

# STRATEGIC RISK MANAGEMENT FOR ENHANCED CORPORATE GOVERNANCE

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## Abstract

The purpose of this research is to develop and apply risk management procedures to enhance corporate governance, using examples of Chinese company investments. Strategy and risk should be considered together by management and boards of directors as they need to know what risks are embedded in potential or approved strategies. Strategy and risk are linked and may be viewed as two sides of the same coin. One of the fastest ways to massive value destruction is to undertake a strategy without a thorough consideration of the related risks. Well-known financial fraud prediction models and ratios are applied to an ongoing, possible fraudulent Chinese company. They generated numerous red flags for possible fraudulent financial reporting, using one and two standard deviation measurements for risk assessment. This paper finds potential international equity and debt investment destruction of \$12.9 billion for this one company and \$34.5 billion when this company's investment losses are combined with three other ongoing possible Chinese fraud companies. In summary, a risk management approach for enhanced corporate governance is developed and applied to the strategy of international investing. A case study is used to demonstrate both a macro-economic risk assessment of an investment target country and a micro-economic risk assessment of an investment target company, using fraud models and ratios.

**Keywords:** Risk Management, International Investing Strategy, Corporate Governance

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## 1. INTRODUCTION

Strategy and risk should be considered together as management and boards of directors need to know what risks are embedded in specific strategies. Boards of directors have an important and critical role to play in overseeing strategic and risk issues since businesses take risks for possible rewards. Management and boards of directors have to decide strategically what the proper level of risk is for a company and what the company's appetite for risk is (Vollmer, 2015). Strategy and risk are linked and may be viewed as two sides of the same coin. One of the fastest ways to massive value destruction is to undertake a strategy without a thorough consideration of the related risks. For example, The U.S. Securities and Exchange Commission (SEC) claimed that bad risk management by U.S. companies cost the United States \$13 trillion from the financial crisis in 2007 through 2009. The SEC attempted to alleviate this problem in March 2010 by mandating board risk oversight and related disclosures for enterprise risk management of U.S. publicly-held companies (Walker et.al, 2015). There is also the international ISO 31000 Risk Management standard which has processes for risk identification, risk analysis, and risk evaluation (McNally and Tophoff, 2015).

The Financial Crisis Inquiry Commission (Commission) was appointed by the U.S. government to investigate the causes of the financial crisis of 2007-2010. Citing dramatic breakdowns in risk management, the Commission provided the following examples. Citigroup executives conceded

that they paid little attention to investment risks in Citi's mortgage-backed securities. American International Group (AIG) executives were blind to their \$79 billion risk exposure in AIG's credit-default swaps. Merrill Lynch managers were surprised when seemingly secure mortgage investments suddenly suffered huge losses. Such investment speculations were aided by a giant "shadow banking system" in which U.S. banks relied heavily on short-term debt, often undisclosed. For example, Lehman Brothers hid \$50 billion of short-term loans off its books (Dutta et. al, 2010). The Commission concluded: "when the housing and mortgage markets cratered, the lack of transparency, the extraordinary debt loads, the short-term loans, and the risky assets all came home to roost" (Chan, 2011).

The tipping point for the financial crisis was generally acknowledged to be the Fall, 2008 bankruptcy of Lehman Brothers. Risk management was very weak at Lehman Brothers as indicated by its ineffective risk management committee (Grove and Patelli, 2013). Lehman Brothers' risk committee had only two meetings in 2006 and 2007 before the company went bankrupt in 2008. The chairman of the risk management committee was an 80 year-old retired banker who had little experience or competence with the bank's newer financial instruments, such as credit default swaps and mortgage backed securities. Such competence issues also existed for the other four members of this risk management committee: a 73 year-old, retired chairman of IBM, a 77 year-old, retired Broadway producer, a 60 year-old, retired rear admiral of the U.S. Navy, and a 50 year-old, former

CEO of a Spanish language television network. A similar competence issue was raised about AIG's Board which included several heavyweight diplomats and admirals. Richard Breeden, former head of the SEC, observed: "AIG, as far as I know, didn't own any aircraft carriers and didn't have a seat in the United Nations" (Das, 2011).

A corporate government specialist concluded: "these boards had no idea about the risks these firms were taking on and relied on management to tell them" (Barr, 2008). Risk management at the major U.S. banks appeared to be very poor and contributed significantly to the U.S. financial crisis. The July 2010 Federal Financial Reform (Dodd-Frank) Act now requires risk committees for boards of financial institutions. Thus, there should be a mix of skills for board members, such as industry knowledge, experience, financial accounting expertise (required by the U.S. Sarbanes-Oxley Act), and risk management expertise (required by the U.S. Dodd-Frank Act).

There should be effective monitoring of risk without dependence on any corporate bailout financing which happened with the U.S. Taxpayers Assistance Relief Act of \$700 billion in 2009 for the 19 largest U.S. banks. Warren Buffett commented on risk control: "I believe a CEO must not delegate risk control. It's simply too important. If Berkshire Hathaway ever gets in trouble, it will be my fault. It will not be because of misjudgments made by a Risk Committee or a Chief Risk Officer. In my view, a board of directors of a huge financial institution is derelict if it does not insist that its CEO bear full responsibility for risk control. If he's incapable of handling that job, he should look for other employment. And if he fails at it - with the government thereupon required to step in with funds or guarantees - the financial consequences for him and his board should be severe" (Buffett, 2009).

Recent examples of faulty risk management for investing include JPMorgan Chase which had a \$6 billion trading loss by the company's international investment office, i.e., the "London Whale" loss, and the sudden liquidation of UBS's \$500 million Willow Fund, a closed-end investment fund. The UBS portfolio manager changed his investment strategy from distressed corporate debt instruments to international derivatives with risky bets against the debt of European nations. The fund's independent directors did nothing and investors learned the hard way that a fund's directors cannot be relied upon to protect investors from a fund manager's risky bets and, thus, board directors often disappoint by what they do not do, especially concerning risk management (Morgenson, 2013). Another example of the dangers of a high risk/high reward investing strategy occurred in December, 2015. The Third Avenue Focused Credit Fund, which invested in junk bonds and distressed debt, announced that it will liquidate as its assets decreased from \$2.4 billion to \$789 million just in 2015. Consequently, it has blocked its investors from withdrawing their money (Damato, Maxey, and Wirz, 2015). This paper develops and applies risk management procedures to the strategy of international investing with Chinese company examples.

## 2. INTERNATIONAL INVESTMENT STRATEGY AND RISK FOR CHINA OPPORTUNITIES

An investment strategy in Chinese companies has looked attractive since the Chinese economy had double-digit growth in the last decade and there is a potential market of 1.3 billion consumers. Since international investors have restricted access to Chinese stock markets, there were three waves of Chinese companies listing on U.S. stock exchanges in the last decade. The first two waves were the largest and well know Chinese companies, many of which were state owned enterprises. They were generally successful, as opposed to the third wave of about 500 small, private companies in the 2005-2010 period. 100 were delisted from U.S. stock exchanges in 2011-2012, destroying \$40 billion in stock market value (McKinsey & Company, 2013).

International private equity funds and other international investors have still been investing in Chinese company stocks and bonds. Recently, large international mutual funds have been searching for higher yields and have been turning to international bonds issued by Chinese companies. They have been attracted to the higher interest rates being offered by Chinese companies. Chinese bonds recently offered a 9.36% yield, compared to 7.32% for Asian high-yield bonds. The current yield for U.S. bonds is 5.88% and 3.93% for bonds in the European Union (Li, 2015).

Since strategy and risk should be considered together in order to know what risks are embedded in potential or approved strategies, one has to ask: was the risk of international investing in Chinese companies really considered by such sophisticated investors, management, and boards of directors? For example, there is a valid reason that high yield bonds are called junk bonds! A "two-pronged" risk management assessment is advocated here for the strategy of any international investing, similar to the approach of private equity funds which have about \$4 trillion globally to invest (Miller, 2015). First, the macro-economic risk of an overall economy (or industry sector) is investigated (China in this paper, especially with the issue of Chinese ghost cities helping to drive its recent double digit, economic growth rates). Accordingly, before any specific company investments should be considered, one should consider how the overall economy (or industry sector) is performing. Second, the micro-economic risk of investing in specific companies is assessed. A specific example of stock and bond investments in a Chinese property developer, Kaisa, is analyzed in this paper, as this company is in the same industry as the Chinese ghost city developers.

## 3. MACRO-ECONOMIC RISK: CHINESE ECONOMY AND GHOST CITIES

"China is the only country in the world that knows its GDP growth rate for the upcoming year on the first day of the year," observed Jim Chanos, the founder of a hedge fund now worth \$3 billion after being one of the first analysts to short Enron, Tyco, and financial companies involved in the 2008 financial crisis. He commented: "In China's GDP calculations, they don't look at final sales, they look at production. So a condo being built but not sold contributes to GDP" (Tymkiw, 2012). Chanos has

been bearish on China since 2009 when he and his team at his firm, Kynikos Associates, which has over \$1 billion under global investment management, were analyzing commodity prices and the stocks of large mining companies. Chanos said: "Everything we did in our microwork on commodities kept leading us back to China's property market. China's construction boom was driving demand for nearly every basic material. By 2009 in the midst of a global recession, China was building almost 30 billion square feet of new residential and office construction. There are 1.3 billion people in China. In terms of new office space alone, that amounts to about a five-by-five-foot cubicle for every man, woman, and child in the country. That's when it dawned on me that China was embarking on something unprecedented" (Olster, 2010). In 2011, an Australian business reporter visited some of China's most infamous ghost cities and malls and wrote a report that broke this ghost city story internationally (Badkar, 2013).

Similarly, a "60 Minutes" U.S. television report in 2013 observed: "We discovered that the most populated nation on Earth is building houses, districts and cities with no one in them...desolate condos and vacant subdivisions uninhabited for miles and miles and miles and miles" (Belvedere, 2013). This same "60 Minutes" report interviewed the CEO of the largest Chinese real estate developer who said many developers are deep in debt, projects are being abandoned, and there could be a nightmare scenario like America's housing crash but worse (Lubin and Badkar, 2013). A 2014 report estimated that there were 11 major ghost cities in China but the Chinese government has told a Chinese reporter to "quit being a troublemaker" and cease doing ghost city investigations (Duffy, 2014).

In China, fixed asset investment accounted for more than 50% of China's overall Gross Domestic Product (GDP) in 2014 with just the property market accounting for about 20% of GDP (Liang, 2014). No other major economy even comes close. Of the Chinese fixed investment, about one-quarter is attributable to new real estate investment, and new property sales accounted for 14% of GDP in 2009. Bearish investors on China, like Chanos, question why there are so many apartments and villas that have been bought and paid for but remain empty. Vacancy rates for homes constructed in the past five years are at 15% but are projected to rise to over 20% in 2016-2017 (Badkar, 2014)

This ghost city phenomenon in China is facilitated by how local governments are forced to finance themselves. They are in a perpetual cash squeeze since they have to give the majority of their tax revenue to the central government which often forces them to build infrastructure projects without any central funding. Since the Communist Party owns all the land in China, local governments often seize land from their poorest residents for a small payment and then sell the land to developers for a much larger price which increases their GDP figures and chances of promotion within the Communist Party (Badkar, 2014).

Full-year 2014 GDP growth for the Chinese economy was only 7.4%, the slowest pace in over two decades. The real estate market has slumped, dragging down the rest of the Chinese economy (Barboza, 2015). United Bank of Switzerland (UBS,

2015) predicted that investment growth will not turn around and Chinese GDP growth will only be 7% in 2015. UBS recommended that investors stay selective in the Chinese property sectors and focus on developers with a strong focus on tier-1 and tier-2 cities (the largest cities) because high inventory pressure still persists in tier-3 and tier-4 cities (where the ghost cities exist).

#### 4. MICRO-ECONOMIC RISK: KAISA, A CHINESE PROPERTY DEVELOPER

The following micro-economic risk analysis focuses upon a specific company, Kaisa, a Chinese property developer, which had raised over \$3.2 billion of capital by 2012. Kaisa is located in Shenzhen, China but incorporated with limited liability in the Cayman Islands. In 2007, Credit Suisse brokered a \$300 million equity investment deal with two international private equity funds, the Carlyle Group and the Temasek Holdings. In 2009, Kaisa raised \$450 million with an initial public offering (IPO) on the Hong Kong stock exchange, led by the Bank of China International and Credit Suisse with an unqualified audit opinion by PWC Hong Kong, its ongoing auditor. From 2009-2012, Kaisa raised \$2.5 billion in debt investments from over two dozen foreign fund investors, including BlackRock, Fidelity Investments, Lion Global Investors, and JPMorgan Asset Management (Barboza, 2015). These global bond offerings were led by Citigroup, JPMorgan Chase and Credit Suisse. There should have been many due diligence investigations of Kaisa by these investment banks, auditors, and international investors: private equity funds, IPO stock investors, and mutual fund bond investors.

However, by April 2015, Kaisa was on the verge of bankruptcy and all these investments were in danger of being lost. A lawyer representing some Kaisa bondholders commented: "Many investors are shocked at what happened. It's troubling that in a market as sophisticated as this, no one knew what was going on" (Barboza, 2015). One has to ask: where was the risk management analysis for all these international investment strategies?

A key contribution to risk management analysis could have been a Moody's Investment Service Report, "Red Flags for Emerging-Market Companies: A Focus on China," published July 11, 2011 (Moody's, 2011). It analyzed 20 potential red flags, grouped into five categories, for non-financial Chinese companies issuing corporate debt: 1) Possible weaknesses in corporate governance, 2) Riskier or more opaque business models, 3) Fast-growing-business strategies, 4) Poor quality of earnings or cash flow, and 5) Concerns over auditors and quality of financial statements.

Chinese authorities are sensitive to criticism of corporate governance and these other issues, concerning these Chinese companies, which could reduce their appeal for offshore debt investors. Moody's was fined \$3 million by the government watchdog agency for Hong Kong markets in 2011 after this report was published. Kaisa raised 7 of Moody's 20 red flags (35%), compared to the average of 5.7 red flags (28.5%) for the 26 Chinese property developers in Moody's report (Whitfield, 2015).

A further risk for offshore debt investors is a lack of investment security, due to Chinese

restrictions on foreign currency borrowing which prevent private companies from borrowing directly from foreigners. To work around this restriction, Chinese companies create offshore subsidiaries that issue debt, then invest these funds in their domestic parent as equity. Thus, offshore bondholders are subordinate to onshore lenders, trade creditors, and potentially mainland equity holders. They would also be excluded from any onshore bankruptcy proceedings. They may be able to take control of an offshore holding company but they have no direct security over the underlying onshore assets. Accordingly in early 2015, Deloitte Touche Tohmatsu warned Kaisa's offshore bondholders that they would be effectively wiped out if Kaisa was forced into liquidation (Whitfield, 2015).

## 5. RISK MANAGEMENT OVERVIEW AND GUIDELINES

A definition of risk management is provided by Coleman (2011): "Risk management is the art of using lessons from the past to mitigate misfortune and exploit future opportunities—in other words, the art of avoiding the stupid mistakes of yesterday while recognizing that nature can always create new ways for things to go wrong. Thus, risk management is about much more than numbers; it is the art of using numbers and quantitative tools to actually manage risk. Risk is a central, maybe the central, component of managing a financial organization." In assessing the overall risk of a company, Coleman focused on the variability of profits and losses (P&L) which provides a risk framework for levels of the firm from individual managers up through the board of directors if calculated and reported on a consistent basis. He observed that managing risk requires being comfortable with uncertainty and randomness and thinking probabilistically. He argued that such an approach requires quantitative analysis for understanding and dealing with uncertainty, especially to inform, guide, and correct intuition. Thus, risk managers and boards of directors' risk committees should be asking how good the quantitative tools are and how useful the quantitative analysis is, rather than focusing upon intuition (Coleman, 2011).

Coleman further argued that financial risk is all about money: profit and loss (P&L) and the variability of P&L. Future outcomes can be summarized by P&L and the uncertainty in P&L can be described by the distribution or density function which can map many possible outcomes of the profits or losses. For managing risk, the major contribution of a P&L distribution is an understanding of how variable the P&L can be. "When the P&L distribution is known, i.e., the possibilities of gains versus losses, when the generation of this distribution is known and what causes the gains and losses, then, virtually everything about financial risk is understood" (Coleman, 2011). The most important distribution aspect is the variability or the spread of the distribution. A common, well-known measure used to summarize the variability or the dispersion of the distribution is volatility, also known as the standard deviation. For most normal, well-behaved distributions, one standard deviation above and

below the expected outcome indicates the result will be outside the range approximately 32% of the time. Two standard deviations above and below the expected outcome indicates the result will be outside the range approximately 5% of the time (Coleman, 2012).

One of the major goals of risk management is the avoidance of a significant surprise or an outcome other than what is expected. While surprises do happen, it is a large surprise, whether good or bad, that provides risk management problems. If the standard deviation of the distribution is known, then management and boards of directors' risk committees can predict the range of the outcomes with the best and worst possible values for both 68% and 95% confidence ranges. Knowing the end points of these ranges shows how good or how bad the outcome can be. An outcome outside of the 68% confidence range would be a surprise that could happen 32% of the time. An outcome outside of the 95% confidence range can only happen 5% of the time, but these surprises will be much better, or much worse, than the expected outcome. Management and boards of directors must know how much better or how much worse the outcome can be in order to plan responses to these large surprises.

Managing risk should be a core strategic competency for any international company as Coleman (2011) emphasized: "The ability to effectively manage risk is the single most important characteristic separating financial firms that are successful and survive over the long run from firms that are not successful. At successful firms, managing risk always has been and continues to be the responsibility of managers—from the board through the CEO and down to individual line managers." Volatility risk measures are backward looking, based upon historical performances but as Coleman (2011) observed: "Understanding the past is terribly important because understanding current exposures, and how they would have behaved in the past, is the first step toward managing the future." Since risk measurement techniques require expertise and experience to use properly, managers and boards of directors have a responsibility to understand their complex businesses and investments. Risk management techniques can try to put estimates around, but cannot properly represent, extreme or "black swan" surprise events. To enhance corporate governance, managers and boards of directors have to learn to live with such uncertainty and avoid a false sense of security.

## 6. RISK MANAGEMENT PROCEDURES

Coleman's risk focus is on the variability of profits and losses from the income statement. However, this narrow profitability focus is expanded in this paper to include a liquidity focus with the variability of operating cash flows from the statement of cash flows and a solvency focus with the variability of cash from the balance sheet. Thus, all three major financial statements can contribute to risk management procedures. These three initial risk management focuses are each expanded to assess additional volatility as follows. The net income profitability focus is expanded to consider the profit margin ratio. The operating cash flow liquidity focus is expanded to consider the quality of

earnings ratio and the quality of revenues ratio. The quality of earnings is computed by dividing operating cash flows by net income. The quality of revenues is computed by dividing the cash collected from customers by revenues. The cutoff for a good result for both ratios is one or better, assessing whether accountants' accrual measures are being converted into cash (Schilit, 2003). These cutoffs follow the observation of many investment bankers: GAAP is CRAP, CASH is KING (Miller, 2015).

The cash solvency focus is expanded to consider the fixed charge coverage ratio, the Sloan accrual ratio, and the Altman bankruptcy model. The numerator in the fixed charge coverage ratio emphasizes free cash flow: Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) less capital expenditures less cash income taxes paid. The denominator emphasizes debt service: interest payments and debt repayments. The cutoff for adequate debt service is 1.15 per a private equity partner who looks at over one hundred possible acquisitions each year (Miller, 2015). Often, a typical bank loan covenant for such debt service is a more conservative 2.0. The Sloan accrual ratio numerator is net income less free cash flows which is computed as operating cash flows less capital expenditures. The Sloan denominator is average total assets and the cutoff is 0.10 where a result over this cutoff is a red flag (Robinson, 2007). The Altman bankruptcy model has the following overall cutoffs: below 1.8 is a bankruptcy prediction; 1.8 to 3.0 is a possible bankruptcy prediction and over 3.0 is a non-bankruptcy prediction (Altman and Hotchkiss, 2005).

An additional focus for possible earnings management or fraudulent financial reporting which can distort risk management procedures is still needed. A 2012 survey of 170 CFOs of U.S. public companies indicated a 20% possibility of earnings management up to a possible 10% distortion of earnings per share (Whitehouse, 2012). A 2013 McKinsey & Company report found that 100 small

Chinese companies had been delisted from U.S. stock exchanges in 2011-2012 and destroyed over \$40 billion in stock market value. Thus, two fraudulent financial reporting prediction models are also advocated for risk management. An "old fraud model" (Beneish, 1999) analyzed SEC investigations of U.S. public companies from 1982-1992 and has a -1.99 cutoff where a larger result is a red flag for fraudulent financial reporting (smaller negative or positive numbers). A "new fraud model" (Dechow et. al., 2007) analyzed SEC investigations from 1982-2006 and has a 1.00 cutoff where a larger result is also a fraud prediction.

## 7. RISK MANAGEMENT APPLICATION FOR CHINESE INVESTMENT STRATEGY

These eleven numbers, ratios, and models, advocated in this paper for risk management analyses, are now applied to Kaisa, a Chinese property developer, to demonstrate a micro-economic risk methodology. Eight years of income statements and balance sheets were available for Kaisa from 2006 to 2013. The 2014 financial statements have not yet been filed as of December 2015, pending resolution of negotiations with debt investors since a \$23 million interest payment was missed in January 2015 (Law, 2015). Only six years of statements of cash flows were available from 2008-2013 and no common stock prices existed before the 2009 IPO. Thus, there were only five years of data to run various fraud models or ratios or the bankruptcy model. The volatility of all eleven numbers, ratios, and models are provided in Table 1 for risk management of Kaisa. However, the only three Table 1 absolute numbers (net income, operating cash flows, and cash) were converted from millions of Chinese renminbi to millions of U.S. dollars at an average foreign exchange rate of \$1 for 6 renminbi for ease of discussion.

**Table 1.** Risk Management Kaisa Applications

Metric	Average	Red Flag? # of Years	Standard Deviation Ranges			
			One: 68%*		Two: 95%	
Net Income	261		53	468	-146	668
				3 of 8		
Profit Margin	17.1		13.7	20.5	10.4	23.7
				3 of 7		
Operating Cash Flow	-185		-493	123	-788	418
				2 of 6		
Quality of Earnings	-0.42	Yes	-1.47	0.62	-2.47	1.63
		5 of 5		1 of 5		
Quality of Revenues	0.98	Yes	0.78	1.19	0.59	1.38
		4 of 5		2 of 5		
Cash	541		181	900	-164	1255
				3 of 8		
Fixed Charge Cover	0.59	Yes	-0.20	1.38	-0.96	2.14
		7 of 8		2 of 8		
Sloan Accrual	0.09	No	0.04	0.15	-0.02	0.21
		3 of 5		1 of 5		
Altman Bankruptcy	0.92	Yes	-0.04	1.88	-0.96	2.80
		4 of 5		1 of 5		
Old Fraud Model	-0.94	Yes	-2.61	0.73	-4.22	2.34
		4 of 5		2 of 5		
New Fraud Model	1.84	Yes	1.26	2.42	0.70	2.98
		5 of 5		2 of 5		

\*Number of years outside range

Kaisa's average net income of \$261 million over eight years had a 68% confidence range of \$53 million to \$468 million over the 8 years. Kaisa had an average profit margin of 17.1%, after eliminating the 46.7% outlier in 2010. There was a 68% confidence range of 13.7% to 20.5% and a 95% confidence range of 10.4% to 23.7%. Such superior profit margins should be investigated with competitor comparisons to see "if the story may be too good to be true," especially the 46.7% outlier, as recommended by various short sellers (Left, 2011 and Bases et. al, 2011). Kaisa's average operating cash flow over the six available years was a negative \$185 million with a 68% confidence range of a negative \$493 million to a positive \$123 million. Accordingly, this poor performance led to an average quality of earnings of a negative 0.42 with each of the five available years showing a red flag below the acceptable cutoff of a positive 1.0. Since the 0.98 average quality of revenues and four of the five years were just below the acceptable 1.0 cutoff, such possible red flags could be ignored here.

Kaisa's average cash balance over the eight available years was \$541 million with a 68% confidence range of \$181 million to \$900 million. The two standard deviation confidence range (for a 95% probability) was a negative \$164 million to a positive \$1,255 million; so, a manager or board member would expect that 5% of the time, the cash balance would be outside this range and it was on June 30, 2014. Cash was reported as \$1,383 million which was above the upper limit of \$1,255 million with a 2.5% probability of being correct. The small possibility was validated by cash being only \$306 million on March 1, 2015 (Yeoh, 2015) so what happened to \$1,077 million or \$1.077 billion cash in less than nine months? A huge red flag for risk management is indicated, similar to both Parmalat and Satyam where over \$1 billion in cash at each company was also missing in their last set of reported financial statements before the frauds were discovered. Parmalat had made up a major Bank of America cash account and Satyam had falsified cash confirmations.

The fixed charge coverage ratio had a 0.59 average with seven of the eight years showing red flags below the cutoff of 1.15. The eighth year was below the more conservative cutoff of 2.0. The average Sloan accrual ratio of 0.09 (just below the 0.10 cutoff) did not show red flags in three of the five years. However, the Altman bankruptcy model had an average score of 0.92 with bankruptcy predictions or red flags in four of the five years in the 68% confidence range of -0.04 to 1.88. The fifth year fell into the bankruptcy uncertainty prediction range of 1.8 to 3.0.

Additional risk management red flags could be fraud predictions by both the new and old fraud models. Such predictions happened for Kaisa. The old fraud model had an average score of a negative 0.94 and four of the five years showed a red flag, well above the fraud prediction cutoff of a negative 1.99. The 68% confidence range of a negative 2.61 to a positive 0.73 had fraud predictions for three years with a fourth year above this range. The only non-fraud prediction year was -2.62 which was just below the -1.99 fraud cutoff. The more comprehensive new fraud model had an average prediction of 1.84 and each of the five years showed

a red flag, well above the 1.0 fraud prediction cutoff. The 68% confidence range of 1.26 to 2.42 included three years with the other two years above this range.

Using the expected outcome and the standard deviation from each distribution, three additional important probabilities were calculated. To enhance corporate governance, management and boards of directors should be concerned about the possibility of having a negative value for net income, operating cash flow, and cash. The probability that net income will be less than 0 is only 10.38%. While the probability that cash will be negative is only 6.68%, a significant concern is that the probability of having a negative operating cash flow is a very large 72.57%.

Thus, there were plenty of red flags for additional risk management investigations by international managers, boards of directors, sophisticated investors, investment bankers, auditors, and other interested parties in the four areas of profitability, liquidity, solvency, and fraudulent financial reporting. There are many examples of such investigative procedures, like competitor comparisons and site visitations, by various short sellers and financial analysts who detected fraud in small Chinese companies listing on U.S. stock exchanges (Left, 2011; Norris, 2011; Bases et.al, 2011; Bishop, 2011; Gillis, 2011).

## 8. KAISA EPILOGUE

In a 2010 government investigation into a judicial corruption case, the Kaisa chairman confessed to paying a \$130,000 bribe to a judge who confessed to receiving this bribe which allowed Kaisa to take over the Sinopec Tower business complex in a large southern China city. The judge is now serving a life sentence but the Kaisa chairman escaped punishment. A government news agency described this Sinopec Tower deal as "a miscarriage of justice by a manipulated judiciary" (Barboza, 2015). In 2014, Kaisa's chairman was again being questioned in connection with this 2010 corruption case and another fraud investigation.

On December 10, 2014, this Kaisa company chairman and Kaisa co-founder resigned, "due to health reasons." The Kaisa vice-chairman and the CFO also resigned in December and by March, 2015, 170 other senior Kaisa managers had also resigned (White, 2015). A financial press writer has commented: "Make Leaders Lead—wouldn't it be nice if executives acted like leaders and accepted responsibility for the actions of their companies and their employees?" (Morgenson, 2012). On December 21, 2014, Shenzhen authorities were investigating a city property official for corruption and prohibited Kaisa from selling its homes at several major residential developments. As a result, the Hong Kong stock exchange halted trading in Kaisa's common stock on December 29, 2014 until late in January, 2015. (This home sale prohibition was partially lifted in April, 2015.)

On January 1, 2015, Kaisa missed a \$23 million payment on a \$50 million loan from the British bank HSBC. On January 9, \$115 million of Kaisa bank accounts were frozen by a court at the request of 15 Chinese financial companies and these accounts are under investigation by several banks (Law, 2015). On February 1, 2015, Kaisa disclosed its long-term

debt was \$10.4 billion, twice the debt reported in the financial statements and the Kaisa CEO resigned. An analyst said that Kaisa had been borrowing through off-the-books affiliated companies to cover up this \$5 billion missing debt, similar to the off-balance-sheet debt strategy of Enron (\$25 billion), Parmalat or "Europe's Enron" (\$10 billion) and Satyam or "Asia's Enron" (\$5 billion).

On February 4, 2015, Sunac, another Chinese real estate developer, offered \$580 million to acquire 49% of Kaisa but the offer was contingent on the Kaisa international debt investors agreeing to reduce ("haircut") their investments. Sunac estimated that these bond investors would receive 2.4 cents on the dollar if Kaisa went into bankruptcy. On March 3, 2015, Kaisa missed two more debt interest payments totaling \$52 million. On March 21, 2015, Standard & Poor's (S&P) Rating Services downgraded Kaisa's credit rating to default ("D"), saying it does not expect Kaisa to be able to restructure both its onshore and offshore debt anytime soon (Jim, 2015). The Kaisa debt market value has swung from 30 cents to 68 cents on the dollar, depending upon the status of the negotiations and related events.

By the March 31, 2015 deadline, Kaisa failed to file its 2014 financial statements, saying its auditors needed more time to resolve financial reporting issues (especially the going concern, bankruptcy issue). Accordingly, trading of Kaisa common stock was again suspended on March 31, 2015. On April 12, 2015, both the former Kaisa chairman and vice-chairman were reinstated to try to save Kaisa from bankruptcy (Fung and Law, 2015). On April 20, 2015, Kaisa defaulted on \$1 billion of its global bonds, becoming the first Chinese home builder to default on its U.S. currency debt (Barbosa, 2015). On May 27, 2015, Sunac withdrew its rescue buyout offer and one analyst said Kaisa cannot survive on its own without another "white knight" rescuer (Frangos, 2015).

On June 11, 2015, the Kaisa vice-chairman resigned and a new CEO was appointed (Yung and Fung, 2015). On June 18, 2015, the Sunac CEO told reporters that he had decided to terminate the Kaisa purchase because "the financial report provided by Kaisa showed its net asset per share was HK\$4.5 and our offer was for HK\$1.8. But after we started the due diligence on Kaisa, I found out its net asset per share was only zero" (Clare, 2015). On June 25, 2015, S&P discontinued its "D" rating for Kaisa, saying there was not sufficient or timely information available to assess Kaisa's credit quality, and commented: "Kaisa is unlikely to restore operations in the near term and it would be very difficult for Kaisa to regain the confidence of its customers and business partners after the default" (Reuters, 2015).

## 9. CONCLUSIONS

Kaisa is not an isolated example of a troubled Chinese company as of Fall, 2015. The following four significant Chinese companies, Kaisa Group Holdings, Tianhe Chemicals Group, Sihuan Pharmaceutical Holdings, and Superb Summit International Group, have five factors in common: 1) they did IPOs on the Hong Kong stock exchange in 2009, 2014, 2010, and 2001, respectively, 2) they failed to file their 2014 financial statements on time

by March 31, 2015, 3) their auditors have yet to sign off on these financial statements, 4) they still have their shares suspended from trading on the Hong Kong stock exchange as of December, 2015, and 5) their chairman or CEO resigned in 2014 after negative financial news was reported on their companies. The only exception is Superb Summit, who did issue their 2014 financial statements on March 30, 2015, but with a warning about a going concern or possible bankruptcy issue, due to negative operating cash flows, in the opinion of its auditor, a local Hong Kong firm. Accordingly, the Superb Summit shares are still suspended from trading since November 21, 2014.

To date, these four Chinese companies have potentially destroyed \$33.5 billion (US dollars) in international equity and debt investments as follows: Kaisa \$12.9 billion, Tianhe \$8.1 billion, Sihuan \$9.9 billion, and Superb Summit \$2.6 billion. In summary, one must ask: where were the company managers, the boards of directors, and sophisticated investors with risk management procedures for their various strategies? Once again, they disappointed by what they did not do, especially concerning strategic risk management for enhanced corporate governance (Morgenson, 2013).

In August, 2015, the global stock markets were in free-fall with extreme volatility and it seems that Jim Chanos, the billionaire short seller, who has been warning about a Chinese real estate bubble since 2009, has been vindicated. China is an important reason for such global stock market volatility. China's economy is faltering, its stock market is collapsing, and the inefficient efforts by government officials to prop up its stock market have led to a loss of confidence in China and its leaders which have spooked global stock markets (Nocera, 2015). Per a McKinsey & Company China report (2015): "China's debt rose from \$7 trillion in 2007 to \$28 trillion by mid-2014. At 282% of GDP, its debt share, while manageable, is larger than either the U.S. or Germany. Several factors are worrisome: half of the loans are linked directly or indirectly to China's real estate market, unregulated shadow banking accounts for nearly half of new lending, and the debt of many local governments is likely unsustainable." Per Ken Rogoff, a Harvard economics professor, who has long warned of a potential financial crisis in China: "Financial meltdown leads to a social meltdown, which leads to a political meltdown. That's the real fear" (Sorkin, 2015). Finally, Jim Chanos recently declared about China: "Whatever you think, it's worse" (Sorkin, 2015).

The need for increased risk assessment of an international investing strategy on both macro-economic and micro-economic levels can be dramatically summarized by the following two examples. On the macro-economic risk level, official measures of China's GDP and growth are inflated and do not jive with typical economic indicators used to assess possible dodgy economic statistics, such as freight shipments, passenger travel, electricity use, and property development (Morici 2015). For example, in December 2015, local Chinese officials in China's Northeast region admitted to faking economic growth data in the past few years to show high growth when the real numbers were much lower, such as 12% versus 6.3%

and 9.5% versus 2.7%. They said that they had overstated data ranging from fiscal revenue to household income to GDP (Williams 2015).

On the micro-economic risk level, there was the following legal defense of Chinese executives in another Chinese company fraud, Sino-Forest, which destroyed \$6.9 billion in market capitalization. Their lawyers said that these executives never committed any fraud but were just following common business practices accepted in China. Such "common business practices" included faulty accounting standards that make questionable the assessment of true profitability for most public Chinese companies, which enabled bond ratings to be AA or AAA for 97% of Chinese companies versus 1.4% for U.S. companies (Yu 2014). Thus, there is a need for enhanced corporate governance by both management and boards of directors when assessing the risk of an international investing strategy.

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