

RISKS TO CONSIDER WHEN INVESTING OFFSHORE

N.J. Godi*, J. Young**

Abstract

When investors engage in international business, transactions and operations, they encounter additional risks compared to trading domestically. Different languages, currencies, jurisdictions, customs and habits can be translated into extra informational asymmetries and transaction costs that may affect the smooth operation of business. Political transitions can also play an important role in the success of an offshore investment, especially in a world full of political uncertainty. As such, mitigating offshore risks is a significant factor in the success of overseas projects, investments and contracts. As such, this paper aims to identify risks which investors are exposed to when investing offshore and ranking these risks in order of importance, based on a literature review as well as views and experiences of South African investment brokers registered with the Financial Services Board.

Keywords: Risks; Investors; Offshore Investments; Foreign Exchange; Market Risk, Exchange Rate Risk; Credit Risk; Liquidity Risk; Technological Risk

* *University of South Africa, PO BOX 392, UNISA, Pretoria, 0003,*

Tel.: +27 12 429 8895, +27 82 460 3735

Fax: +27 86 569 8843

E-mail: godinj@unisa.ac.za

** *University of South Africa, PO Box 52 185, Wierda Park, Centurion, Pretoria, South Africa, 0149*

Tel.: +27 12 429 3010

Tel.: +27 83 307 6265

Fax: +27 86 695 3324

E-mail: youngj@unisa.ac.za

1. Introduction

Offshore risks have been acknowledged to have a relevant impact on investor's decisions due to losses suffered in the past. In some cases, offshore risks have forced several major investors into bankruptcy and throwing a number of businesses into disarray through job losses. Uncontrolled offshore risks can be regarded as one of the main reasons that lead to unfavourable results. According to Saunders and Cornett (2008), an offshore-oriented investor that mismatches the size and maturities of its foreign assets and liabilities is exposed to foreign currency and foreign interest rate risks. Even beyond these risks, and even when investing in dollars, holding assets in a foreign country can expose an investor to an additional type of foreign investment risks.

Regardless of the risk under consideration, investors strive toward an investment that yields the greatest possible income with the least possible risk. When choosing an investment, investors are advised to think carefully about how much risk they are willing to take. This is emphasised by Lucas (2009), who warns that while money may ensure security, placing capital in a high-risk environment could cause investors more concerns than the

investment is worth. Additionally, in the volatile state of financial markets, the risk of investments should be considered more carefully than in stable markets. It is at times like these that investors are reminded that there is no such thing as risk-free investments. Everything has its price, and in the case of offshore investments, that price could be a result of offshore risks.

In the face of plunging markets, some investors discovered that they are not quite as tolerant to offshore risks as they might have thought. A number of investment portfolios are adjusted during difficult times, with investors adopting a mix of assets which they consider to be profitable in the long term. When reassessing investment portfolios, some offshore investors use risk analysis as an essential tool for adjusting their portfolios. Risk analysis is defined by Aven (2003) as a technique used to identify and assess the factors that may jeopardise the success of a project or of achieving a goal. This technique also helps to define preventive measures that can be used to reduce the probability of these factors from occurring and identify counter measures to deal with these constraints successfully. Therefore, analysis can help investors decide whether a given investment is too volatile or if the investment is not

providing a return proportionate to the risk associated with it.

During the past number of years, the South African economy has developed rapidly and is affected by global market fluctuations. A number of South African investors are becoming global players by investing in foreign countries and markets. Thus, there are a number of risks to consider when considering doing business or investing in foreign countries. This paper seeks to identify and rate, in order of importance, the risks that should be considered when investing offshore. In support of this objective, the paper is divided into a brief literature review of the various risk types, followed by a methodology to determine the appropriate risks in order of importance that should be considered by offshore investors.

2. Literature review

Offshore risks vary from one country to the next. Some countries have high risks that discourage foreign investors. For example, when a domestic corporation is unable or unwilling to repay a loan, an investor usually recourses to the domestic bankruptcy courts and eventually may recoup at least a portion of its original investment when the assets of the defaulted firm are liquidated or restructured. By comparison, a foreign corporation may be willing but unable to repay the principal or interest on a loan. Most commonly, the government of the country in which the corporation is hosted may prohibit or limit debt payments because of foreign currency shortages and adverse political reasons.

In the event of such restrictions, rescheduling or outright prohibitions on the payment of debt obligations by sovereign governments, the investor has little, if any, recourse to the local bankruptcy courts or an international civil claims court. The major leverage available to an investor to ensure or increase repayment probabilities and amounts is its control over the future supply of loans or funds to the country concerned. However, such leverage may be very weak in the face of a country's collapsing currency and government (Saunders and Cornett, 2008).

In summary, the notion of offshore risk itself is very old and integrated into the assessment of risk and return in international operations. Usually, it was seen as inextricably linked with doing business abroad. When doing business abroad, investors need to consider a number of factors prior to investing offshore, since changes in political and economic policies can be detrimental to investors' success. According to Frenkel, Karmann and Scholtens (2004), politics is a major factor in determining the overall structure of financial markets and the regulatory framework. Countries have different rules that regulate investments in

their countries. For this reason, offshore investors investing in countries that have unstable political economic systems should consider adding a risk premium when determining their required rate of return for these additional uncertainties. Risk premium refers to an increment in interest rates that would have to be paid for loans and investment projects in a particular country (Chapman, 2006). One way of establishing the risk premium for a country is to compare the interest rate that the market establishes for a standard security in the country to the comparable security in the benchmark country. For the securities to be comparable, they should have the same maturity and involve payment in the same currency.

The reason why the payments should be the same is that otherwise the differential in the interest rates would reflect the differential rates of inflation in the two countries instead of solely the market perceived risk of non-payment. The interest rate that is relevant is the market-determined yield to maturity rather than the coupon interest rate. The coupon interest rate is valid only if the issuers were careful to set the coupon rate so that it is equal to the yield to maturity of the security. For example, suppose the US government has issued a five-year bond that has a yield to maturity of 6% and the government of Poland borrows dollars by selling a five-year bond that pays in dollars and the yield to maturity of that bond is 8%. The risk premium for Poland would be 2%. The 2% is the correct value providing the yields to maturity, which is expressed as instantaneous rates. If they are expressed as effective annual rates then the correct computation of the risk premium (ρ) is as follows:

$$1+\rho = (1+0.08)/(1+0.06) = 1.01887$$

and thus

$$\rho = 0.01887$$

The above procedure is easily implemented if a country's government borrows through securities denominated in dollars. This is common among the various emerging market economies but rare in the developed economies. Developed countries like the United States are generally considered the benchmark for low country risk, and most nations can have their risk measured as compared to the United States (Huang, 2009).

Political analysts as well as economic analysts are increasingly drawn into the debate of the interplay between politics and stock markets. In this regard, Moran (1998) warns investors that, if different political parties manipulate the economy according to their policies, the results would be reflected on the stock market. For example, there was instability in the South African stock market prior to the outcome of the African National Congress (ANC) policy conference in Mangaung in December 2012. In addition, it is assumed that

electoral uncertainty is directly related to stock market volatility and that political events, such as the election of a politician who is expected to enact market-friendly policies, lead to increases in stock market returns. Conversely, political events that are expected to have a negative impact on the economy and specific businesses lead to decreases in stock market returns. Therefore, it can be deduced that political variables cause fluctuations in stock market returns. According to Saunders and Cornett (2008), political variables take many different shapes and forms as changes in domestic and foreign policy, as well as uncertainty brought about by national elections. The re-distribution of political power could have important implications in the future political and economic course of a country.

Consequently, an election brings a major uncertainty to both domestic and foreign investors. Although exchange control regulations in South Africa have been dramatically eased since 1996, investors still need to follow a bureaucratic process when they wish to invest offshore using the R2m foreign investment allowance (Thorne and Cloete, 2010). Investors should ensure that they follow domestic as well as international rules and regulations during international investments. Some trade agreements are extremely convoluted and complicated and may involve not just one international agreement between two countries, but agreements between multiple countries. As a result, international investments can be confusing and difficult to maintain, particularly if those investments span several different industries. As the aim of this paper is to identify risks that should be considered when investing offshore, the next section will briefly discuss the possible offshore risks that could be detrimental to an offshore investment plan.

2.1. Risk types to consider when investing offshore

Most investors are debating the differences between risk types. Although some regard this debate as semantic, it is necessary to clearly define each risk type that need to be considered when investing offshore. This understanding will allow investors to identify the risk proactively and manage it, thus protecting their investments and assisting them in making the most appropriate investment decisions. Some of the primary offshore risks to be considered are identified in this section.

2.1.1. Exchange rate risk

According to Madura (2009), exchange rate risk is a form of risk that arises from the change in price or value of one currency against another currency. Whenever investors or companies have assets or

business operations across national borders, they face exchange rate risk. As economic conditions, such as import and export change, exchange rates could change substantially. According to Madura and Fox (2007), each currency is valued in terms of other currencies, so that currencies can be exchanged to facilitate offshore transactions. The values of most currencies fluctuate over time because of market and government forces.

Exchange rates are thus affected by risks associated with a particular country. For example, there may be political or military involvement, and restrictions may be imposed. There are also commercial factors, like a major foreign customer becoming bankrupt or defaulting. Major customers in the domestic country can also default, however, they are not operating under unfamiliar legal or regulatory systems. It is possible for investors to insure themselves against such risks, but this can be costly.

A number of South African companies trade with companies overseas or obtain foreign capital abroad. As such, they are not insulated from exchange rate risk, political instability, inflation, economic policy, interest rates, unemployment and the economic growth rate that can lead to changes in exchange rates.

2.1.2. Market risk

Young (2006) defines market risk as the risk of a decrease in the value of a financial portfolio as a result of adverse movement in market variables such as prices, currency exchange rates and interest rates. In other words, market risk is an exposure arising from adverse changes in the market value of a financial instrument or portfolio.

Markets are highly competitive resulting in thousands of intelligent and well-backed analysts constantly scouring the securities markets searching for the best options. This competition means that investors should expect to find few, if any, investments that are obvious bargains. Market risk is therefore another important risk that needs to be addressed for the success of an offshore investment plan.

2.1.3. Inflation risk

Appel (2008) defines inflation as the overall general upward price movement of goods and services in an economy, usually measured by the consumer price index (CPI) and the producer price index (PPI).

When inflation occurs (the cost of goods and services increase), the value of a currency decreases because investors will not be able to purchase as much with the same currency as they previously could. For example, if one Rand could buy three candy bars last year and today it can buy only two,

the purchasing power of the Rand has decreased. In periods of declining price levels (deflation), the purchasing power of a currency increases.

Efforts on the part of government to curb the rate of inflation are usually accompanied by an increase in interest rates. Higher interest rates, in turn, increase the cost of credit, and this could eventually limit the demand for goods and services in a country. Some of the main factors, which have an influence on the interest rate as well as other factors, do not function in isolation, but have implications for many other aspects of a country's economy.

2.1.4. Interest rate risk

According to Whittaker (2009), interest rate is the rate payable on borrowed money. This rate is applied to the principal of a loan and can be compounded in many ways. For example, interest rates can be compounded daily, weekly, monthly or annually. According to Sharpe (2007), interest rate risk is a general increase or decrease in market interest rates as a result of the monetary policy of the central bank. After the central bank has adapted its general lending rate, those in the banking sector alter their own prime and other lending rates accordingly. This has a ripple effect throughout the entire economy and influences all economic activities because changes in interest rates affect cash, bonds and stocks (Bodie, Kane and Marcus 2004).

As a result, the risk of a particular investment could increase as interest rates increase. As risk increases, the cost of stocks decreases and investors may lose money. However, the converse is actually beneficial. For example, if interest rates are reduced, stock prices are bound to increase. Investors could make money by selling stock at a higher price. An increase in interest rates will increase the cost of capital (Chapman, 2006).

2.1.5. Credit risk

Wagner (2008) defines credit risk as a failure to make required debt payments on a timely basis or to comply with other conditions of an obligation or agreement. It may comprise, for example, the possibility that a bond issuer will default by failing to repay the principal amount and interest in the time agreed upon.

Movements of financial capital between countries are normally dependent on either credit or equity transfers. Credit is in turn dependent on the reputation or creditworthiness of an investor that takes responsibility for the funds. Actual credit losses depend on the collateral and netting agreements. In some (but not all) instances, collateral taken can be liquidated upon default to cover losses, while a netting agreement allows a

portfolio of deals to be collapsed into a single payable or receivable (Wagner, 2008).

While the term credit risk can encompass credit scoring, it is more commonly used to refer to processes that entail human judgement. As such, it is necessary that offshore investors assess and review information about the counterparty. This might include the counterparty's balance sheet, income statement, recent trends in its industry, and the current economic environment. It is clear that credit risk provides another likely explanation of why the required rate of return is not always realised. According to Wagner (2008), default bonds are regarded as those bonds that constitute failure to pay interest. From an investor's point of view, insolvency can be regarded as a serious issue where the repayment of the capital sum in total or in part is at stake.

2.1.6. Liquidity risk

According to Tracy (2005), liquidity risk is an investment that has no immediate access to either the ability to buy or sell the investment, such as a stock or mutual fund, or the ability to access and withdraw funds, from a savings account. According to Gitman and Joehnk (2008), a liquid asset has some or more of the following features: can be sold rapidly; with minimal loss of value; any time within market hours. The essential characteristic of a liquid market is that there are ready and willing buyers and sellers at all times.

For the purposes of asset allocation, it is critical that illiquid asset classes be made comparable to liquid asset classes. An estimation procedure may help to assess the true risks and diversification benefits presented by illiquid asset classes more accurately. Even though the approach involves some assumptions, it should provide a better picture of the variations in illiquid returns. Usually when an investor acquires an asset, it expects that the investment will mature or that it will be sellable to another investor.

In either case, the investor expects to be able to convert the security into cash and use the proceeds for current consumption or other investments. The more difficult it is to make this conversion, the greater the liquidity risk. According to Rose and Hudgins (2005), an investor must consider two questions when assessing the liquidity risk of an investment, namely:

- how long will it take to convert the investment into cash; and
 - how certain is the price to be received?
- Similarly, uncertainty faces an investor who wants to acquire an asset, namely:
- how long will it take to acquire the asset; and
 - how uncertain is the price to be paid?

Based on the abovementioned discussion, it is clear that liquidity risk can be regarded as one of the key risks an investor should consider when investing offshore. Liquidity management will not only ensure that risks are kept minimal but also that opportunities presented are exploited.

2.1.7. Legal risk

According to Young (2006), legal risk is the risk arising from violation of or non-compliance with laws, rules, regulations, prescribed policies and ethical standards. This risk also arises when laws or rules governing certain products or activities of an organisation's customers are unclear or untested. According to Chapman (2006), legal risk is defined as failing to operate within the law, to be aware of legal obligations, to honour contractual commitments, to agree remedies for compensation with the offshore company in the event of default, and to show evidence that a corporation has operated within the law, or to recognise and effectively manage legal threats. According to Rose (1999), the scope of legal risk for a business may be considered to include, but is not limited to:

- breach of environmental legislation;
- inaccurate listing information in terms of misstatements, material omissions or misleading opinions; and
- breach of copyright.

Offshore investors' objectives may be compromised when legal risk is not minimised in a foreign country. Failure to manage legal risk can result in the cancellation of offshore investment contracts, penalties, fines and termination of trading licenses in extreme cases, which will be detrimental to the investors' objectives in the international arena. However, when legal risk is managed, offshore investors can realise great benefits.

2.1.8. Technological risk

Technological risk has become a major concern for offshore investors in recent years. Since the 1980s, banks, insurance companies and offshore investment companies have sought to improve operational efficiency with major investments in internal and external communications, computers and an expanded technological infrastructure.

Technological risk arises when existing technology malfunctions or back-office support systems break down (Saunders and Cornett, 2008). According to Chapman (2006), technology risk refers to sources of risk that are considered to be embraced within the term technology. Technology risk includes the following, for example:

- a lack of investment in technology and the resultant erosion of the ability to compete; and
- inadequate technology governance, in particular, IT governance.

A general lack of adequate technology can lead to investors having to withdraw offshore investments as a result of an inability to compete and leading to frustrations and losses. When investors envisage offshore investments, they need to ensure that they can afford the technology needed to trade with their offshore counterparts. As such, there are technological factors that need to be considered by offshore investors before investing offshore.

In conclusion, the decision to invest offshore is not one to be taken lightly, as there are many risks that need to be considered, which could be detrimental to an offshore investment plan. According to the discussions of each risk type, it is apparent that offshore investments are not risk free. Thus, offshore investors need to assess each and every risk individually, to determine the extent of the risk exposure before making an investment. The next section will focus on certain risk-related control measures which could reduce the risk exposure when investing offshore.

3. Research methodology

The aim of the paper is to determine and rank, in order of importance, the risks that should be considered when investing offshore. As such the investment brokers registered with the Financial Services Board (FSB) and licensed to trade offshore were selected as the target population to respond to a closed structured questionnaire. A web-based questionnaire using LimeSurvey was used to collate data from the respondents. The SPSS statistical methodology was used for the analysis from where recommendations and conclusions were drawn.

According to the data obtained from the FSB, the investment industry in South Africa consisted of fifty-two (52) investment brokers in July 2011. However, it was confirmed that only twenty-eight (28) investment brokers were registered and licensed to trade offshore. A response rate of 44% was achieved which was regarded as sufficient to make reliable and valid conclusions.

4. Discussion of findings

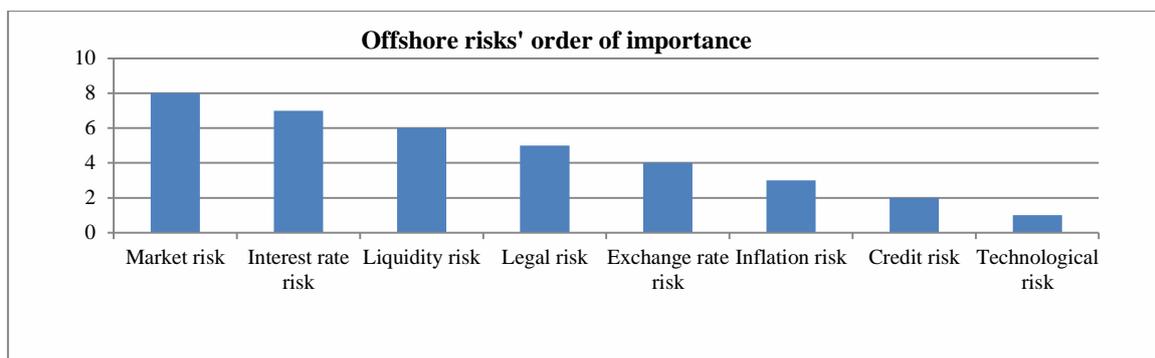
The response was subjected to a descriptive statistical analysis process and focused only on the identified respondents, which has been at the forefront of offshore investments and plays a key role in the South African offshore investment market. According to empirical evidence obtained from the respondents, there are eight risks that should be considered when investing offshore. The respondents were requested to rate the importance of considering these risks from very important to irrelevant when investing offshore using the Likert scale below.

Table 1. Responses concerning the level of the risk when investing offshore

Scale value	Scale name	Scale description
1	Irrelevant	Indicates that the risk is irrelevant to consider when making an offshore investment decision according to the respondents' views and experiences.
2	Unimportant	Indicates that the risk is not important to consider when making an offshore investment decision according to the respondents' views and experiences.
3	Neutral	Indicates that the respondents are neutral regarding the risk when making an offshore investment decision according to their views and experiences.
4	Important	Indicates that the risk is important to consider when making an offshore investment decision according to the respondents' views and experiences.
5	Very important	Indicates that the risk is very important to consider when making an offshore investment decision according to the respondents' views and experiences.

The eight risks identified in the literature review were confirmed as risks that are important to consider when making an offshore investment

decision. However, the respondents rated the risks' level of importance differently as indicated in the figure below.

Figure 1. Offshore risk', order of importance

The above figure indicates that market risk should receive the most attention when considering investing offshore and technological risk should receive the least attention. When rating the importance of considering market risk during an offshore investment decision, 67% of the respondents regarded market risk as very important, while 33% regarded market risk as important. Market risk incorporates, to a lesser or greater extent, political decisions in offshore countries, monetary and fiscal policies, which could lead to losses if they are not in favour of investments in the country. Investors need to track the market trends in the offshore country, and unstable markets should not be considered.

Of the respondents, 67% regarded interest rate risk as very important to consider when making an offshore investment decision. Seventeen per cent regarded interest rate risk as important and the other 17% were neutral as far as interest rate risk is concerned. Interest rate fluctuations could negatively affect a perfect investment plan. Highly volatile markets have higher risks in relation to lower volatile markets. When diversifying investments in offshore countries, investors need to

strike a good balance between these markets. Changes in interest rates influence the value of the investor's stocks, cash and shares. As a result, the risk of a particular investment could increase as interest rates increase, and decrease as interest rates decrease. Offshore investors need to be mindful of these movements.

In terms of liquidity risk, 67% of the respondents rated it as very important, while 33% regarded it as important to consider when making an offshore investment decision. Liquidity risk can be regarded as one of the key risks an investor should mitigate when investing offshore. Liquidity management will not only ensure that risks are kept minimal but also that opportunities presented are exploited.

Sixty-seven per cent of the respondents regarded legal risk as very important, 17% rated it as important and 17% were neutral. Offshore investors' objectives may be compromised when legal risk is not adequately addressed before investing in a foreign country. It could, for example, result in the cancellation of offshore investment contracts, penalties, fines and termination of trading licenses, which will be

detrimental to the investors' objectives in the international arena. However, when legal risk is managed effectively, offshore investors can realise great benefits.

When rating the importance of exchange rate risk during an offshore investment decision, 66% of the respondents regarded exchange rate risk as very important. Seventeen per cent regarded exchange rate risk as important while the other 17% regarded exchange rate risk as unimportant. The movement in exchange rate can enhance or reduce the value of an offshore investment; hence, it is vitally important to minimise this risk when making offshore investments.

Fifty per cent of the respondents regarded inflation risk as very important, 33% rated it as important and 17% were neutral. When the general price level rises, each unit of currency buys fewer goods and services. Thus, it is important for offshore investors to take into account the inflation rate in the offshore country concerned and forecast the future trend and the potential influence on the planned investment.

The respondents were equally divided between very important and important when rating the credit risk and technological risk during an offshore investment decision. Although these risks were rated the lowest, it does not mean that they cannot be detrimental to an offshore investment. As such, it is also necessary to consider the potential influences of these risk types during an offshore investment decision.

Although the respondents rated the risk types in order of importance, not one risk type was rated as irrelevant or unimportant. Therefore, it can be deduced that all the identified risk types should be analysed and evaluated as part of an offshore investment decision. However, the success of an offshore investment cannot be limited to identifying and ranking the risks. The overall planning and execution of an offshore investment strategy remains vital for success.

5. Conclusion

The aim of this paper was to identify risks which investors are exposed to when investing offshore and ranking these risks in order of importance. The literature review discussed risks to be considered when investing offshore. This was followed by a research methodology which was used in this paper. Then the findings were discussed, which ranked the risks in order of importance according to the views and experiences of the respondents.

Offshore investments are based on the freedom to trade with the rest of the world, freedom to invest where the profits are favourable, and generally speaking the freedom to do business in any country. However, to exploit these international flows in profitability and safety conditions, it is

necessary to identify and manage risks that could arise in the receiving economies.

As a global player, South African investment corporations exchange trades with corporations in other countries. These trades are, however, not risk free and trading in foreign markets can lead to corporations suffering losses if their investment plans are not well formulated and executed.

From the literature review, it is evident that there are many risks to consider when investing offshore. The risks were considered individually to assess the possible impact on offshore investments and thereafter ranked, amongst others, in terms of importance. Market risk was rated as the most important risk to consider when investing offshore, while technological risk was rated the least important.

In order of importance, the risks that should receive the highest attention from most important to the least important were ranked as follows:

1. Market risk
2. Interest rate risk
3. Liquidity risk
4. Legal risk
5. Exchange rate risk
6. Inflation risk
7. Credit risk
8. Technological risk

The above priority list is not exclusive to all offshore investors. However, it can be used as a guideline when considering risks of investing offshore.

References

1. Appel, M. 2008. Inflation targeting to stay, Mboweni. *BuaNews*, 6 August: 9.
2. Aven, T. 2003. *Foundations of risk analysis: A knowledge and decision-oriented perspective*. England: Wiley.
3. Bodie, Z., Kane, A. & Marcus, A.J. 2004. *Essentials of investment*. 8th Ed. New York: McGraw-Hill.
4. Chapman, R.J. 2006. *Simple tools and techniques for enterprise risk management*. Chichester: Wiley.
5. Frenkel, M., Karmann, A. & Scholtens, B. Ed. 2004. *Sovereign risk and financial crises*. New York: Springer.
6. Gitman, L.J. & Joehnk, M.D. 2008. *Fundamentals of investing*. Boston: Pearson Addison Wesley.
7. Huang, A. 2009. *Moody's bond ratings, San Jose State University*. *Economic 202* [Online]. Available: <http://www.sjsu.edu/faculty/watkins/econ202/risk.htm> [Accessed 15 April 2009]
10. Lucas, P. 2009. *Risk analysis is an essential tool. Global investment strategist of Ashburton Investment Managers in Jersey* [Online]. Available:

- <http://www.btimes.co.za/98/1025/btmoney/money12.htm/> [Accessed 19 January 2009].
11. Madura, J. 2009. *International financial management*. 9th ed. United States of America: Thomson South-Western.
 12. Madura, J. & Fox, R. 2007. *International financial management*. United States of America: ThomsonSouth-Western/Cengage Learning.
 13. Moran, T.H. ed. 1998. *Managing international political risk*. Massachusetts: Blackwell.
 14. Rose, P.S. 1999. *Commercial risk management*. 4th ed. Singapore: Irwin/McGraw.
 15. Rose, P.S. & Hudgins, S.C. 2005. *Bank management & financial services*. 6thed. New York: McGraw-Hill.
 16. Saunders, A. & Cornett, M.M. 2008. *Financial institutions management: A risk management approach*. 6th ed..New York: McGraw-Hill.
 17. Sharpe, W.F. 2007. *Investors and markets: Portfolio choices, asset prices and investment advice*. New Jersey: Princeton University Press.
 18. Thorne, M. & Cloete, S. 2010. *Premiums & problems*. Article Edition No. 100. Cape Town: Old Mutual.
 19. Tracy, B. 2005. *Getting rich your own way: All your financial goals faster than you ever thought possible*. New Jersey: Wiley
 20. Wagner, N. 2008. *Credit risk: Models, derivatives, and management*. Boca Raton: CRC Press
 21. Whittaker, N. 2009. *How do interest rates affect investments?* [Online]. Available: <http://ezinearticles.com/> [Accessed 20 August 2009].
 22. Young, J. 2006. *Operational risk management: the practical application of a qualitative approach*. Pretoria: Van Schaik.