THE ROLE OF RISK MANAGEMENT IN CORPORATE GOVERNANCE: GUIDELINES AND APPLICATIONS

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Abstract

Risk management should be a key concern of board members to enhance corporate governance in any organization. Eleven key numbers, ratios, and models were advocated in this paper for risk management analyses, including an analysis of their variability with graphs. They are applied to Kaisa, a Chinese property developer, located in Shenzhen but incorporated with limited liability in the Cayman Islands. The importance of such risk management analyses was demonstrated in this paper as Kaisa destroyed $12.9 billion in four different types of investments: $2.2 billion in stock market value, $0.3 billion in private equity investments, $2.5 billion in global bonds, and $7.9 billion in Chinese short-term and long-term debt. Thus, the use of key financial statement metrics, including fraud models and ratios, has been shown here to provide enhanced corporate governance with risk management guidelines and applications. Boards of Directors need to pay attention to key financial statement metrics, which have been shown to work over and over again, as with Kaisa in this paper. These key metrics usually start with operating cash flows which then may indicate problems with debt service (the fixed charge coverage ratio) which then may lead to bankruptcy predictions by the Altman bankruptcy model. To cover up such survival problems, companies often resort to earnings management and even fraudulent financial reporting which are typically red flagged by the quality of earnings, the quality of revenues, the new fraud model and the old fraud model.

Keywords: Risk Management, Corporate Governance, Fraud Models

1. INTRODUCTION

Risk management should be a key concern of board members to enhance corporate governance in any organization. Unfortunately, such concern is often not the case. 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 only ever had two meetings, one in 2006 and one in 2007 before the company went bankrupt in 2008. The lack of expertise was noteworthy with Lehman Brothers' risk management committee. The chair was an 80 year-old banker who had little experience in the newer banking practices concerning financial instruments, such as credit default swaps, mortgage-backed securities, and collaterized debt obligations. Other Lehman Brothers risk committee members were a retired CEO of IBM, a Broadway show producer, a former CEO of a Spanish television network, and a retired rear admiral of the U.S. Navy!

A similar competence issue was raised by Richard Breeden, former head of the Securities and Exchange Commission (SEC), about the board of American International Group (AIG) which included diplomats and admirals: "AIG, as far as I know, didn't own any aircraft carriers and didn't have a seat in the United Nations" (Das, 2011). 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). The 2010 Dodd-Frank Act requires that major banks have a risk management committee with at least one member being an expert in risk management. There

is also an ISO 31000 Risk Management standard which has processes for risk identification, risk analysis, and risk evaluation (McNally and Tophoff, 2015).

Recent problems in risk management include JPMorgan Chase where there was a $6 billion trading loss by the company's chief international investment office, i.e., the "London Whale" loss, and the liquidation of UBS's $500 million Willow Fund, a closed-end investment fund. The portfolio manager changed his investment strategy from distressed corporate debt instruments to 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 (Morgenson, 2013). Thus, board directors often disappoint by what they do not do, especially concerning risk management (Morgenson, 2013).

There should be effective monitoring of risk without dependence on any corporate bailout financing which happened for the largest 19 U.S. banks with the U.S. Taxpayers Assistance Relief Act of $700 billion in 2009. "The CEO of any large financial organization must be the Chief Risk Officer and must not delegate risk control to a Risk Committee or a Chief Risk Officer. Risk control is simply too important" (Buffett, 2008). Buffett further 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). For example, both the CEOs of Volkswagen and Wells Fargo Bank "resigned" in 2016 without any golden parachute pay when lack of risk management procedures became public at their companies. The Wells Fargo CEO even had to claw-back $41 million of his compensation.

2. RISK MANAGEMENT OVERVIEW

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 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 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 - 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 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 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, board members, and investors 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. Managers, board members, and investors have to learn to live with such uncertainty and avoid a false sense of security.

3. 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.

Then, these three initial risk management focuses are each expanded to assess additional volatility as follows. The net income profitably 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, 2010). This financial analyst also commented: "A common element in major frauds is that their warning signs were not hard to find; in fact, they were hard to miss" (Schilit, 2010). 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 McKinsey & Company report (2013) found that 100 small Chinese companies, mainly using reverse take-overs (RTO) to get listed on U.S. stock exchanges in 2005-2010, had then been delisted in 2011-2012 and destroyed over $40 billion in stock market value. Also, major frauds of the 21st Century had destroyed $490 billion in stock market value (Grove and Basilico, 2011). Thus, two fraudulent financial reporting prediction models are 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; 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; a larger result is a fraud prediction.

4. RISK MANAGEMENT APPLICATIONS

These eleven numbers, ratios, and models, advocated in this paper for risk management analyses, are applied to Kaisa, a Chinese property developer, located in Shenzhen 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 2009-2013, Kaisa also 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. Thus, there should have been plenty of due diligence investigations of Kaisa by all these investment banks, private equity funds, auditors, IPO stock investors, and international debt 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 of the 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 by all these sophisticated entities?

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, which could reduce the appeal of Chinese companies to 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).

To demonstrate a methodology for risk management analysis, the eleven numbers, ratios, and models in this paper are now applied to Kaisa. 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, pending resolution of negotiations with debt investors since a $23 million 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 absolute numbers (net income, operating cash flows, and cash) in Table 1 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

			Standard Deviation Ranges			
Metric	***Average***	***Red Flag? # of Years***	***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 0f 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*

Concerning the prior recommended focus on the P&L or net income, 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 in Figure 1 of the Appendix. Thus, with a volatility of $415 million from the worst to the best, a manager or board member would expect that 32% of the time, net income would be outside this range.

The corresponding profit margin had an average of 17.1%. In Figure 2 of the Appendix, there was a one standard deviation confidence range of 13.7% to 20.5%, a range of 6.8% from worst to best; so a manager or board member would expect that 32% of the time, profit margin would be outside this confidence range. It happened in 3 of the 7 years. The two standard deviation confidence range was 10.4% to 23.7%, a range of 13.3 from worst to best; so 5% of the time, the profit margin would be outside this range. Only 7 years were used since there was an outlier profit margin of 46.9% in 2010, one year after the IPO which could hint of earnings management to help retain IPO stock investors and attract new investors. 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).

Concerning liquidity as an expanded risk management focus, the average operating cash flow

was a negative $185 million from 2008 to 2013. In Figure 3, the one standard deviation confidence range (for a 68% probability) was a negative $493 million to a positive $123 million , a range of $616 million from worst to best; so a manager or board member would expect that 32% of the time, operating cash flow would be outside this confidence range. In 4 of the 6 years, operating cash flow was within this range. The two standard deviation confidence range (for a 95% probability) was a negative $788 million to a positive $418 million; so a manager or board member would expect that 5% of the time, operating cash flow would be outside this range.

This liquidity focus is further expanded with the quality of earnings and quality of revenues ratios. Their averages of a negative 0.42 and a positive 0.98, respectively, show red flags for possible earnings management or fraud in all 5 years and in 4 of 5 years, respectively, falling below the 1.0 no-red flag cutoff for both ratios. For quality of earnings in Figure 4, the one standard deviation confidence range of a negative 1.47 to a positive 0.62 captures 4 of the 5 years but the fifth year is a negative 2.13 so there are fraud predictions for all 5 years. For quality of revenues in Figure 5, the one standard deviation confidence range of 0.78 to 1.19 captures 3 of the 5 years (0.94, 0.96, and 0.98) but a fourth year is 0.74; so, there are fraud predictions for 4 of the 5 years. The fifth year (1.30) is not a fraud prediction but occurred in the same year 2010 as the profit margin outlier of 46.9% which may again indicate earnings management one year after the IPO.

Concerning solvency as an expanded risk management focus, the average cash balance from 2006 to 2013 was $541 million. In Figure 6, the one standard deviation range (or a 68% probability) was $181 million to $900 million, a range of $719 million from worst to best; so, a manager or board member would expect that 32% of the time, the cash balance would be outside this range which occurred in 3 of the 8 years. The two standard deviation confidence range (for a 95% probability) was a negative $164 million to a positive $1,255 million, a range of $1,419 million from best to worst; 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.

This solvency focus is further expanded with the fixed charge coverage (FCC) ratio, the Sloan accrual ratio, and the Altman bankruptcy model. The average FCC ratio was 0.59, well below the solvency cutoff of 1.15 for adequate debt service. Seven of the eight years were below this 1.15 cutoff. Only a 2.0 ratio from the initial 2006 reporting year was above this cutoff when the company was still privately held. In Figure 7, the one standard deviation confidence range (for a 68% probability) was a negative 0.20 to a positive 1.38; so, a manager or board member would expect that 32% of the time, the FCC ratio would be outside this range. 6 of the 8 years fell within this range. The two standard deviation confidence range (for a 95% probability) was a negative 0.96 to a positive 2.14; so, a manager or board member would expect that 5% of the time, the FCC ratio would outside this range.

For the Sloan accrual ratio, the average was 0.09 (just below the 0.10 cutoff). Only five years could be calculated due to the lack of statements of cash flows in the earlier years. In only two years (2010 with 0.13 and 2011 with 0.18) was this ratio above the red flag cutoff of 0.10. In Figure 8, the one standard deviation confidence range of 0.04 to 0.15 captured four years. The two standard deviation confidence range was from a negative 0.02 to a positive 0.21.

Concerning the Altman bankruptcy model, the average was 0.92 which is a bankruptcy prediction below the 1.8 cutoff for four of the five years that the necessary financial information was available. 2009, the IPO year, was just a possible bankruptcy prediction with a score of 2.51 versus the possible range of 1.8 to 3.0 for this model. Years 2010, 2011, 2012, and 2013, all had progressively stronger bankruptcy predictions of 1.14, 0.41, 0.30, and 0.25, respectively. In Figure 9, the one standard deviation confidence range of a negative 0.04 to a positive 1.88 captured four years. The two standard deviation confidence range was a negative 0.96 to a positive 2.80.

Finally, two well-known fraudulent financial statement prediction models (Beneish, 1999 and Dechow et.al., 2007) are applied to the five years that had all the necessary data for Kaisa. The older Beneish fraud model had an average score of a negative 0.94 which was well above the fraud prediction cutoff of a negative 1.99. Thus, there were fraud predictions in four of the five years: -1.36 for 2009, the IPO year, 1.85 for 2011, -1.56 for 2012, and -1.01 for 2013. The only non-fraud prediction year was 2010 with -2.62, which further indicates the possibility of window dressing or earnings management in the year after the IPO to keep investors interested in the company. In Figure 10, the one standard deviation confidence range was a negative 2.61 to a positive 0.73 which just missed the fifth year while the two standard deviation confidence range was a negative 4.22 to a positive 2.34.

However, the newer, more comprehensive, Dechow fraud model did predict fraud in all five years. The average score was 1.84, well above the 1.0 fraud prediction cutoff. The five fraud predictions in chronological order from 2009 to 2013 were 1.13, 1.96, 2.72, 1.67, and 1.72. In Figure 11, the one standard deviation confidence range of 1.26 to 2.42 picked up three of the five years. The two standard deviation confidence range was 0.70 to 2.98.

Using the expected outcome and the standard deviation from each distribution, three additional important probabilities were calculated. Management and the board are likely to be concerned about the possibility of having negative

values for net income, cash and operating cash flow. The probability that net income will be less than 0 is only 10.38% and the probability that cash will be negative is only 6.68%. However, a significant concern is that the probability of having a negative operating cash flow is a very large 72.57%.

5. RISK MANAGEMENT IMPLICATIONS FOR CORPORATE GOVERNANCE

As shown in Table 1, there were plenty of red flags for further risk management investigations by Kaisa's board of directors and other interested parties. Using the numbers, the ratios, and the models advocated in this paper, the board members can increase their understanding of their organization's risk and can better meet their fiduciary responsibilities as board members. Calculating and understanding the confidence ranges for variables and measures can help to mitigate the impact of surprises that occur when outcomes are outside the confidence ranges.

It is especially important for boards of directors and other interested parties to pay attention to the fraud predictions by both the new and old fraud models. The board should not be in a position where they are surprised by fraud within the organization. Such predictions happened for Kaisa. All of the results in this paper suggest that there are plenty of red flags for additional risk management investigations by the board of directors 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, surprise onsite visits, and comparisons of financial report filings with different legal entities, 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).

6. CONCLUSIONS

Boards of Directors need to pay attention to key financial statement metrics, which have been shown to work over and over again, as with Kaisa in this paper. These key metrics usually start with operating cash flows which then may indicate problems with debt service (the fixed charge coverage ratio) which then may lead to bankruptcy predictions by the Altman bankruptcy model. To cover up such survival problems, companies often resort to earnings management and even fraudulent financial reporting which are typically red flagged by the quality of earnings, the quality of revenues, the new fraud model and the old fraud model.

On December 10, 2014, the Kaisa company chairman and co-founder resigned, "due to health reasons." The Kaisa vice-chairman and the CFO also resigned in December (White, 2015). By March, 2015, 170 other senior Kaisa managers had also resigned. A financial press writer 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 February 1, 2015, Kasia disclosed its long-term debt was $10.4 bln, 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 bln missing debt, similar to the off-balance-sheet debt strategy of Enron ($25 bln), Parmalat or "Europe's Enron" ($20 bln), and Satyam or "Asia's Enron" ($10 bln). Similarly, Lehman Brothers kept $50 bln debt off its books by claiming its debt collateral was really a "repossession" financing sale.

At the start of March, 2015, Kaisa had only $306 million in cash of which only $77 mln was unrestricted. On March 3, 2015, Kaisa missed two debt interest payments totaling $52 mln. On March 21, 2015, Standard & Poor's Rating Services downgraded Kaisa's credit rating to "default", saying it does not expect Kaisa to be able to restructure both its onshore and offshore debt anytime soon (Jim, 2015). On March 31, 2015, 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 suspended on March 31, 2015 (and has not resumed as of 2017).

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 offer 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). He said that another reason Sunac dropped its Kaisa bid was the delayed publication of Kaisa's 2014 annual financial report and commented: "I don't think their report will ever come out" (Hu and Fung, 2015).

At the time of its IPO, Kaisa listed six executive directors, none of whom were independent since all had top management positions in Kaisa, and three independent non-executive directors. Thus, there was majority control by insiders who had six of the nine board positions. Also, the Kaisa company chairman was the chairman of three of the four Kaisa board committees: the general board of directors, the remuneration committee, and the nomination committee. His brother was the vice chairman of the general board of directors. The two brothers and a third brother had formed a Family Trust which owned 49% of Kaisa.

The Kaisa board only had two meetings in 2009, the IPO year, and the only two board members who attended both meetings were the two brothers! The board has staggered reelections of one-third of the directors who all serve three year terms. Thus, the entire Kaisa board cannot be turned over in one year. Kaisa reported that there were no audit committee meetings in 2009 because the company's IPO was December 9, 2009! The audit committee did meet on March 10, 2010 to reappoint PWC Hong Kong which has been Kaisa's auditor since 2007.

Kaisa is not an isolated example of an ongoing, troubled Chinese company as of early 2017. The following four significant Chinese companies, Kaisa Group Holdings, Tianhe Chemicals Group, Sihuan Pharmaceutical Holdings, and Superb Summit

International Group, all 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 now have had their shares suspended from trading on the Hong Kong stock exchange, and 5) their chairman or CEO resigned in 2014 after negative financial news was reported on their companies.

As of 2017, these four Chinese companies have destroyed $68.7 bln (US dollars) in international equity and debt investments as follows: Kaisa $12.9 bln, Tianhe $8.1 bln, Sihuan $45.1 bln, and Superb Summit $2.6 bln. The other three Chinese companies just destroyed common stock investments, but Kaisa destroyed four types of investments: $2.2 bln in market cap, $0.3 bln in private equity investments, $2.5 billion in global bonds, and $7.9 billion in Chinese short-term and long-term debt. As in other cases of possible fraudulent financial reporting, unethical behavior, and investment losses, one must ask: where were the company managers, the boards of directors, and sophisticated investors with risk management procedures for their various strategies? Unfortunately, we have seen this movie many times before, both in China and in the U.S.! Once again, these people disappointed by what they did not do, especially concerning risk management (Morgenson, 2013).

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APPENDIX

Variability of Key Metrics

Figure 1. Net Income

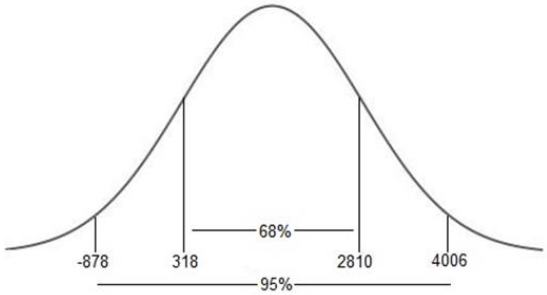

Figure 2. Profit Margin

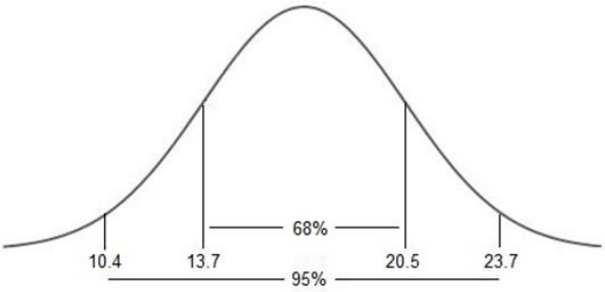

Figure 3. Operating Cash Flow

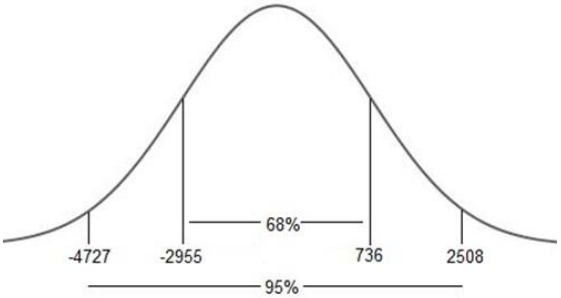

Figure 4. Quality of Earning

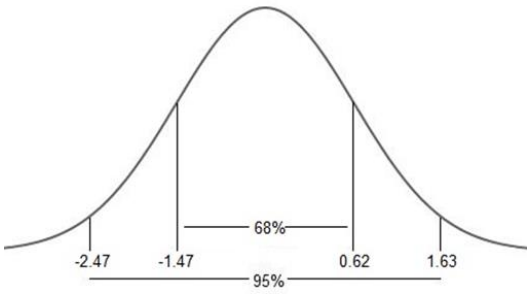

Figure 5. Quality of Revenues

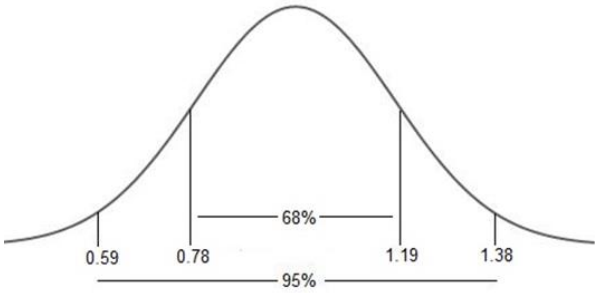

Figure 6. Cash

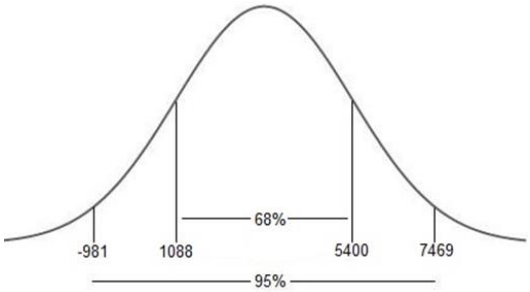

Figure 7. Fixed Charge Coverage

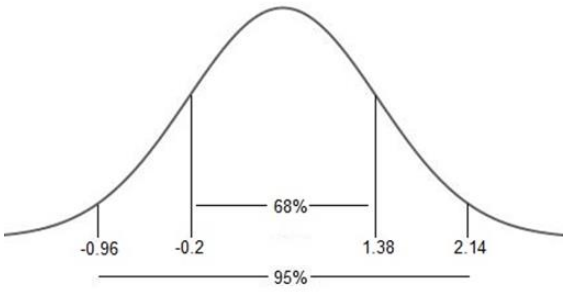

Figure 8. Sloan Accrual Measure

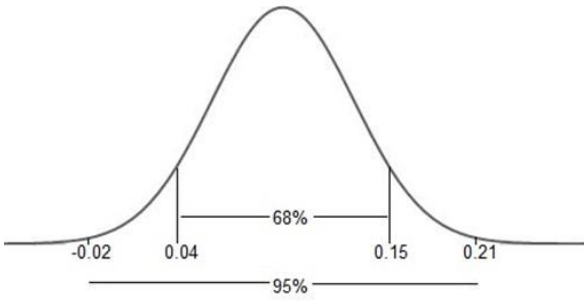

Figure 9. Altman Bankruptcy

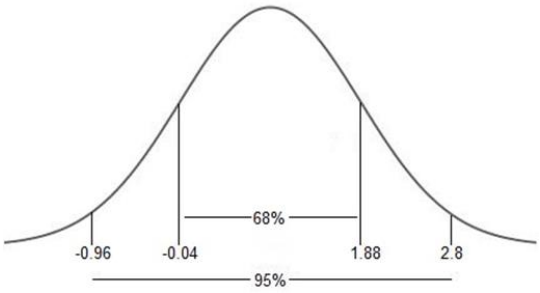

Figure 10. Old Fraud Model