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Financial Analysis of Real Estate Enterprises: A Case Study of Vanke

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Abstract

In the analysis of financial performance of China's real estate listing Corporation, we need to pay attention to several items such as advance receivable, inventory reserve and abundant cash flow. Without consideration and adjudgment of the above items, it will be hard to draw correct conclusion for financial analysis of China's real estate industry. Since Vanke ranks 1st in the industry, its case can bring us a microcosm of the industry.

Key words: Advance receivable; Inventory reserve; Abundant cash flow; Financial analysis

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INTRODUCTION

The demographic dividend of China has brought about the rapid development of the real estate industry. Our economic sustainable and rapid development benefits from the real estate industry. Meanwhile, the people have grown intolerant of high housing prices. Have real estate enterprises really accumulated as much wealth as people thought? We need to analyze their financial conditions.

The financial analysis of real estate enterprises is quite different from enterprises in other manufacturing industries. This industry is characteristic of intensive capital and heavy debt. Forward delivery housing business and pre-sale system bring forward large amount advance from customers. Strong market runs up land and real estate reserve. This leads to high inventories in the industry. The policy city and the economic cycle bring real business performance periodically. High taxes constitute a major factor of operating costs. Large amount of money makes financial costs even negative.

1. SOLVENCY ANALYSIS

Debt data of real estate enterprises is often misunderstood. Advance receivable generally accounts for a large proportion of current liabilities in the industry's financial statements (Ma, 2014, p.77). This reflects the domestic real estate pre-sale system and the ability of real estate enterprises to attain cash before houses are constructed. As long as these enterprises have enough inventories, advance receivable will not cause debt risk. Future housing delivery can make the deals. Therefore, in the calculation of debt paying ability, advance receivable can be removed from liability. Correspondingly, the inventory of assets should be reduced part equal to advance receivable multiplied by one minus gross margin. It should be paid attention to that only removing advance receivable will bring wrong result. Therefore, calculation formulae of solvency are amended as follows:

The current ratio = [current assets - AR × (1- gross margin)] / (current liabilities - AR)

The quick ratio = (current assets－inventory) / (current liabilities－advance receivable)

The Cash ratio = cash / (current liabilities－advance receivable)

The asset liability ratio = (liabilities－advance receivable) / [assets - AR × (1- gross margin)]

The Interest coverage ratio = EBIT / interest

For example, in Vanke quarterly statement of March 31, 2014, the advance receivable is 176.7 billion, equal to nearly half of 341.3 current liabilities. Main solvency indicators are calculated as following Table 1.

Table 1
Amendment of Solvency Indicators

Solvency Indicators	Before the amendment	After the amendment
the current ratio	1.34	1.85
the quick ratio	0.34	0.71
the cash ratio	0.11	0.23
the asset liability ratio	0.79	0.63

In the total assets of the real estate business, current assets account for an absolute large proportion. Among them, the inventory is the most important. Inventory reflects the enterprise land reserve. Reserve more, develop stronger in the future. This mode is quite different from unfavorable inventory backlog in the general enterprise. Real estate inventories mainly consist of development costs and products. Only development products and development costs with pre-sale conditions can be realized in the short term. Therefore, development costs without pre-sale conditions should be removed from inventory. Enterprises acquiring land reserve with high price need to set aside sufficient provision for impairment, so as to reflect the true ability of realization. Given the large proportion of inventory, the realization of inventory can be examined with the rate of inventory turnover. The higher is inventory turnover rate, the more liquid is the inventory.

For example, the inventory balance of Vanke in March 31, 2014 is 340.5 billion, accounting for 74% of current liabilities and 69% of total assets. The inventory turnover rate of 0.34 in December 31, 2013 means three years to sell the stock.

If the possibility for some advance payment to withdraw is nearly zero, it should be eliminated from the current assets. In addition, the investment real estate can be used as a source to pay short-term debt. In the calculation of interest coverage ratio, the non recurring profit and loss should be deducted. Some interest cost is capitalized as inventory cost.

2. PROFITABILITY ANALYSIS

In the impression of people, real estate enterprises can be considered China's most profitable industry. The Forbes list of characters together appear in the real estate industry.

Sales income is the foundation of corporate profitability, indicating the enterprise scale and marketing ability. Considering Vanke's nearly ten years of operating income, the speed of scale expansion is amazing. Business income expand tenfold during the last eight years. Share holders who acquired Vanke years ago have benefited a lot from their early holdings.

Table 2
The Change of Vanke's Operating Income

Index	2013	2012	2011	2010	2009	2008	2007	2006	2005
Operating income (billion yuan)	135.4	103.1	71.8	50.7	48.9	41	35.5	17.8	10.6

Period costs reflect the ability of enterprises to control costs. In the past six years, the Vanke's annual operating expenses, management fees and finance charges dropped 0.66%~4.54%. Period expense ratio decreased year by year, indicating the annual fee is effectively controlled. It is notable that although the debt of real estate enterprises is high, the financial charges increased disproportionately or even was negative. The reason is that many of the borrowing costs are capitalized. Only a few parts are credited to the financial costs.

The tax burden of the real estate industry is heavy. It significantly affects the profit level. It can be seen from Table 3, Vanke's tax constitutes an important costs. Business taxes, surcharges and income tax change accounted for the proportion of 13%~17% of sales revenue and reduced Vanke's profitability. But Vanke's revenue growth exceeded tax growth, reflecting its scale effect.

Table 3
Vanke's Operating Income and Cost (unit: billion yuan)

Index	2013	2012	2011	2010
Sales income	135.4	103.1	71.8	50.7
Sales cost	92.8	65.4	43.2	30.1
Business taxes, surcharges and income tax	17.5	16.3	12	8.7

The profitability indicators generally include the rate of return on net assets, rate of return on total assets, sales margin, sales profit ratio. In the calculation of net profit, it is needed to eliminate the influence of non recurring gains and losses. It is seen from Table 4, Vanke's sales gross margin and net profit on sales decline significantly. The fierce market competition makes enterprise try hard to control costs to make up for the decline in profit margins. Rate of return on net assets increased year by year. It is good news for the shareholders. Vanke's rate of return on total assets is lower than the interest rate of time deposits. This is mainly caused by the high inventory reserve which leads asset base large. Rate of return on net assets is high. Meanwhile, the rate of return on total assets is low. It indicates that Vanke makes full use of financial leverage.

Table 4
Vanke 's Profitability Indicators

Profitability indicators	2013	2012	2011	2010	2009	2008	2007	2006
Sales margin (%)	22.95	25.97	28.94	29.61	22.02	27.94	30.41	28.42
Sales profit ratio (%)	11.16	12.17	13.41	14.36	10.90	9.84	13.64	12.07
Rate of return on net assets (%)	19.65	19.60	18.06	15.79	14	12.73	16.36	--
Rate of return on total assets (%)	3.82	4.13	3.92	4.10	4.67	3.89	5.31	4.76

Real estate is a capital intensive industry. Cash flow acquisition is more important than net profit taking. A dimension of profitability analysis is the analysis of profit quality, namely the analysis of the ability of the enterprise to obtain cash (Feng & Yuan, 2014, p.51). Related indicators include pre collection and sales income ratio, operating cash flow and sales income ratio, sales cash ratio, asset cash ratio. Sales cash rate is net cash flow from operating activities and sales income ratio, reflecting the acquisition of net operating cash flow with 1 yuan sales income. Asset cash rate is net cash flow from operating activities and total assets ratio, reflecting the acquisition of net operating cash flow with 1 yuan asset. The higher the four ratios are, the stronger the ability of the enterprise to obtain cash is.

For example, Vanke's rate of return on net assets in the first quarter of 2014 was 1.6% (16.4/[(1017+1054)/2]). In the face of such a low number, people may feel confused that the profitability of Vanker was so weak which ranked first in the real estate business. Let us look at the 2013 quarterly net assets yield data of Vanke: by the end of the first quarter of 2.46%, as of the second quarter of 6.81%, as of the third quarter of 8.96%, as of the fourth quarter 19.65%. With the reference of Vanke's data in the past, it can be found that business seasonal characteristics of Vanke is very obvious. Considering profit, the first and third quarter is off-season, the forth quarter is busy season. Therefore, to study the rate of return on net assets real estate enterprises, it had better study in a full year. Otherwise, the whole picture and rhythm of earnings can not be seen.

From the following Vanke's profit quality indicators, the seasonal factors are still obvious. First quarter is most intensive in collecting cash. Advance receivable and operating cash flow are far more than sales revenue. However, net operating cash flow did not seem to present the corresponding trend. It was negative in most of the time, including in the first quarter. Thus caused that sales cash flow ratio is negative. In general, when the market environment is good, the developers' rolling investment will result in negative index (Liu, 2014, p.172). The reason causing negative net operating cash flow includes basic procurement costs, labor costs, taxes and other expenses.

Table 5
Indicators of Profit Quality

Indicators of profit quality	14-03-31	13-12-31	13-09-31	13-06-31	13-03-31
Advance receivable/ sales income	18.61	1.15	2.76	3.85	10.75
Operating cash flow/sales income	3.06	1.13	1.66	1.22	2.34
Net operating cash flow /sales income	-0.59	0.01	-0.19	-0.24	-0.17
Net operating cash flow /total assets	-0.01	0.003	-0.026	-0.023	-0.006

3. OPERATIONAL CAPACITY ANALYSIS

The operating capacity analysis aims to evaluate the management efficiency of enterprises through analyzing assets turnover rates. The faster is the turnover, the higher is the business efficiency, indicating that the assets go into the business process faster and revenue and profit is generated quicker. Operational capability analysis of real estate industry mainly depends on asset turnover ratio, accounts receivable turnover rate, inventory turnover rate and fixed assets turnover rate. Especially, inventory, accounting for the maximum absolute value of total assets, is an usual focus among indicators. In general, the higher is the inventory turnover rate, the shorter is the project development cycle, and more likely it is for companies to get higher profit.

The real estate stock is very sensitive to business activities of enterprises (Chen, 2014, p.132). Too small inventory means that the real estate reserve is shortage and unable to cope with the booming real estate market. Excessive inventory is often associated with slow turnover, while slow turnover will cause a drag on performance as well as inventory decline.

For Vanke, inventory is the most important assets. Its management is critical for the enterprise. Due to expanding the business scale and faster growth of inventory than that of sales, inventory turnover rate has decreased. However, the proportion of develop products and finished products has decreased while the proportion of construction of development products has risen. It illustrates that the inventory structure become reasonable.

Vanke's accounts receivable accounts for a small proportion in total assets. Its turnover time has declined year by year. The fact can be explained as strong ability to collect money, strong position in business and the booming real estate market. Because of low proportion, accounts receivable days are far unimportant as much as inventory turnover days.

Total assets turnover rate decreased year by year, which is mainly caused by the decrease of inventory turnover rate. It indicated that Vanke need to strengthen the inventory management and accelerate the project development.

Table 6
Vanke's Operational Indicators

Indicators	2013	2012	2011	2010	2009	2008
Inventory turnover days	1136	--	1423	1338	918	1098
Accounts receivable turnover day	6.6	5.94	7.8	8.19	6.02	7.85
Total assets turnover rate	0.32	0.31	0.28	0.29	0.38	0.37

4. GROWTH ANALYSIS

Growth analysis index mainly includes the growth rate of sales income, net profit growth rate, growth rate of net assets and growth rate of total assets.

Sales income growth rate = (sales income of present year – sales income of last year) / sales income of last year×100%

Net profit growth rate = (net profit of present year – net profit of last year) / net profit of last year×100%

Growth rate of net assets = (net assets of present year – net assets of last year) / net assets of last year net assets ×100%

Growth rate of total assets = (total assets of present year – total assets of last year) / total assets of last year ×100%

In the calculation of net asset growth rate and total assets growth rate, it is better to make adjustment to deduct accounts receivable uncollected more than three years, deferred assets, net loss of property waiting to deal with, prepaid expenses which will not bring cash flow in the future.

Table 7
Vanke's Growth Indicators

Indicators	2013	2012	2011	2010	2009	2008	2007
Sales income growth rate (%)	31.33	43.65	41.54	3.75	19.25	15.38	99.05
Net profit growth rate (%)	20.46	30.40	32.15	36.65	32.15	-16.74	124.83
Growth rate of net assets (%)	28.38	21.09	24.18	20.26	17.01	14.45	99.41
Growth rate of total assets (%)	26.50	27.89	37.38	56.69	15.44	19.08	106.39

Vanke achieved rapid sales growth of nearly 100% in 2007. its growth rate declined to less than 20% in 2008. In 2011 to 2013, its growth rate reached 30~40%. Net profit growth rate reached a staggering 124.83%. The figure went down to -16.74% in 2008, which is the only negative growth in the last 7 years. Net profit growth rate in 2009 to 2012 is always more than 30%, regardless of sales revenue growth lower or higher than 30%. These figure indicated that the cost control was great. Net assets had similar growth trend as sales income. Except for the growth rate of 99.41% in 2007, net assets maintained a strong growth, rising from 14.45% in 2008 to 28.38% in 2013. Net assets grew from 17 billion in 2006 to 105.4 billion in 2013. The scale became nearly tenfold during these years. Total assets growth rate also increased considerably, nearly all above 20% in these years. Therefore, it is not difficult to understand how Vanke grew from a company with 50 billion total assets to an ultra large real estate enterprise with nearly 500 billion.

5. SHARE INDEX ANALYSIS

Some real estate enterprises have plenty of cash flow (Huang, 2014, p.29). In determining the stock purchase price, share price should minus cash flow to get the actual amount paid for the stock. Indicators such as share price earnings ratio, share price and book value ratio and stock profitability index should be recalculated (Yang, 2014, p.9). For example, Vanke had a money balance of 44.365 billion yuan and 11 billion shares outstanding in December 31, 2013. Therefore, 4 yuan per share of money can be deducted from the stock price. Vanke had earnings per share of 1.37 yuan during 2013, net assets of 7 yuan and the market value of 8 yuan at the end of 2013. After deducting 4 yuan per share, share price earnings ratio became 2.9, share price and book value ratio became 0.57 times and stock profitability index became 10%. These data meant that the investment can recover the cost immediately and Vanke's stock has great investment value. This algorithm requires the enterprise has stable cash flow.

CONCLUSION

In the analysis of financial performance of China's real estate listing Corporation, the following points are needed to pay attention to:

(a) The analysis of debt paying ability requires to eliminate advance receivable. Otherwise, it is misunderstood that the debt paying of the whole industry is a big problem when the general high debt levels of real estate enterprises are found. Of course, even eliminating the influence of advance receivable, many real estate enterprises still have high debt level.

(b) The real estate is a capital intensive industry. Pre collection and sales cash flow is often greater than sales revenue. However, due to rolling development model, the net operating cash flow is often negative, which is rare in other industries.

(c) Inventory is very large in the real estate industry. Large number means that reserve is enough especially for a booming market. The inventory turnover rate maybe low at the time. More provision of inventory need to be accrued. Low inventories may bring higher inventory turnover rate, but also indicates inventory shortage in a booming market. For real estate enterprises, inventory turnover rate is not always better when it is bigger. Because that inventory accounts for a high proportion of total assets, the quick ratio of real estate enterprises is generally lower than 1.

(d) Real estate enterprises usually have abundant cash flow. Some of them can even compete with banks in money reserve. In the calculation of share index, the money should be deducted from investment costs.

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