of indirect investment due to less frequency of appraisals (Vetsch, 2010). This delay gap between the two can increase opportunities for real estate investors and developers who have advantages from accessibility of asymmetric information. As arbitrage is impossible because of illiquidity of the direct investment, risks and returns situate between this lag.

Returns from Swiss rental real estate are attractive, albeit risky from external financial features, e.g. interest rate. It sounds promising for landlords as Swiss tenancy law allows rental to increase from rising mortgage rates or cost-covering level of gross revenues (Furrer and Vasella, 2010, p. 67). However, the rents cannot be increased further than recommended amounts (from organizations of tenants, landlords or equivalents) and not beyond the level of excessive returns for property (Furrer and Vasella, 2010). As these rents

are not abusive, risk from rising interest rate is possible to be shifted to tenants. The risk of tenants' discontinuity in the presence of market competitiveness and possible regulative compensation from pro-tenant Swiss law are still the landlords' hurdles.

3.2 Influences from economical activities

International economic fluctuation undoubtedly exposes some risks to Swiss and Zurich real estate markets, but compared to risks from Swiss domestic activities themselves Switzerland is very resilient to the external world crises. The latest economic downturns in 2008, for instance, had only moderate aftereffect to overall Swiss market. Consumer confidence index, GDP growth, unemployment and immigration rebounded very quickly thereafter (Wüest & Partner, 2010).

Mostly, peaks and troughs in a business cycle can be defined by GDP (output), meanwhile the reaction of housing market due to business cycles is defined by the changes of price. The relationship between the output gap[6] and housing prices examined by Catte, Girouard, Price and André (2004) in Figure 3 reveals the real estate cycles from economic activities. As a result, the prices in Swiss real estate market have the intensity of correlation to business cycle at average level (correlation coefficient is between 0.5-0.65) and timing of correlation around 3-4 years lagged from business cycle (Catte et al., 2004). With these results and the overall performance[7] of Swiss real estate, it could be said that Swiss market is in the very good shape with less influences from economical impact.

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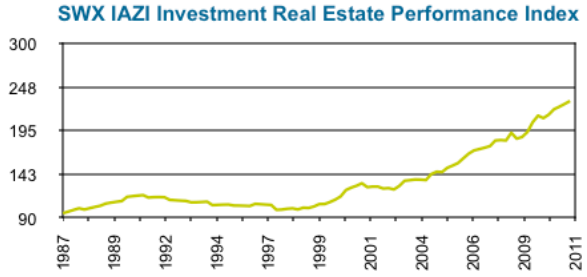
[6]GDP gap or output gap is the value between the actual output and potential output, normally used to indicate states of economy as expansion (positive) or recession (negative).

[7] This index comprises SWX IAZI Real Estate Price Index and the net cash flow yield of IAZI Swiss Property Benchmark as a total return index, all cash outlays are deducted (IAZI AG, 2010). The index is illustrated below:



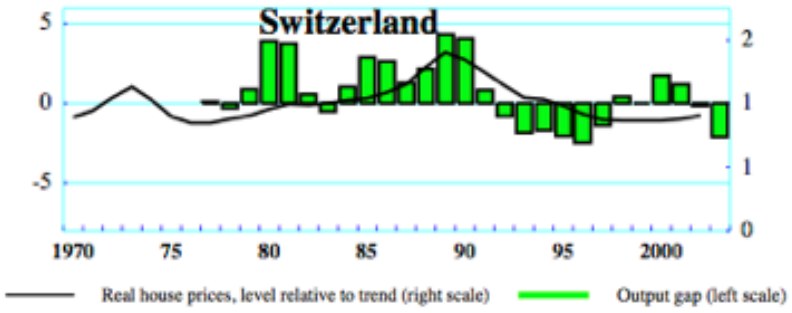


Figure 3 Real house prices and the output gab
Source: Catte et al. (2004)

3.3 Evidences of cycles

Cyclical construction activities observed in Swiss real estate market are common and easily explainable by the stock-flow model. In Figure 4, the construction rate of housing (Reinzugang an Wohnungen) was over- and undershooting through the level of available supply (Leerwohnungen) with delivery lags. More detailed data of housing supply and market outcome of Zurich exhibits the same cyclical movements as shown in Figure 5.

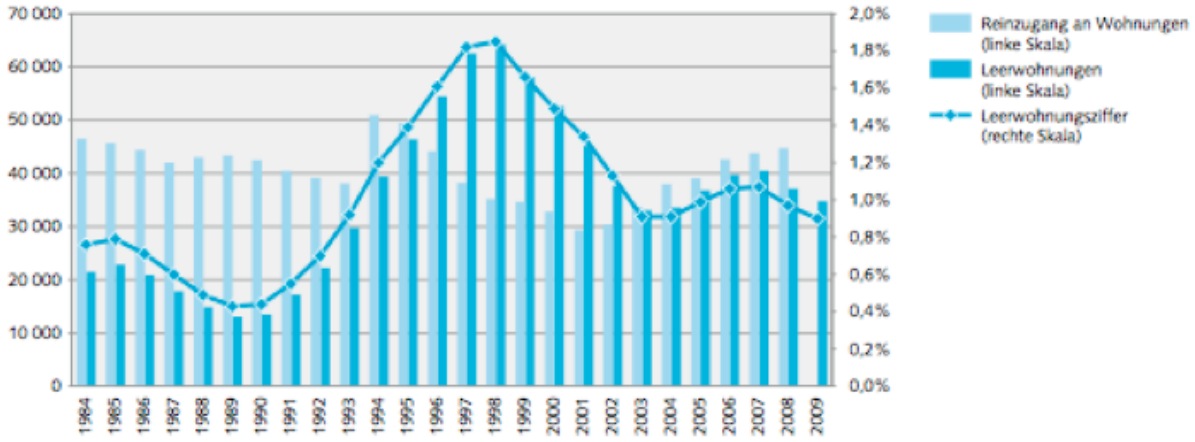


Figure 4 Construction rate, available supply and vacancy rate of housing units, Switzerland
Source: Translated by the author from Swiss Confederation, 2010b.

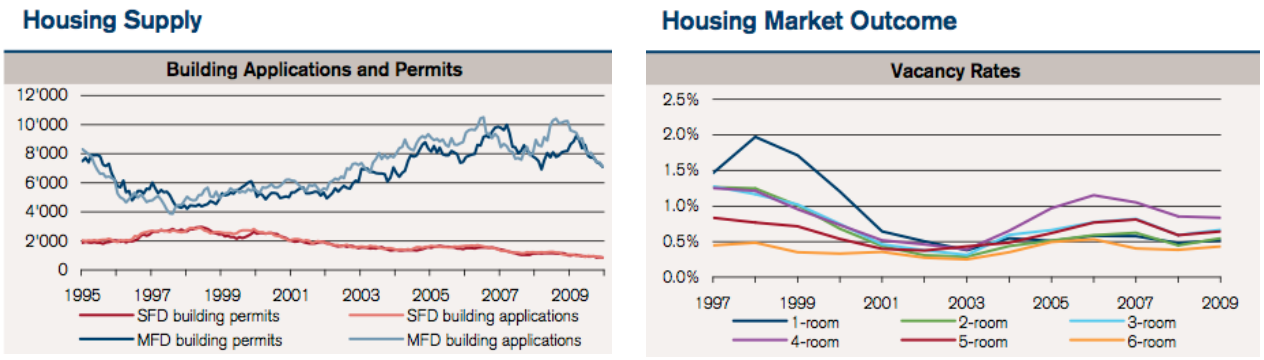


Figure 5 Housing supply and market outcome: Zurich 2010
Source: Credit Suisse (2010)

The leading indicators examined in part 2 are aligned with Swiss public-access analysis resources (Credit Suisse, Swiss National Bank, IAZI AG, Wüest & Partner, Swiss Statistics), regression results of Swiss housing market (by Steiner (2010) within a stock-flow framework) and discussions with prospect interviewees (who are familiar with Zurich real estate market environment). The potential leading indicators selected to be used in this study are presented below:

Property prices, confidence of buyers, available projects in the market, vacancy rate, unemployment, trend and expectation

3.4 Potential of price bubbles

The latest price bubble bursted in late eighties and hindered the growth of Swiss real estate for more than half a decade. Fortunately the prices rebounded steadily and have been increasing overtime albeit very slow. Considering the very low vacancy rate (Leerwohnungsziffer in Figure 4) of less than of 2% for more than 20 years and the less volatile house prices, Swiss real estate market is stable with consistently strong compared to many countries. Disparities of house prices between Switzerland and other countries are shown in Figure 6.

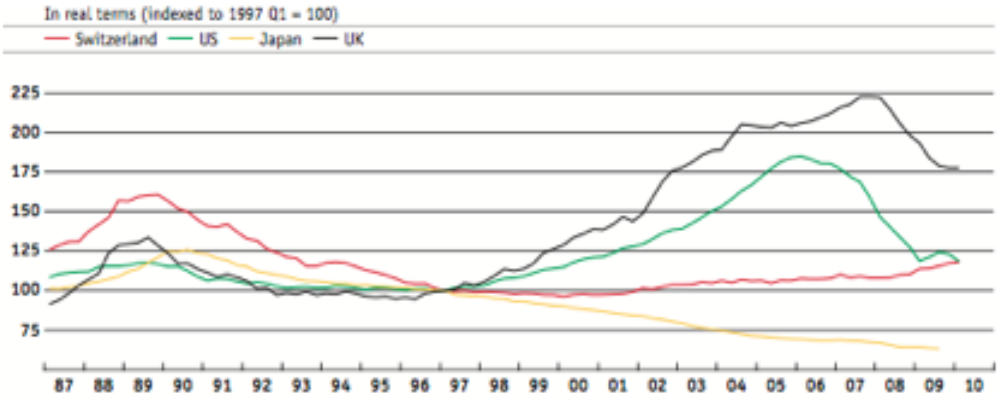


Figure 6 Residential real estate prices
Source: Swiss National Bank, 2010.

Although without any alarms for price bubbles since early nineties, the study of Swiss housing market by the rearranged stock-flow model of Steiner (2010) reveals some level of possibilities.

Generally, like other conventional stock-flow model implementations, the desired (or equilibrium) level of stock is different from the actual one. The following period is also needed for stock imbalance correction. On the other hand, prices will adjust in a shorter time, the same way as if it responses to any shocks. Inevitably, two unpleasant evidences exist: the very long delivery time and high dependency of prices to stock imbalance (Steiner, 2010). First, delivery time to correct demand of Swiss housing stock can be years. Not only the construction process itself, but also the timely initial decision making, planning and administrative procedures are key reasons of delay. Added to this delay, the responsiveness of residential investment for housing stock is also sluggish. Steiner (2010) found that only one-third of long-run investment level is cleared in the following year.

Second, the empirical test of price adjustment due to stock imbalance provides very strong correlation (Steiner, 2010). As the level of stock is rarely in equilibrium with demand and delivery time is so long, some may expect that price adjustment could fluctuate dramatically and price bubble might be triggered quite often. These conditions may not have been enough for Swiss real estate market, historically. The important resistances could be its restrictive regulations on planning, strict legal and institutional structure, low housing

supply responsiveness, etc. Steiner (2010) also concluded that the above conditions will maintain the low price elasticity of demand in Swiss market.

3.5 Risk management options

The general framework of risk assessment and treatment of real estate market can be identical as presented in Figure 2. The channels, tools, models, drivers and stakeholders therefore differentiate each fragmentation of the market to have its own uniqueness.

Risk assessment

There are many sources of data and information from which Zurich real estate managers can derive. The public-access sources such as news, media, statistic data, indices and analyses are easily accessible but will provide mostly on broader levels of risk applied to all players. Including the selected leading indicators, the data can be raw information, plausible analyses or active suggestions. However, as they are distributed publicly, merely use of these channels could lead to herd behaviors and expose more to operational risk. Important sources for composite indices used to benchmark Swiss real estate market are:

Property Market Report by Wüest & Partner--appraisal-based, smoothed from internal and external data pools, quarterly published, including market trends; and

Swiss Property Benchmark by IAZI--transaction-based, derived from internal data pool, quarterly published, providing overall performance of market for investors.

Both of the providers above are private and offer some data publicly, more specific and detailed data is provided to only subscribed customers.

The other sources of data extracted by many small firms are personal contacts and private analyses. The personal contacts seem to have a major role in Zurich market even the city

itself is relatively big. The level of correspondence can be person to person, among group members or provided as duties of participated associations[8].

The risk analysis and evaluation in many small firms are not operated by risk managers executively. Whether they are operated by a general manager of many others, associated risks are managed by experiences and occasionally emerging risks are assessed according to their criteria, management styles and strategies. Considering the advantageous of size, flexibility and efficiency in these small firms, the procedures of risk identification, analysis and evaluation may not be distinct. Only the most reliable data source will be accessed to mitigate those risks when it comes to critical situation. It could be expected as well that the risk analysis tools, as questionnaires or benchmarking models, are not implemented within these firms.

Risk treatment

All the options to avoid, mitigate, share or retain risks are common for Zurich small real estate companies as parts of day-to-day business operations. The mitigation and sharing of risk can be done with support from authorities and institutions by regulations or other mechanisms. For example, the building allowance is obligated by cantonal authorities to control housing stocks and construction rate; insurance products are competitively offered nationwide to compensate possible damages from risks.

The companies we focus here are located and service mainly in Zurich and have a very high proportion of residential real estate. Therefore while other risk treatment options are possibly applied, the diversification neither by geographical locations nor property types may be considered as an option for their risk management strategies. In the next part, the analysis from the interview results will be introduced and compared to what we have been previously examined.

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[8] Examples are:

The Swiss Real Estate Association (Schweizerischer Verband der Immobilienwirtschaft, SVIT)

The Swiss Association for Housing (Schweizerischer Verband für Wohnungswesen, SVW)

The Association of Property Investors and Managers (Verband der Immobile-Investoren und -Verwaltungen, VIV)

The Swiss construction trade federation (Schweizerischer Baumeisterverband, SBV)

The Home Owners' Federation of Switzerland (Hauseigentümerverband Schweiz, HEV)

4. Risk management analysis

4.1 Methodology

The research results reported and analyzed here were obtained from the semi-structured interviews. The interview questions were formulated according to the theoretical parts of this paper with predefined topics and answer options. Together with open and descriptive questions, the interview granted interviewees latitude of their answers within the focused topics. The five-point scoring technique of risk assessment was also applied for more quantitative results. The interview questions were submitted prior to the interview date and compiled into English and German versions. For further details, the interview form can be found in appendix. The interview results were analyzed and discoursed in parallel with the theoretical extent from the literature review part, then presented in comparison patterns.

The adopted interview questions style was developed from risk assessment questionnaires with more flexible themes and discussions. Main questions were:

How risky the interviewee thinks of his/her business is? Why?

What kind of risk the interviewee considered as critical to the company? How?

Which channels are often used to capture the market situation?

Which tools (and provided from which organizations) are used to assess the risk?

As the competitors may recognize the same movements or situation, how can the interviewee's company perform better off?

What are economical indicators the company is monitoring?

Has the company's structure ever changed due to economic indicators?

Considering of risk reduction due to economical movements, what are strategies which were used in the company?

The focus group in this study is from the small real estate management companies located and operated within Zurich real estate market servicing mostly in residential market. The selection criteria of firms interviewed and presented as case study are from area of operations and sizes. Apparently in Figure 1, the cycle management's implementation and potential are varied among different real estate operations. Gaps between actual implementation and possibility of higher consideration are significant in only some areas as they could concern more in cycles (Rottke et al., 2003). Besides not all of those operations can be found in small enterprises or in residential category, only some certain areas will be investigated here. The next selection criteria of potential interviewees is the size of the company. According to the European Commission's declaration, a small enterprise employs less than 50 headcount with annual turnover and balance sheet total not further than 10 million euro (European Commission, 2011).

Regularly the larger number of participants introduce more answer options and the quantitative approach can also indicate clear proportion of each option. Eventually from numbers of companies approached for an interview, two companies participating in this study were selected based on their dissimilarities. The limitation of study areas, small numbers of accessible samples and concerns of company's secret disclosure might be the common causes of small participants issue.

Since each firm cannot be identical to one another and decision making is inevitably suffered from inconsistent and heuristic manners, the thorough investigation of specific small samples could unfold the individual characteristics and management strategies toward risks naturally. In spite of that, the limited numbers of companies are compatible to be presented within our case-study approach as it emphasizes on comparable attributes. The differences between business operations of the interviewed companies were also advantageous for broader analysis aspects.

The first company (in the following "A") was bigger (32 employees, 3-5 million Swiss Franc average annual turnover) with broader operations. New rental and tenant-owned apartments were its main areas of services. Business operations of A included project

development, analysis, marketing, agency and consultancy. The interviewee was responsible for entrepreneurship, marketing and research.

The second company (in the following "B") was a smaller family-owned company (4 permanent employees, 0.5-0.6 million Swiss Franc average annual turnover). Scope of services included newly built and renovated rental apartments, in the same proportion. B offered its clients mostly real estate administration, project management and marketing (and real estate agency occasionally). The interviewee from B was the owner of the company.

All interviewees were the decision makers of their companies and responsible in topics related to risk management, alone as an owner or in team with owner and other executive officers. The focus of all comparisons between two companies is to demonstrate some of the variation of risk recognition, assessment and management in small real estate management companies of Zurich local market. With the distinctions between the two in many aspect, the superiority was intentionally omitted.

4.2 Risk management tools

Resources of data and how the focused companies access, assess and evaluate them are presented here. The predefined answer options for this part were listed from available public-accessed data and pilot interviews. The interviewees were asked to prioritize and provide information including frequency of use, reliability, performances, expectation and reasons of their answers.

Accessibility and assessment

The sources of data frequently accessed in both companies were from news and media. The ease of access, plenty of sources and most updated contents are the main reasons undoubtedly. The other channels were from personal contacts, own research, analysis institutions and association memberships. Company A admitted to be informed by and interact with personal contacts in daily basis, had its own research internally and observed the external analyses monthly. Primary statistic data, indices and analyses were selected, monitored and examined for its research. The results from both internal researches and

selected external analysis institutions were compared and evaluated regularly. The risk assessment tools used in company A were not in a formal or tangible way, they were based on discourses from available descriptive data and the interpretation of own database, no risk management product has been adopted. It is the company's multidisciplinary business operations which require centralized and internal research data. The interviewee, project development manager, explained the company's database that it consists accumulated information of the past projects and statistical data with customized models and formulas. As these database and research results are accessible by all departments, the specific interpretations (e.g. focused solely on cycles or risk) will be conducted only if necessary.

Other than updated from news and media or having official own researchers, company B was eager to be informed by association memberships regularly. Each person of this company acted as an occasional researcher which also obtains necessary data from other analysis agencies. The external analyses were not a crucial part of B's decision-making process but used to recheck its analysis accuracy and potential for improvement. The personal contacts in this firm were defined by the correspondence between person to person and by the exchange of information among group members of the associations in which the company participated. The direct analysis of primary statistic data or indices seemed to have less significance compared to the importance of secondary data resources B relied on. Each of these sources was accessed in indefinite patterns. Because of the close relationship between people in the company and casual connections to external information providers, the frequency of access was occasional and very flexible. The risk assessment was thus conducted in the same fashion, it was done by personal judgements based on discourses and no risk management product involves.

Evaluation

The preferred sources above were prioritized by reliability and performances into two groups as the following.

Main sources Company A granted its own research as the most important risk assessment source from highest levels in reliability and performance, the statistic data used

in its research was therefore the main information. The personal contacts also had high reliability from A as exclusive consultants and a supportive function to the research. Without an apparent research team, company B trusted its personal contacts but preferred more to ones outside participated associations' members. The difference of reliability between its contacts inside and outside the professional associations were from sense of competitiveness and neutralization. The exchange of information among group members was beneficial to the whole group but the competition between each of them was unavoidable.

Minor sources The indices and analyses from external sources had lower reliability to A, however much more than news and other media. The same also applied to B. First reason to grant them as minor sources was the level of access and there was not much exclusive data to obtain. Another reason was the approach of available analyses which are offered as suggestions or insights from historical data without customizing to specific clients. The names of analyses providers, mentioned in section 3, for composite indices and benchmarks were confirmed.

4.3 Decision-making process

The evidences of prescriptive analysis from both firms are straightforward, suggestions were used as guidance only and decisions will be made by their own judgement and 'instinct'. Although it might not be the real embedded 'instinct' as they mentioned but it was clear that cognition parameter is more appealed to their decisions. The supports from their regularly evaluated main sources and their flexibility of business operations facilitated the decisions to be more logical despite the fact that this parameter can expose them to heuristics, biases, irrational expectation and exaggerative responses, according to French (2001) and Gallimore et al. (2000).

Performance and efficiency

From there own opinions, the overall speeds of their decision-making process were considered as fast. A believed to be faster than its competitors but the performance should

be improved while B believed to be in the best position compared to the competitors of its operations. These replies alone seem to be relevant with Gallimore et al. (2000) of overacting or excessively optimistic thoughts in small companies but if consider into their actual experiences, exclusive relationships to trustworthy sources and flexible entrepreneurial structures, the faster speed of decision making and better performances can be the logical results.

Expectations

The optimistic foresights of this local market were in evidence. Both companies expected property prices and rent to increase stably and continuously. Since these companies were established long after Swiss economic crisis, it could be assumed as none of them experienced the comparable critical situations. The common cyclical movements of real estate market were noticeable for them but none of them had to make a major change in their companies due to those cycles since the establishments. They operated in the same speed and capacity whether the expansion or recession was expected. Only with B during peak time, its very small size brought about additional employments of freelancer and outsourcing professions, e.g. trustees, architects, specialists, project inspectors. All of this employments were selectable, short-term and repeatable.

Recognition of risk

Even though the positions of the interviewees were not risk managers directly, all the risk management processes had been operated under their control regularly. They believed their companies exposed to risks overall in low level. First, the Zurich real estate market has been very stable in demand and prices, even several unexpected shocks happened. Second, both companies were not direct investors but service providers. Third especially to B, their services were obliged by long-term contracts. From these reasons, risk management has not been the companies' focus (goal of company A was brand recognition while company B aimed at stability). Albeit the overall risk was low, both companies admitted concerns to risks listed in descending order below.

Company A:	**Company B**
Liquidity	Competitiveness
Competitiveness	Market trend
Business secrecy	Customer management
Employment fluctuation	Legal difficulties
Property allocation	
Negotiation and communication	

From this list, their recognition and concerns of risk can be categorized into different level of business operations, as we have been introduced in section 2, are presented here.

Operational risks at firm level: Both interviewed companies fully recognized and concerned the business operational risks the same way as other profit-driven companies. These risks were common to other players in the same market and were managed regularly. For that reason, both companies did not consider the business secrecy, employment fluctuation or customer management in their first priorities.

Operational risks at product level: Competitiveness was mentioned as very important risks in the interview sessions. The preferences of exclusive data sources explained previously were the results of this topic. To be better off their competitors, these small firms required the applications of tactical tools, active management and strategies. To assure that these items were ongoing improved was one of their main duties. Concerns of product design (trend), property allocation, communication and negotiation were also considered as potential risks but not in significant level, according to their answers.

Property or deal-level risks: Liquidity was the critical risk for A while B did not consider it at all as risky. From the discussions and other answers from A, the reasons were from company's size and goals. Company A, a bigger company with several departments, required the optimized levels of turnover and liabilities for smooth operations of every department. In addition as brand recognition development and value maximization were in the highest priorities of its goals, well-managed liquidity and finance were unavoidable. On the other hand, goals of company B focused most on stability of its business operations. With long-term contracts, flexible

employments and insurance products, company B believed to have no risk in liquidity. The only concern B had in deal-level risk was the legal difficulties. Contract management, tenancy laws and regulations required B to rely on external law experts and consultants. The high proportion of non-German speaking immigrants in Zurich real estate market made this issue even more complex.

Neither macroeconomic risk nor risk from regulatory changes were in their considerations. The first disregarded risk confirmed the characteristics of small firms' decision making proposed by Gallimore et al. (2000) while the second one revealed the reliable and stable Swiss regulatory systems.

4.4 Strategies

Risk management

The risk management strategies of each company according to its risk recognition and tolerance were analyzed according to types of risks as the following. As mentioned earlier, the monitoring, communication and consultation were assumed to be conducted fundamentally.

Operational risks at firm level: The business operational risks at this level were common and solutions were developed overtime. They accepted and considered to retain these risks by monitoring them closely. The options of control or optimization to mitigate unconventional risks were also applied. For example, risk of employment fluctuation in company A is monitored but A could also adjust the employment inception according to number and workload of available projects too.

Operational risks at product level: Optimization and adjustment were main strategies for both of them to mitigate risk of competitiveness. The advantages from size of being fast and flexible helped them to manage these risks well. Even though the diversification of cross-cities geographical locations and property types were not considered as their options, the diversification of property styles, prices and intra-city locations were still possible and valuable for their broad-offered catalogs.

Property or deal-level risks: The risk of company A's liquidity was mitigated by the diversifications above, too. The diversification of services with support from different departments (or from external professions in company B) increased the opportunities to reach new clients as well as satisfied their current ones. With limited employees in a company, B required consultancy and insurances to share (or shift, literarily) its risks. Again in many cases as B was not a direct investor, the payment of consultancy and insurances were not its responsibility. This was usual for property administration projects, according to B, to transfer all the risks to other players including clients and insurers.

Cycles and leading indicators

The predefined leading indicators in the interview questions were selected and prioritized in descending order as the following.

Company A:	**Company B**
Property prices	Property prices
Projects in the market	Projects in the market
Buyers' confidence	Market trend and expectation
Vacancy rate and unemployment	Vacancy rate
(The last two were in the same level)	Unemployment

From these results, it was obvious that the property prices were the most important indicator for the focus companies. As the prices in this local market were increasing slowly and steadily, concerns of these companies were not the possibility of bubbles but the increase of prices or rents they might set. Company B revealed that it was an important and difficult duty to propose the right amount of rent increase to its clients as too low amount could cost long-term losses to its clients and too high amount could increase risk of abusive rent, lose current tenants and worsen competitiveness. The interview of company A, also as a researcher, responded that the prices had major impact on many of the company's risk aspects (as listed previously in company A's risk concerns). The changes of price are also a driving information for other departments' decision-making processes, too. Number of available projects, the second place in both companies, could also considered as part of the

market competition. Despite of the size of these companies and many available competitors, market share seems to be very important. The interviewee--and also owner--of B mentioned the importance of this indicator as it signifies the company's position within the market as well as potential for further improvement. Company A monitored on supply as source for its marketing strategies and consultancy services.

Two distinctive indicators considered differently were buyers' confidence and market trend. The reasons behind their selection were direct, their portfolios were different. About 80% of properties managed by company A were tenant-owned apartments. The decision to buy a property requires affordability, support and adequate confidence as a long-term investment. Company B provided its services almost solely on rental apartments which, compared to home buyers, were short-term occupancy. The decision to rent a dwelling unit is easier with less expenses. From this reason, directions of market trend were preferably monitored by B.

Vacancy rate and unemployment were rarely monitored by both company as they has been low for long time (vacancy rate in Zurich residential market is 0.07% and unemployment rate is 4.7% currently (Statistic Office, 2011)) and could be considered as supportive evidences of other indicators only.

The interview sessions and discussions with the interviewees over cycles and potential bubbles were limited. The cyclical movements in this environment were common and believed to be unthreatening. The interviewees did not concern with them. The steadily increase of prices indicated the low price elasticity which overcame the effects of over- and undershooting of supply levels. From this reason, it is understandable why both companies focused more on changes of prices and demand. One more option of company B to secure its business operations was the extensively designed contracts. Additional costs due to external factors and beyond its control will be transferred to other parties entirely.

5. Analysis and summary

Long delivery time and low elasticity of supply are common in real estate market and, combined with other factors, can threaten each party in that market from uncertainty and expectations. Some studies proposed that small companies which are excessively optimistic

and human-alike could have higher effects from market fluctuation. In the mean time, the flexibility and active management found in these small firms might be the key success to manage existing and unexpected risks. The study of small real estate management companies in Zurich exposed some evidences associated to the previous studies, especially in behavioral perspective. Although the attitudes and decision-making processes of such firms toward risks are different. The stable and resilient structure of Swiss real estate market allows them to be optimistic but not at all incautious. The recognition and concerns on operational risks in this competitive market are still high. Yet their flexible organization structures enable them to integrate risk management into their business operation natively as we found that options to manage risks are already parts of their day-to-day businesses and more options to mitigate risks are developed at the same time. Concerns of cyclical fluctuation are very less, albeit fully recognized. The findings of this study demonstrate only parts of the risk management variation and focus only on small real estate management companies; further studies on other types of companies or geographical areas will reveal broader understanding of the real estate industry and its market specifics.

The thesis questions--regarding risks and how the small real estate management firms recognize and manage them--have the clear answers directly from the interviewees' explanations. The conclusion from these answers can also reflect the respondents' perspective, saying 'there is no plausible prediction of future, we live for the moment'. The leading indicators may give some clues for an upcoming change or phase of cycles, but nevertheless the indicators themselves are uncertain and based on assumptions of the others. It is logical enough for them to create positive assumptions and envision of future achievement rather than to worry about possible failures deriving from those indicators. Their strength and ongoing active improvements are believed to be their main tools to anticipate and act against any unprecedented events. In addition we explored during our research that the focus companies concern and prefer more to empower themselves to manage rather than to prevent risks to happen. These are the reasons why the predictive tools or systematic risk management strategies are less important to these firms. Contrary to the behavioral studies we reviewed previously in section 2.2, the incidences of individual

risk management we found in these small firms are more sensible and rational: their decisions are based on facts or experiences and conducted for their own benefit.

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Appendix

Language: ☒ English ☐ German **Place**: _____

Date: _____ / _____ /_____ **Time**: _____

Interviewee: Name ☐ Mr ☐ Ms _____

Position ☐ Owner ☐ Executive officer

☐ Other _____

Responsibility ☐ Entrepreneurship ☐ Marketing ☐ Finance ☐ Appraisal

☐ Risk management ☐ Research ☐ Audit

☐ Other _____

Organization: Name _____

Type ☐ Private company ☐ Partnership ☐ Subsidiary ☐ Joint Venture

☐ Other _____

Size No. of employees _____

average annual turnover _____ M CHF

Year of establishment _____

Organization Structure: _____

_____

_____

Investment ☐ Single-family houses_____% ☐ Rented Apartments_____%

☐ Condominiums_____% ☐ Retails_____%

☐ Offices_____% ☐ Public buildings_____%

☐ Infrastructure_____% ☐ Others_____%

Types ☐ New buildings _____% ☐ Renovation_____%

Location ☐ Canton Zurich_____% ☐ Neighboring cantons_____%

☐ Others within Switzerland _____% ☐ Abroad _____%

Scope ☐ Project management ☐ Construction ☐ Design

☐ Development ☐ Operation ☐ Marketing

☐ Advisory ☐ Other _____

Goal (prioritize)

_____Maximize value

_____Minimize costs

_____Reduce risk

_____Increase turnover

_____Reduce liabilities

_____Optimize profit

_____Optimize cash

_____Others_____

Company's risk level: *Low* ① ② ③ ④ ⑤ *High*

Why? _____

_____

_____

Critical risk (prioritize)

_____**Business** (e.g. employment, operating costs, secrecy)

riskiest:_____

_____**Economic** (e.g. demand-supply, competitiveness, trend)

riskiest:_____

_____**Financial** (e.g. inflation, liquidity, credit, interest rate)

riskiest:_____

_____**Physical** (e.g. location, design, materials, construction, damage)

riskiest:_____

_____**Regulatory** (e.g. building codes, taxes, permission)

riskiest:_____

_____**Management** (e.g. contracts, negotiation, communication)

riskiest:_____

_____**Other** (explain:_____)

riskiest:_____

Critical time (prioritize)

_____Land or asset acquisition

_____Design & development

_____Survey & mobilization

_____Marketing

_____Administration

_____Financial evaluation

_____Permission

_____Construction

_____Delivery

_____Others _____

Risk accessibility:

Sources/ channels (prioritize)

_____**Indices**

Frequency: daily weekly monthly quarterly annually _____

Reliability: *Low* ① ② ③ ④ ⑤ *High*

Performance: *Low* ① ② ③ ④ ⑤ *High*

_____**Analysis agencies**

Frequency: daily weekly monthly quarterly annually _____

Reliability: *Low* ① ② ③ ④ ⑤ *High*

Performance: *Low* ① ② ③ ④ ⑤ *High*

_____**Statistic data**

Frequency: daily weekly monthly quarterly annually _____

Reliability: *Low* ① ② ③ ④ ⑤ *High*

Performance: *Low* ① ② ③ ④ ⑤ *High*

_____**News, media**

Frequency: daily weekly monthly quarterly annually _____

Reliability: *Low* ① ② ③ ④ ⑤ *High*

Performance: *Low* ① ② ③ ④ ⑤ *High*

_____**Own research**

Frequency: daily weekly monthly quarterly annually _____

Reliability: *Low* ① ② ③ ④ ⑤ *High*

Performance: *Low* ① ② ③ ④ ⑤ *High*

_____**Personal contacts**

Frequency: daily weekly monthly quarterly annually _____

Reliability: *Low* ① ② ③ ④ ⑤ *High*

Performance: *Low* ① ② ③ ④ ⑤ *High*

_____**Other**

Frequency: daily weekly monthly quarterly annually _____

Reliability: *Low* ① ② ③ ④ ⑤ *High*

Performance: *Low* ① ② ③ ④ ⑤ *High*

Risk assessment (identification, analysis, evaluation):

Tools ☐ Softwares

☐ internally ☐ externally

Frequency: daily weekly monthly quarterly annually _____

Expectation: _____

☐ Models/ formulas

☐ internally ☐ externally

Frequency: daily weekly monthly quarterly annually _____

Expectation: _____

☐ Guidelines/ advisory

☐ internally ☐ externally

Frequency: daily weekly monthly quarterly annually _____

Expectation: _____

☐ Risk assessment products

☐ internally ☐ externally

Frequency: daily weekly monthly quarterly annually _____

Expectation: _____

☐ Other _____

☐ internally ☐ externally

Frequency: daily weekly monthly quarterly annually _____

Expectation: _____

More details: _____

_____

_____

_____

Selection criteria :

☐ Up-to-date ☐ Consistent ☐ Successful

☐ Recommended ☐ Popular

☐ Other _____

Budget proportion: _____%

Past experience: _____

_____

_____

_____

_____

Risk management strategies: (use prioritized answer from page 2)

Business risk

- employment fluctuation [ ]
- operating costs fluctuation [ ]
- secrecy disclosure [ ]
- [ ]

Economic risk [ ]

- property price fluctuation [ ]
- competitiveness [ ]
- trend & expectation [ ]
- [ ]

Financial risk [ ]

- inflation [ ]
- liquidity [ ]
- credit & loan [ ]
- buyer interest rate [ ]
- [ ]

Physical risk [ ]

- location preferences [ ]
- design trend [ ]
- materials & technology [ ]
- construction defects [ ]
- damages/ disasters [ ]
- [ ]

Regulatory risk [ ]

- building codes/ zoning [ ]
- taxes [ ]
- permission [ ]
- [ ]

Management risk [ ]

- contract conditions [ ]
- negotiation & bargaining power [ ]
- communication [ ]
- achievement of targets [ ]
- [ ]

	Strategies
A	Avoidance
B	Adjust, change
C	Cancel
D	Consultation
E	Diversification
F	Due diligence
G	Hedging
H	Insurance
I	Monitoring
J	Margin protection
K	Postponement
L	Refinance
M	Restart
__	_____
__	_____
__	_____

Monitored economic indicators: (prioritize)

	Indicator	Why?	Clues (⬈ ⬌ ⬊)
	Property prices		☐ since
	Interest rate		☐ since
	Inflation rate		☐ since
	Exchange rate		☐ since
	Banks' confidence		☐ since
	Buyers' confidence		☐ since
	Projects in the markets		☐ since
	Vacancy rate		☐ since
	Unemployment		☐ since
	Regulation changes		☐ since
	Trend and expectation		☐ since
			☐ since
			☐ since
			☐ since

Phrase in real estate cycle: ☐ Expand ☐ Peak ☐ Recess ☐ trough

Why? (also use 'Clues' in table above) _____

_____

_____

Company activities:_____

_____

_____

_____

Decision-making structure:

Decision makers: (according to risk management)

☐ Interviewee ☐ Owner ☐ Committee ☐ Executives

☐ Internal consultants ☐ External consultants

☐ Other _____

Overall speed: *Slow* ① ② ③ ④ ⑤ *Fast*

Compare to competitors:

Speed: *Slow* ① ② ③ ④ ⑤ *Fast*

Performance: *Worst* ① ② ③ ④ ⑤ *Best*

Evaluators/ Auditors: (according to risk management)

☐ Interviewee ☐ Owner ☐ Committee ☐ Executives

☐ Internal consultants ☐ External consultants

☐ Other _____

Frequency: weekly monthly quarterly annually _____

Experiences of company's structure changes due to economic indicators:

☐ never ☐ once ☐ seldom ☐ often ☐ _____

How: _____

_____

_____

_____

Sample of real situations: _____

_____

_____

_____

_____

Company performance:

Speed: *Slow* ① ② ③ ④ ⑤ *Fast*

Performance: *Worst* ① ② ③ ④ ⑤ *Best*

Suggestions: _____

_____

_____

_____

_____