Country Risk Assessment

A Guide to Global Investment Strategy

Michel Henry Bouchet
Ephraim Clark
and
Bertrand Groslambert

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Preface

For a long time, country risk belonged to the category of issues that are difficult to understand because information is fragmented or incomplete. Banks knew neither the size of their loan exposure nor to which countries they had lent. Bankers were mesmerized by international eurocredit syndication. Corporations and investors had neither the information nor the means to assess, much less cover, the risks lurking in the shadows of seemingly profitable cross border transactions. Country risk was considered an opaque, unpleasant fact of life better left in the hands of the IMF and the export credit agencies.

In today's global economy wired to the web, however, all this has changed. Information has become abundant, cheap and almost instantaneous as countries compete in transparency to attract foreign direct investment and portfolio capital. The problem is no longer a lack of timely information. It is rather one of deciding which information is important and then knowing how to process it. Country risk involves complex combinations of macroeconomic policy, structural and institutional weakness, bad governance, and regional contagion wrapped in a paradigm of high levels of trade, capital and information flows.

The aim of this book is to provide the framework for understanding the nature of country risk, its sources and its consequences as well as the tools available for judicious country risk assessment in the context of international business and investment. It does so by combining theoretical analyses with a number of practical observations that stem from the authors' market experience with the modest hope of shedding light on a complex but fascinating issue.

Acknowledgments

A number of our colleagues gave us the benefit of their comments and criticism as we were writing this book. We are deeply grateful to them and to our respective institutions, CERAM Sophia Antipolis, ESC Lille and the University of Middlesex. The project of this book received a decisive impetus at the time of the 2001 Finance Symposium jointly organized by IAFE and the CERAM Global Finance Chair that gathered a number of keynote speakers from the international academic community, the rating agencies, the banking industry, and official financial institutions. Lively and fruitful discussions involved a unique combination of scholars including Nobel Laureate Dr. Myron Scholes and Dr. Benoît Mandelbrot, as well as panelists from official institutions such as the ECB, the World Bank, the NY Fed and the BIS. We also wish to thank Michael Payte (Europe Chairman of the International Association of Financial Engineers) and Michael Howell (Crossborder Capital) for useful inputs, as well as Stefano Gori, Georg Merholz, Christoph Moser, and Madjid Touabi for valuable research assistance. We are also indebted to many colleagues in the markets and the scholarly community; too numerous to name individually in this restricted space but nonetheless the target of our everlasting thanks.

Foreword
By Professor Campbell R. Harvey

When I began working in emerging markets more than 10 years ago, the topic was not fashionable and received little attention, mainly because of the cost associated with obtaining comprehensive information, and due to a lack of quality and timely data. On the contrary, at that time, the hot topics were derivatives, M&As, stock market bubbles, LBOs, and the like. When I jumped into this field, emerging markets were regarded as an exotic risk species – good for portfolio diversification and return enhancement strategies but requiring stamina.

Since then, emerging markets have experienced a huge surge of interest generated by their economic dynamism and marked by bouts of volatility and financial crises. By the early 1990s, developing countries were barely recovering from the 1982 global debt crisis only to be rocked by the Mexican peso crisis of 1994, the East-Asian meltdown of 1997, the Russian default of 1998, the Brazilian crisis of 1999 and the ongoing Argentine catastrophe of the new century. Each crisis was a "surprise" to analysts, each was different from the other and they all differed from crises in the more mature capital markets in the OECD countries. All this seems to have awakened investors, traders and businessmen to the importance of country risk assessment and the specific approaches to tackle it.

This book, then, is a welcome initiative. The authors present the content and the tools of modern country risk assessment, both qualitative and quantitative. The book is comprehensive. It includes the traditional techniques of ratings, special reports, Monte Carlo simulations and discriminant, logit and regression analysis, as well as the more modern techniques of value at risk, non-linear and non-parametric estimation, and the sophisticated, cutting edge models developed in the credit risk literature. The authors analyse the advantages and disadvantages of the qualitative and quantitative techniques they describe and show how country risk assessment can be integrated into the overall decision making process. They recognize that country risk assessment must take into account a wide array of parameters including institutions, sociopolitical structures, demographics, culture, religion, economic infrastructure, and legal and regulatory issues. They also recognize that the powerful tools of modern financial theory and practice cannot be neglected either. Their presentation and illustration of risk exposure includes equity and portfolio investment, direct investment, international credit, and trade. They also show that in the last analysis risk assessment is only as good as the quality of the underlying information.

In this uncertain world, I am sure that Michel Bouchet, Ephraim Clark and Bertrand Groslambert have applied their knowledge and wide experience to write a definitive reference book.

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1
Introduction

1.1 AN HISTORICAL PERSPECTIVE

Following the numerous successes it had met with during the flotation of shares and bonds in the capital markets, Baring Brothers was eager to underwrite a loan to be issued by the Buenos Aires Water Supply and Drainage Company. However, the demand was not there and this operation proved to be a failure, leaving the investment bank holding the bulk of the debt. In the meantime, after an extended period of investment boom, the major central banks had decided to substantially increase their discount rates. This tightening of the global liquidity prevented Barings from refinancing at affordable cost and rapidly made its situation untenable. The deterioration of the economic conditions in Argentina hastened an international financial crisis and drove Barings to the verge of bankruptcy. Then, because of contagion effects, Brazil was next on the list. Its currency as well as its stock market collapsed, causing a sharp economic recession.

Does this story sound familiar? Well, any resemblance to an existing situation is probably not coincidental. However, the aforementioned events do not relate one of the recent crises experienced by many emerging markets over the last decade, but actually refer to what is known as the 1890 Baring crisis, more than a century ago. This example illustrates one of the many similarities that can be found when comparing the current period with the prevailing conditions in the nineteenth century.

With the end of Bretton Woods in 1971, and more particularly since the beginning of the 1990s, the world economy has been characterized by its globalization. The fall of communism has permitted the rise of the single American superpower, replacing the *Pax Britannica* of pre-World War I with *Pax Americana*. The economic liberalism that started to be implemented in the industrialized nations by Margaret Thatcher in 1979, and later on was extended to the developing countries by the IMF's adjustment programs, looks like the "laissez faire" policy of the Victorian epoch. Most financial markets are now fully deregulated and capital flows freely circulate all around the world. As a consequence, in the 1990s and for the first time since 1913, the structure of the international capital flows was marked by the return of portfolio investments, especially in the form of bonds and equities. Therefore, exactly like a century ago, "we enjoy at present an undisputed right to place our money where we will, for Government makes no attempt to twist the system into a given channel, and every borrower – native, colonial and foreign – has an equal opportunity for satisfying his needs in London" (*The Economist*, 20 February 1909, in Baring Securities, 1994).

Regrettably and similarly, this also corresponds to a strong increase in the frequency of economic crises. As stated by Krugman (2000) when comparing the current events with the period 1945–1971: "The good old days probably weren't better, but they were certainly calmer." The debt crisis of the 1980s, the Chilean collapse of 1982, the bursting of the European Exchange Rate Mechanism (ERM) in 1992, the debacle of the Mexican peso in 1994, the Asian disaster of 1997, the Russian default and the American bailout of LTCM in 1998, the Argentine chaos in 2001/2002, all demonstrate an accrued volatility of the international economic system. In the same vein, the nineteenth century was regularly shaken by financial crashes. In the years 1836–1839, seven states of the then emerging United States defaulted. A short time later, the railroad boom turned into a speculative bubble and eventually led to the panic of 1857. Turkey, Egypt and Greece defaulted on their debt in 1875–1876. Australia and Canada did the same in 1893, and were followed by Brazil and Mexico in 1914. All through the nineteenth century, speculative mania, financial euphoria, and sharp crises accompanied the economic take-off of the industrial revolution.

Does this mean we are left in exactly the same situation as the one prevalent in the age of the gold standard? Probably not. However, many observers agree on the growing instability of the economic system and believe that "the likelihood of escaping economic and financial crises in the years ahead seems small" (Kindleberger, 2000).

Parallel to this increasing volatility, feeding on and fuelled by globalization, more and more firms invest, trade and compete outside of their home market. Hitherto reserved for the biggest companies, even the smallest firms have started to reason on a global basis. Thus, between 1950 and 2000, the ratio of merchandise exports to world GDP rose from less than 10% to almost 20%. This means that firms are more and more internationally exposed, and national economies are increasingly interlinked. This economic integration translates into a higher sensitivity to foreign events. Consequently, international trade is more and more crucial for companies and countries alike. Furthermore, as the world political leadership is increasingly wielded by the industrialized countries in general and by the United States in particular, there is evidence of a backlash against these countries. In this context, their firms' interests abroad have shown themselves to be especially vulnerable. As the former US Ambassador Paul Bremer outlined: "In the past 30 years, 80% of terrorist attacks against the United States have been aimed at American businesses" (Harvard Business Review, 2002). All this demonstrates the growing importance of a reliable risk management system based on accurate country risk assessment methods.

Forecasting is at the core of all decision-making in the management field. Businessmen must plan and anticipate what the future will bring. They must then make their choices based on their analyses, taking into consideration how today's choices are likely to affect their companies in the future. This implies a certain amount of risk. The ability to look ahead and to take on risk is a major determinant in the frontier between Modern and Ancient times. As Bernstein (1996) put it, "the transformation in attitudes toward risk management has channeled the human passion for games and wagering into economic growth, improved quality of life, and technological progress".

Until the Renaissance, men did not generally try to forecast the future. This was reserved for the Gods. At best, the Gods could possibly deliver their views through an oracle such as the Pythia at Delphi. Starting in the sixteenth century, though, a series of mathematical discoveries enabled mankind to reconsider its position on this issue. Indeed, from this date, Pascal, Fermat, Bernouilli, de Moivre, Laplace and Gauss, to name just a few, progressively built what became the theory of probability. This branch of mathematics created the toolbox to deal with the future in a rational and orderly manner. At the end of the nineteenth century, it led to the conclusion that everything could be measured, either with a deterministic or with a probabilistic approach. Risk was thought to be under control.

However, the twentieth century was to challenge this optimistic vision. Two world wars and the Great Depression showed that even the unthinkable could happen. This altered the perception of risk and caused researchers to redefine it. In the 1920s, Knight introduced the notion of uncertainty as opposed to the notion of risk. Whereas risk can be appraised with probability, uncertainty is not measurable. This distinction was well retranscribed by Keynes (1937) in his famous statement: "By 'uncertain' knowledge . . . I do not merely distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty; nor the prospect of a Victory bond being drawn . . . Even the weather is only moderately uncertain. The sense in which I am using the term is that in which the prospect of a European war is uncertain, or the price of copper and the rate of interest twenty years hence . . . About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know."

There may be several reasons why "we simply do not know". First, the system may be too complex to be measured. In this case, the theory of chaos explains the situation by saying that it contains too many degrees of freedom, and is therefore unpredictable in the long run. Alternatively, it may be because we don't have a long enough time series to extrapolate the underlying probability law. For instance, many economic variables follow certain probability laws of "rare events", such as Pareto's law. In order to be accurately estimated, these types of distributions require extremely large empirical databases, which are hardly ever found in real life. Lastly, another argument could lie in the permanently changing and inherently unstable nature of the environment. To draw on the past in order to infer the probability of future occurrences would be completely misleading, if a structural change took place in the meantime.

If the size of the population under scrutiny is sufficiently large (in the billions) to be valid for statistical appraisal and provided it is unaware of the existence of the science of Psychohistory, then Hari Seldom demonstrated that Psychohistory could predict the behavior of human societies over at least 30 000 years. Psychohistory is "a branch of mathematics which deals with the reactions of human conglomerates to fixed social and economic stimuli" (Asimov, 1967). Unfortunately, or rather maybe fortunately, this science has not been invented yet, except in the imagination of the famous science fiction novelist, Isaac Asimov. Today, organization science, political science, economics, or country risk are still light years away from Psychohistory. Nevertheless, we can reasonably expect from them a certain ability to anticipate social changes. The objective of this book is to explore the question for country risk. What is the state of the art in this field? What are the various country risk assessment methods? Do they rely on modern science or are they merely based on intuition and subjective perceptions? Can we reasonably measure country risk with a probabilistic view? Or do we rather face the type of uncertainty as defined by Knight, the one which cannot be addressed with probability laws? In April 1982, *Institutional Investor* ranked South Korea below Mexico. In August of the same year, Mexico defaulted and triggered the international debt crisis of the 1980s. Meanwhile, Korea initiated a period of unparalleled economic growth that would increase its per capita GDP in US dollars fivefold over the next 20 years. In December 1986, *The Economist* tried to detect which countries were at the greatest risk of becoming unstable in the following years. They found that Chile was in the very high-risk category alongside Nigeria and Zaire, while Venezuela and Brazil were in the very low-risk category, like Taiwan and Singapore. As these selected examples clearly illustrate, risk management, and country risk in particular, has proved to be a very difficult task. No one method is able to perfectly assess country risk. However, taken as a whole, the methods of country risk assessment provide a framework for analysis and some necessary guidelines to tackle the issues at hand.

When considering an investment abroad, it is essential that managers do not blindly follow the general consensus. Based on the methods presented in this book, they must take into account their own features, so as to derive their own evaluations. In addition, they should regularly question the validity of their models. They should wonder what could make them defective in the future, whatever their degree of success in the past. As Bernstein (1996) explains: "The science of risk management sometimes creates new risks even as it brings old risks under control. Our faith in risk management encourages us to take risks we would not otherwise take . . . Research reveals that seatbelts encourage drivers to drive more aggressively. Consequently, the number of accidents rises even though the seriousness of injury in any one accident declines." Furthermore, the Minsky Paradox of Tranquility is never far away, just waiting to lull investors' awareness. This paradox postulates that after a long enough period of relative tranquility, entrepreneurs and banks tend to become complacent about economic prospects. Little by little, they start to take more risk, going for more debt, and hence making the system more vulnerable. This may be what happened in South East Asia in 1997, when so many investors were trapped, unprepared to bear such a high risk. "Only the pathological weakness of the financial memory, . . . or perhaps our indifference to financial history itself, allows us to believe that the modern experience of Third World debt . . . is in any way a new phenomenon" (Galbraith, 1994).

Finally, we should keep in mind that it is precisely the difficulty of estimating the risk that can make the investment opportunities attractive. An anecdote by Jean-Louis Terrier, the founder of the French rating firm Nord Sud Export, illustrates this point. A few years ago he had a discussion with one of his clients, a wealthy and quite secretive Belgian entrepreneur, who, every year, was very impatient to read the annual country risk ratings. To Terrier's utmost surprise, the man confessed to him that he wanted to be sure his investments were made effectively in the riskiest countries, those able to generate the highest returns.

1.2 OUTLINE OF THE BOOK

Various definitions and several terminologies exist to deal with the risk related to a foreign investment. In this book, we define country risk as all the additional risks induced by doing business abroad, as opposed to domestic transactions. When a firm starts to expand internationally, it is faced with a new environment, composed of different risks and uncertainties, which it is not used to dealing with. Country risk encompasses all these specific sources of potential difficulties encountered when investing overseas, ranging from political and social risks to macro- and microeconomic risks.

This book should allow the reader to get an insight into the nature of risk when investing in a foreign country. Based on the three authors' experience, it combines a rigorous, theoretical treatment of country risk with some very concrete and practical illustrations. It aims to present and analyze most of the existing country risk assessment methods. It also provides a broad overview of the country risk field with an emphasis on the specific nature of the emerging countries. It should allow professionals to explore the origins of country risk, to understand the assessment process of each method, and to grasp their limits. Each approach has some pros and cons, depending on the nature of the investment and the type of risk under consideration. Practitioners should be able to choose which one is the best suited for their business. They could even decide to develop their own methodology. This text should also prove useful for academics in search of a reference book, and be appropriate for courses in business and economics.

The book is organized in three parts. The first one, comprising Chapters 2 and 3, provides the underlying background for country risk. The second part, from Chapters 4 to 8, investigates the various existing country risk assessment methods. It starts with the most qualitative approaches and ends up with the most quantitative ones. Then, because developing countries exhibit certain specific characteristics that set them apart at a generally higher level of risk, the last part, including Chapters 9 to 11, addresses the major issues specifically related to them. It reviews the economic and financial crises over the last few decades, the possible instruments to mitigate risks, and discusses the available sources of information.

Chapter 2 introduces and defines the concept of country risk. It investigates the numerous streams existing in the literature. Several approaches coexist and can be differentiated depending on their terminology, their definition of risk, the sources of risk they evaluate, or the nature of the investment they consider. Concerning the methodology, a major difference contrasts the quantitative line against the qualitative one. Further distinctions can also be found based on the historical period under examination. Finally, this chapter recapitulates and classifies the various types of country risk. It illustrates each of them with real-world examples.

A major element of country risk revolves around the capacity of the country to generate enough foreign exchange to maintain required levels of imports and service its foreign debt. In Chapter 3, we present the macroeconomic analyses that address this issue. The reader is provided with the theoretical foundations of certain economic and financial notions that are used extensively in the following chapters. We examine the process of internal economic adjustment caused by external disequilibrium. We look at the consequences of a devaluation on relative prices, incomes, and the composition of output and consumption. We then consider the consequences of external disequilibrium when a change in the exchange rate is avoided through offsetting transactions by the monetary authorities. Next, we present the monetary approach to balance of payments analysis and its more sophisticated cousin, the portfolio balance approach. We conclude with a presentation of some of the most commonly used tools for country risk analysis resulting from the foregoing approaches along with some new ratios derived from modern financial theory.

Chapter 4 investigates a range of qualitative assessment approaches to country risk. Qualitative analysis refers to the evaluation of the economic, financial and socio-political fundamentals that can affect investment return prospects in a foreign country. Instead of focusing on a range of ratios, ratings or indices that are supposed to "reduce" a complex situation into one single figure, the qualitative analysis aims at tackling the structures of a country's development process, to shed light on the underlying strengths and weaknesses. Usually, a robust qualitative approach leads to comprehensive country risk reports that deal with the following elements: (i) the social and welfare dimension of the development strategy; (ii) macroeconomic fundamentals; (iii) evolution, structure and burden of external indebtedness; (iv) the situation of the domestic financial system; (v) assessment of the governance and transparency issues; and (vi) evaluation of political stability.

Chapter 5 investigates the rating methods. It differentiates the global country risk approaches from the country credit ratings that are more specifically debt-oriented. The first group encompasses the methodologies developed both by specialized firms such as BERI, PRS, EIU, and by credit export agencies such as Coface. The second cluster gathers the main credit rating agencies, including Fitch, Moody's and Standard & Poor's, as well as country rankings published in *Euromoney* and *Institutional Investor*. They all provide estimations of the relative degree of risk and suggest methods to quantify it. Although some of them claim to be purely quantitatively oriented, they all require a fair amount of human judgment. In general, they correctly describe the present situation and are able to discriminate between very high and very low risk. However, they are sometimes defective, particularly when crises occur.

In Chapter 6, we briefly outline and review a wide range of techniques commonly used in risk assessment. We start with techniques that seek to determine an either/or outcome, such as discriminant analysis and logit and probit models. We then deal with regression analysis and model building and show how Monte Carlo simulations can be combined with model building to produce risk estimates. We also present value at risk and principal components analysis. We conclude the chapter with an overview of non-parametric techniques, artificial neural networks and multicriteria methods.

Chapter 7 focuses on how to quantify country risk and incorporate its effects in the investment decision. First, we look at the credit risk models and see how they can be applied to country risk to estimate default probabilities, maximum debt levels, implied volatility and credit value at risk. We then turn to the problem of country risk in portfolio and foreign direct investment. We show how country risk can be incorporated in the investment decision by adjusting either the cash flows or the required rate of return. We then present several methods for estimating the required rate of return to capture the country risk element. Finally, we show how the cost of country risk can be measured as a hypothetical insurance policy that pays off all losses accruing to political events.

Then, in Chapter 8, we address the issue of country risk from a portfolio investment perspective, and rely on modern portfolio theory to analyze this matter. Even though an *ex ante* optimum portfolio is difficult to build, this chapter recalls the potential benefits to be gained from international portfolio diversification. It explains how the Capital Asset Pricing Model can be extended to an international framework and shows the limits of these theoretical developments. It presents modified versions developed by practitioners such as the Bank of America or Goldman Sachs and shows that, although they do give some very rough estimates of the cost of capital and facilitate comparisons across countries, these practitioners' approaches are basically *ad hoc* and lack theoretical foundation.

With Chapter 9, we start a review of questions mainly concerning the developing countries. This chapter includes a comprehensive review of the debt workout process over the 1982–2002 period. It addresses the combined role of Paris and London Club restructuring negotiations to provide emerging market countries with debt relief and sustainable growth conditions. After two decades of official and private debt reduction, developing countries still remain heavily indebted despite a concerted refinancing strategy and the reduction of financial charges carried out under the aegis of international institutions. The chapter analyzes the evolution of indicators of solvency and liquidity. It concludes that the emerging market countries' debt ratios show little improvement. It observes that protracted signs of slower growth in OECD countries will have a long-term impact on developing countries' trade and capital market access, at a time when commercial banks have to contend with competitive and regulatory pressure to satisfy capital adequacy requirements imposed by supervisory banking authorities.

Chapter 10 addresses the various institutional and financial instruments investors and creditors can rely upon to mitigate country risk. Export cover, investment insurance, and a market-driven menu of financial innovations can enhance liquidity while reducing country risk. As a result of mounting risks in a more complex global market, investors and lenders try to mitigate their vulnerability. This can be done by obtaining "comfort" from official bilateral and multilateral agencies through insurance coverage or co-lender status. It can also be done through market-based instruments that alter an investor's risk exposure, thereby achieving superior risk–return combinations. These financial instruments include asset securitization, asset-backed securities, and debt conversion transactions that provide implicit access to a preferential exchange rate.

Chapter 11 tackles the crucial issue of sources of country risk information. Country risk analysis, indeed, is as good as the quality of the underlying information. The latter is the key behind decision-making, resulting in either good assessment or excess exposure with related losses. To anticipate and assess the riskiness behind macroeconomic discontinuities, investors and creditors need reliable data. As the global economy and the spill-over effects compound the magnitude and abruptness of country risk crises, timely information has never been so crucial in risk assessment and prediction. The chapter presents and assesses the various sources of country risk intelligence from both official and private origins, including international organizations, central banks and private risk agencies, as well as the academic community.

Finally, a comprehensive glossary supplies the reader with a list of risk-related economic and financial concepts with a view to shedding light on current country risk debates in the academic and practitioner communities.

REFERENCES

Asimov I, 1967, *Foundation*. London: Panther Publishing.

Baring Securities, 1994, *Cross Border Equity Flow*. London: Baring Securities, October.

Bernstein PL, 1996, *Against the Gods, The Remarkable Story of Risk*. New York: John Wiley and Sons.

Galbraith JK, 1994, *A Short History of Financial Euphoria*. New York: Penguin Books.

Harvard Business Review, 2002, Doing Business in a Dangerous World. *Harvard Business Review*, Apr, 80 (4), 22–3.

Keynes JM, 1937, The General Theory of Employment. *Quarterly Journal of Economics*, 51, 209–23.

Kindleberger CP, 2000, *Manias, Panics, and Crashes, A History of Financial Crises*. 4th edition. New York: John Wiley and Sons.

Krugman P, 2000, Crises: the Price of Globalization? *Proceedings*, Federal Reserve Bank of Kansas City, August, 75–106.

2
An Overview of Country Risk

2.1 A REVIEW OF THE LITERATURE

The literature on country risk uses several terminologies and has generated various streams depending on the definition that is retained, the sources of risk, the nature of the investment, the historical context, and the chosen methodology. These various approaches will be dealt with in the following paragraphs and are summarized in Table 2.1.

2.1.1 The Terminologies

Just a few years after many American firms were expropriated by the Cuban revolution, the notion of "political risk" began to emerge in the literature of the 1960s, with authors like Usher (1965) or Root (1968). At this time, as Zenoff (1967) wrote: "For many [companies with an overseas subsidiary] this venture is . . . profitable, fast growing, but still the stepchild." Indeed, the international landscape was changing. Decolonization was the order of the day and the newly formed countries were experimenting with their new political autonomy as more and more firms were awakening to the opportunities abroad and gradually increasing their exposure to foreign markets.

At the outset, researchers tried to assess the risk of investing abroad in terms of "investment climate" (Gabriel, 1966 or Stobaugh, 1969a,b). Recognizing that: "[political scientists] still disagree significantly on how to define political stability or instability, on how to measure the phenomenon and on what are the causal forces", Robock (1971) was among the first to advocate the necessity of a definition for this hitherto vague concept. Nevertheless, as the next decades demonstrated, this task proved to be more complex than originally anticipated and is still far from being resolved.

Consider the following quotes:

While there has been increasing academic interest in the intersection of politics and international business, it is still a relatively new and loosely defined field. Kobrin (1979)

Political risk often becomes a catchall term that refers to miscellaneous risks. Brewer (1981)

Despite an increasing familiarity with the term "country risk analysis," there are still many people in banking circles today who argue that such analysis is nothing more than a fancy description of what banks have always done . . . . Merrill (1982)

There is no consensus today as to what constitutes a "political risk," let alone an accepted methodology for anticipating and assessing overseas developments. Simon (1982)

Although political risk is mentioned often in the literature on international business, a consensus on the precise meaning of the term has not yet been achieved. Fitzpatrick (1983)

Researchers and analysts differ widely in the way they define political risk. Desta (1985)

Table 2.1 Various approaches of the literature on country risk

Terminologies	Definition of risk	Sources of risk	Nature of the investment	Historical perspective	Methodology
• Political risk • Country risk • Sovereign risk • Cross-border risk	• Performance variance • Negative outcome	• Sovereign interference • Environmental instability	• Foreign direct investment • Banking commercial loans • Portfolio investment	• 1960s–1970s • 1980s • 1990s–?	• Qualitative • Quantitative

Many in the academic field of political science do not immediately recognize the term "political risk" and do not associate it with their own regular pursuits.... Howell and Chaddick (1994)

The existence of these disparate notions of political instability raises questions about the "construct validity" of any empirical measures used in a study of the effects of political instability.
Rivoli and Brewer (1997)

As the foregoing quotations show, academics and practitioners are still short of a consensus about the scope of this field of research. The difficulty of reaching a comprehensive definition of "country risk" and agreeing on its meaning is further extended by the various terminologies used to deal with similar and/or overlapping issues. In the literature dealing with the risk of doing business abroad, the two terms most frequently encountered are "country risk" and "political risk". Less frequently, references to "cross-border risk" or "sovereign risk" can be found. "Political risk" is the oldest terminology and appears mostly in academic articles. "Country risk" began to be widely used in the 1970s. It was originally more professionally oriented in the sense that it aimed at addressing the concrete issue of a particular business in a particular country and was generally used by the banking industry. This stream of literature flourished in the aftermath of the international debt crisis of the 1980s. Desta (1985) notes: "Analysts in international lending institutions prefer to use 'country risk' or 'sovereign risk' as opposed to political risk." Reviewing the sovereign rating history and its methodological evolution, Moody's (2002) states: "In 1997, we changed the name 'sovereign ceiling' to 'country ceiling', because the ambiguous term 'sovereign' could be taken to refer sometimes to the country as a whole and sometimes to the government itself as an issuer." Table 2.2 reviews the literature dealing with the definition of country risk and distinguishes between the terms "political risk" and "country risk". The term "country risk" as opposed to "political risk" has been gaining ascendency because it has a broader meaning in that it can include any risk specific to a given country, whereas "political risk" restricts the risks to those that are exclusively political in nature.

2.1.2 Definitions of Country Risk

For some authors, risk is defined as a performance variance, whether it impacts the firm positively or negatively. Robock (1971) explains: "Yet, as in the case of other types of risk, political risk can result in gains as well as losses." For this group of researchers country risk refers to the "probability of occurrence of political events that will change the prospects for profitability of a given investment" (Haendel *et al.*, 1975). As an example, companies involved in the armored car industry in Argentina experienced a dramatic increase of their sales in 2001, because they benefitted from the growing political instability of the country. Kobrin (1979)

Table 2.2 Political risk versus country risk in the literature

Political risk	Country risk
Aliber (1973)	Citron and Nickelsburg (1987)
Aliber (1975)	Cosset *et al*. (1992)*
Alon and Martin (1998)	Davis (1981)
Brewer (1981)	Desta (1985)
Cosset and Suret (1995)	Eaton *et al*. (1986)*
Desta (1985)	Kennedy (1991)
Feils and Sabac (2000)	Marois (1990)
Fitzpatrick (1983)	Meldrum (1999)
Haendel *et al.* (1975)	Meldrum (2000)
Howell and Chaddick (1994)	Merril (1982)*
Kennedy (1991)	Nagy (1978)*
Kobrin (1978)	Rivoli and Brewer (1997)*
Kobrin (1979)	Robinson (1981)*
Marois and Behar (1981)	Roy and Roy (1994)*
Robock (1971)	Wilson (1979)
Root (1968)	
Root (1972)	
Rummel and Heenan (1978)	
Simon (1982)	
Stevens (1997)	
Usher (1965)	

*Articles with a specific focus on the banking industry.

and, more recently, Feils and Sabac (2000) belong to this cluster. Another approach adopts a more practical stance and analyzes risk as a negative outcome. With this meaning, risk will exist if it implies a possible loss or at least, as stated by Meldrum (2000), a potential reduction of the expected return. Root (1972), Simon (1982), Howell and Chaddick (1994) or Roy and Roy (1994) follow this route and consider that, when it occurs, risk negatively impacts the firm's operations and/or investments.

Thus, the notion of risk has different meanings and may be understood either as a performance variance or just as the likelihood of a negative outcome that reduces the initially expected return. However, as evidenced by March and Shapira (1987) or Baird and Thomas (1990), practitioners are more concerned by failing to achieve a given target performance than by the entire set of possible outcomes. Consequently it is more appealing to follow a downside risk approach as opposed to a total risk perspective. Indeed, while investors try to minimize their downside risk exposure, they want to maximize their upside risk sensibility. Some like Miller (1992) retain the concept of risk as performance variance because it "is widely used in finance, economics, and strategic management." Though the concept of downside risk was already mentioned in Markowitz (1959), it is mainly because of computational difficulties in handling this type of model as well as the assumption of normally distributed returns[1] that the variance was favored as a measure of risk. The paper of Nawrocki (1999) reviews the literature and presents the advantages of using a downside risk approach in lieu of a total risk stance. Even though Roy (1952) or Bawa and Lindenberg (1977) had already integrated the notion of downside risk into portfolio theory, it is only more recently that papers like those of Harlow

[1] If the returns were normally distributed (and consequently symmetric around the mean) both approaches would yield similar results.

and Rao (1989), Sortino and van der Meer (1991) or Miller and Reuer (1996) explored this route. Estrada (2000) and Reuer and Leiblein (2000) have emphasized the usefulness of the downside risk approach for studying emerging markets and international joint ventures. Moreover, many studies such as those of Aggarwal *et al.* (1989), Harvey (1995) or Bekaert *et al.* (1998) have established the skewness of the return distribution at the international level, thus offering a further case for the downside risk line versus the increasingly challenged choice of variance.

A look at the literature over the last 40 years shows that the country risk field, while encompassing a wide range of different situations, always refers to doing business abroad and to the specific risks it engenders, whatever the source of risk and the nature of the industry. Of course, the particular features of each investment or transaction type must obviously be taken into account. Yet, it is also necessary to adopt an overall perspective because the sources of risk all interact with each other and possibly impact several if not all sectors of an economy. For example, the Asian crisis of 1997/1998 that started in Thailand with the devaluation of the Thai baht had some economic causes, notably the misbalance of the current accounts, but also some political roots due to the so-called crony capitalism. Contagion effects then spread the crisis to its neighbors, including Malaysia that reacted on the political front by enforcing foreign exchange controls and restricting transactions in foreign currency. Many Asian economies were badly hit and barely avoided a collapse of most of their industries.

The definition proposed by Meldrum (2000) perfectly reflects these characteristics: "All business transactions involve some degree of risk. When business transactions occur across international borders, they carry additional risks not present in domestic transactions. These additional risks, called country risks, typically include risks arising from a variety of national differences in economic structures, policies, socio-political institutions, geography and currencies. Country risk analysis (CRA) attempts to identify the potential for these risks to decrease the expected return of a cross-border investment." This definition rejoins the very early articles of Gabriel (1966) or Stobaugh (1969a,b) that were concerned with how the "investment climate" in a foreign country may differ from the "investment climate" at home. It highlights the specific risks when doing business abroad, outside the national borders of the firm's country of origin. It is worth noting that country risk exists whatever the level of economic development of the country in question. Even the most economically advanced nations may generate a substantial degree of country risk. Finnerty (2001) noted that "many project finance professionals would argue that natural resource projects in the United States are exposed to political risk because of the proclivity within the United States to change the environmental laws and apply the new laws retroactively".

Except for the very tentative work of Meldrum (1999) based on a modified version of a supply-side Solow growth theory model, a comprehensive country risk theory is yet to be formulated. Up to now, the literature is simply building on the implicit assumption that, for a given country, imbalances in the economic, social and political fields are likely to increase the risk of investing there. Because of the multiplicity of the sources of risk, the complexity of their interactions and the variety of social sciences involved, an underlying theory of country risk is still missing. Such a conceptualization would greatly help to identify the variables at stake. It would make it possible to test the respective relevance of the various approaches on offer. So far, most of the research merely consists of a classification and a description of the various potential sources of risk, and the assessment methods turn these elements into numerical variables without any scientific justification. Fitzpatrick (1983) writes on the subject that "the literature is found to define political event risk rather than political risk".

2.1.3 Sources of Risk

A second type of division in the literature is based on the sources of risk. Kobrin (1979) or Desta (1985) identify two main streams. The first one only focuses on the governmental or sovereign interference with business operations. Weston and Sorge (1972) write: "Political risks arise from the actions of national governments which interfere with or prevent business transactions, or change the terms of agreements, or cause the confiscation of wholly or partially foreign owned business property." For this group of authors, such as Zenoff (1967), Aliber (1975), Baglini (1976) or Feils and Sabac (2000), country risk narrowly originates from adverse governmental or sovereign actions. The second stream of literature represented by Robock (1971), Root (1972), Haendel *et al.* (1975) or Rummel and Heenan (1978) refers to the environmental instability and its impact on business conditions. Their line provides a broader perspective and includes not only governmental sources of risk but also any other causes that may impede the efficient functioning of any foreign organization abroad. Fitzpatrick (1983) further refines this second approach and divides it into three categories. He identifies (1) "political risk in terms of occurrences of a political nature", (2) "political risk in terms of an environment rather than in isolation", where any change in the business environment may represent a risk, provided it can impact the firm's operations, and (3) a last category, where authors do not try to conceptualize the notion of "political risk" but rather merely concentrate on the consequences of operating "in countries where the environment is strange and not well understood", as written subsequently by Drake and Prager (1977).

2.1.4 Types of Investment

A third taxonomy can be found in the literature, depending on the nature of the investment undertaken by the foreign firm in the host country. In this manner, Meldrum (2000) analyzes the impact of various sources of risk based on four different investment types: direct investment/private sector, short term financial/private sector, short term loan to government and long term loan to government. However, most research focuses on a selected category of investment and carries out its analysis in this restricted framework. The three major groupings are (1) foreign direct investment (FDI), (2) commercial bank loans and (3) portfolio investment. Exporters could possibly be considered as a fourth group *per se*. However, they are rarely tackled in this way, probably because, even though their investment abroad stems from a commercial or industrial nature, the sorts of risks they run are more akin to those of the commercial banks or the credit export agencies. As Terrier (2001) puts it: "Obviously an exporter is not subject with an equivalent intensity to the same risks as a foreign direct investor. The former, like his banker for their common debt and his insurance company for possible default, is much less concerned by the political instability of a foreign country than the locally and permanently settled investor."

The first group deals exclusively with foreign direct investment and basically aims at answering the question raised by Stobaugh (1969a): "Where in the world should we put that plant?" Along these lines, Root (1968), Rummel and Heenan (1978), Brewer (1981), Stevens (1997) or Alon and Martin (1998) adopt an overall perspective and discuss country risk for FDI in a general context. Others like Bergara *et al.* (1998) prefer to concentrate specifically on industry-related investments. For example, they investigate the impact of political risk for electric utilities. Their work is often associated with studies of the project finance industry as, for instance, in Schwimmer (1995) or Spillers (1999).