COUNTRY RISK.
From theory to practice.

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SACE

Country Risk. From theory to practice.

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Abstract

The concept of country risk is not easily quantifiable and the difficulty of its measurement depends on the interaction of complex financial, economic, social and political variables. To condense all these variables into a single country risk index is not only impossible, but probably misleading. To understand country risk, there is no alternative other than a detailed and specific analysis. Rather than aiming for a "one size fits all" index, SACE's new approach breaks down country risk as much as possible to identify and analyze its different forms, manifestations, events. This approach proposes that every economic agent (i.e., exporters, banks, contractors, and investors) seeks its own path along a specific interactive country risk map, depending on the risk they face (i.e., credit risk, regulatory risk, political violence risk), and identify the most relevant insurance and financial products that an Export Credit Agency like SACE provides.

***Keywords*: country risk; credit risk; regulatory risk; political violence; export credit agency, exporter; lender; contractor; industrial investor.**

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1. Scope of work - Introduction

The concept of country risk is not easily quantifiable and the difficulty of its measurement is compounded by the numerous steps involved: i) the identification of the sources of risk; ii) the extrapolation of the risk-event unfolding process; iii) the estimate of the impact on a specific transaction/economic agent; iv) the means/actions undertaken to mitigate the impact before and after the event has occurred. As sources of risks are almost countless, the agents and the transactions involved numerous, the ability of the agents to respond to risks very different, the possibility of summarizing the country risk with a single score seems utterly unrealistic.

This paper is based on the premise that there is no single country risk and that every economic transaction/agent faces a specific set of country risks. Therefore**,** there cannot be a country risk map unless we are willing to cope with a level of abstraction that makes the map an unpractical and potentially misleading tool. To understand country risk, there is no alternative other than a detailed and specific analysis.

In the end, risk is like beauty: it lays in the eyes of the beholder. In the series of steps leading to (country) risk assessment, some agents will see opportunities (upside), while others will see risks (downside). And all of them will learn, following the wisdom of A. Hirschman, that "*each project comes into the world accompanied by two sets of partially or wholly offsetting potential developments: i) a set of possible and unsuspected threats to its profitability and existence; and ii) a set of remedial actions that can be taken should a threat become real.*" The answer to this uncertainty is creativity that "always comes as a surprise to us".

The approach proposed by SACE requires that every economic agent seeks its own path along a specific country risk map. As such, the number of maps is very large, depending on the degree of specificity with which the agent can define his/her expected transaction in a given country.

2. Breaking down Country Risk

A country is a very complex and multidimensional entity which presents a multitude of risk events impossible to account for. Country risk events are hard to predict since they are the result of the interaction of complex financial, economic, social and political variables. These variables, in turn, are very often not actuarial in nature; sometimes they are "historical events"; often they follow distributions with fat tails; sometimes they are extreme events (albeit more frequent than statistics may imply).

To condense all this information into a single country risk index is not only impossible, it is futile. The first step would be the identification of all major risk categories. Many categorizations have been attempted in this respect, though none of them is exhaustive. The second step would require the calculation of a score/rating for each risk. However, not all risks can be expressed in a numerical way. The third step would require the adding up of all the scores/ratings (assuming we would know the appropriate weight) to come up with a single index. This process would allow us to compare the risk index across countries. What would we actually compare?

The first step is certainly feasible and useful: an exercise that any economic agent operating in a foreign country should undertake possibly assisted by specialists to become aware of the main risks faced.

The second step, the scoring/rating process, though highly complex, would also be very useful provided its result is not seen as scientific but rather as a guide to further analysis: as we have come to appreciate over time, country risks are not actuarial in nature. The value of this step, therefore, is not a quantifiable result, but rests in the process of understanding the nature and dynamic of the risks.

Where the methodology of a "one" country risk index fails miserably is in step three: to produce an index by averaging out risks as numerous and diverse as those affecting any country. This would require adding up the scoring/rating of different risks un-weighted or weighted by an arbitrary number. If steps one and two are not accurate, averaging out would not be beneficial: the average of meaningless numbers is still a meaningless number. Inversely, if steps one and two have been carried out meticulously, is there a value added by blending everything in an arbitrary average?

In reality, what most country risk maps do is simply to compare different risk concepts (i.e. political risk of one country with sovereign risk of another country) producing inconsistent results of little use for the decision-making process of the economic agents.

In summary, a single country risk (map) incurs at least into the following four (4) major shortcomings:

1. Lack of completeness: it is impossible to identify ex-ante all risks possibly affecting a country. We do not have the foresight to do so and can never be sure that all possible events have been properly mapped out.

2. Uncertainty vs. risk: even the risks that can be identified will not necessarily play out according to some (normal) distribution. This is especially true for risks that are social/political in nature. Risks that can be mapped out, can hardly be quantified.

3. Specificity of events: risks that have been mapped out and their unfolding quantified when possible will still have different impacts. Economic agents react differently to risks, depending on the nature and the features of their transactions, as well as their ability (creativity) to cope with risk.

4. **Heterogeneity of risks:** even when all the above is taken into account, adding risks different in nature is still an impossible task. There is not a meaningful numeraire to weigh risks and make them comparable.

The approach of "one country risk" was probably justified thirty years ago when the world was divided into market economies and State (or centrally planned) economies. Credit risks in State economies were in some way a variation of the "Sovereign risk". Companies were owned by the State and their creditworthiness could easily be implied from the creditworthiness of the sovereign. Financial repression was the norm and political will was the main driver of credit allocation; banks (mostly public) were also a proxy for the State. Resources were centrally planned and market price did not play its normal signaling function. Markets where substituted by an administrative allocative systems, leaving room for political interference (e.g. political risk). A classic example is the foreign exchange market, the key market for foreign players, that was saddled by administrative controls. Ownership and exchange rights were subject to the vagaries of the State, often "predatory" in nature; the system of checks and balances, typical of a democracy, was not in place due to the lack of independent political powers: legislative, judiciary and administrative (governing) authorities. In such a context, risk was so high, widespread and at the same time so interrelated with government action to justify the use of "one country risk" concept.

In such scenario, it made sense to compare the country risk of two countries and conclude that Country A was, for instance, riskier than Country B. All economic risks could be reduced to the Sovereign (State) risk, for the State controlled the whole economy through ownership and/or administrative processes. Political risk (the risk of political decisions) was a good proxy for country risk. Some countries still today fall into this category, but their number is steadily declining. The majority of the economies today are mainly market economies, even in cases were a democratic system has not fully developed yet. Unlike centrally planned economies, market economies are complex systems that can hardly be summarized by one synthetic "country risk" score.

Credit risk, for instance, is now incredibly diversified across entities (i.e. Sovereign, State-owned companies, Sub-Sovereign entities, Banking, Corporate – Small, Medium, Large); **assets** (Loans, Bonds, Structured Assets, etc.); **economic and financial structures** (through the so called "risk mitigants"). Governments still interfere with markets in different ways and any change of law is a potential risk, but this happens in a context where, on the one side, checks and balances are in place and, on the other side, arbitrary decisions are limited to safeguard the integrity and functioning of markets.

In other words, in a market economy "political risk" is bound. It is still there, but it is more nuanced. Political decisions still affect economic agents but they are constrained by the need to follow internationally recognized "rules of the game". They must be non-discriminatory in nature and when they are not, must be provided compensation. Political risk can also have an upside, as it often produces a "credit enhancement", like in the case of the explicit and implicit State support to financial sectors. Political risk is often managed through actions such as lobbying, the purchase of market protection, the diversification of portfolio.

If defining "country risk" in one score is so complex, why should we strive to compile a map of country risks? SACE's new country risk map has been conceived by having in mind the needs of the businessman, the analytic rigor of the academia, and the purpose to help general readers to better understand the complexity of the current state of the world. Why should somebody be satisfied to know that Country A is riskier than Country B when what really matters is the specific nationalization risk, or the credit risk of a given corporate, or the credit risk of the sovereign, or the breach of contract risk, or the political violence risk stemming from forthcoming elections? Why be interested in the average (leaving aside how arbitrary the average is) when actually being exposed to specific individual risk?

Rather than aiming for a "one size fits all" index, the SACE's new approach breaks down country risk as much as possible to identify and analyze its different forms, manifestations, events. Risk is everywhere; it depends on who is the foreign economic agent; who is the domestic counterpart; the nature, sector and location of the transaction, as well as its size and structure; etc. The new approach proceeds step by step, following a specific map to a given agent for any given transaction.

Where sensible, the methodology relies on available rating (e.g. sovereign and large banks and corporate ratings); **in other instances on a scoring based on country indicators** (i.e. the track record on nationalization events; political and governance structures leading to possible civil unrest). When the risk is specific, to a given counterpart (i.e. a small corporate buyer) the methodology is further complemented with a preliminary assessment of the credit quality of the specific counterpart; when risk is specific to a foreign investor, it is tuned to the sector or location of the asset, with the possibility for the interested agent to contact and discuss the specifics of the investment with SACE's risk analysts.

The business of SACE is to sell insurance policies and guarantees. To follow this new approach is also to guide economic agents to a better perception of their risks and, ultimately, to the right risk management strategy which in all likelihood will include the purchase of SACE's products.

3. A new approach

Different domestic players have commercial/financial relations with different foreign counterparts and thus they are exposed to different risks. The aim of this chapter is to associate those risks with domestic agents based on the business they normally undertake abroad, identifying the most relevant insurance and financial products that an Export Credit Agency like SACE provides. More specifically, the chapter focuses on the interplay between three different types of risk (Credit risk; Regulatory risk; Political violence risk) and four economic agents (i.e., Exporters, Banks, Construction firms, Foreign investors). This is also the focus of SACE website risk maps, which provide users with specialized preliminary risk assessment and advisory tools.

3.1.1 Credit risk

<u>Credit risk</u> is the risk that a foreign counterpart fails to meet its contractual obligations. This type of risk, also known as default risk, depends on the foreign debtor's ability or willingness to honour its payments (i.e., bonds, trade receivables, short or medium-term loans). This risk arises also when the foreign counterpart cancels the order during production.

The nature of the counterpart involved in the transaction (i.e. sovereign, banking, corporate) **is key to the credit risk analysis and is at the core of the credit risk assessment.** The counterpart's ability to fulfil its financial obligations depends not only on its creditworthiness or "economic health", but also on national and international factors that may eventually affect its ability to pay. "Willingness to pay" depends on the counterpart's credit history, which in turn is assessed by considering the counterpart's track record of payments. Domestic or international tensions (on-going or potential) potentially affect its "ability to pay" of fulfil any contractual obligation.

Exporters and banks are directly exposed to the credit risk of the counterpart to the transaction. Additionally, in transactions where the foreign counterpart acts as guarantor of the foreign buyer/debtor, credit risk is the result of a "joint default probability": risk of non-payment by the buyer/debtor and failure of the guarantor to honour the guarantee in case of insolvency of the buyer/debtor[2]. Credit risk may also affect **construction firms** in the event of cancellation of the contract or non-payment of amounts due on the basis of milestones. A counterpart's creditworthiness may also influence the probability of undue calling of bonds (i.e., *bid, advanced payment, performance, warranty bonds*) with implications for exporters and contractors. Credit risk can also affect foreign financial **investors** investing in obligations issued by local entities. By nature these financial assets tend to be liquid and diversified and they may be shielded against through different financial instruments (e.g. CDS). Unlike financial investors, industrial investors own (alone or in partnership with local partners) productive assets, which are typically more concentrated and illiquid. Their assets are especially exposed to regulatory and political violence risk events.

3.1.2 Regulatory risk

Regulatory risk is the risk of losses for foreign economic agents resulting from discriminatory actions undertaken by a local government. This risk arises when a government adopts laws or regulations that either directly or indirectly:

i) Deny foreign agents of ownership or control of assets held in that country (**risk of expropriation**, whether direct or creeping, confiscation, nationalisation);

[2] In some cases, especially in the case of strategic projects where the buyer/debtor is a public counterpart, the guarantor is an entity committing the "full faith and credit" of the sovereign (usually the Central Bank or the Ministry of Finance).

ii) Unilaterally alter or breach contractual obligations undertaken by the government or public entities with the investor (e.g., a concession or a power purchase agreement) (**breach of contract risk**);

iii) Prevent the foreign agent from converting or repatriating the assets or their cash-flow (**transfer and convertibility risk**).

Assets exposed to regulatory risk can be tangible (i.e., machinery and equipment) and intangible (i.e., licences and concessions, e.g. mining rights). Also profits resulting from investments made abroad can be exposed to it. Regulatory risk involves “discriminatory” actions, i.e. actions affecting selected parties of the transaction (presumably foreigners, thus favouring local players), possibly imposed as a result of unfair legal/judicial procedures and involving predetermined and inadequate compensation. When such actions are applied to all economic agents in a country (i.e., national and foreign), they are no longer discriminatory and represent ordinary business risk.

Regulatory risk assessment must include the analysis of the political and operational context of the foreign country, as well as its economic and financial standings. Variables related to governance and rule of law are particularly relevant when assessing risk of expropriation and risk of breach of contract. Economic and financial indicators, instead, deserve greater attention in the evaluation of the risk of transfer.

Industrial investors are typically more vulnerable to regulatory risk. Discriminatory measures put in place by the local government may undermine not only their ability to enforce ownership and/or actual control of the assets, but also their right to transfer profits and dividends. **Construction firms** may also be directly affected by the risk of expropriation/confiscation of machinery and equipment temporarily exported and necessary for the construction works. They may also be exposed to transfer risk for the repatriation of profits in local currency. Regulatory risk can affect **exporters and banks** directly in case of regulations that restrict/prevent convertibility and/or transfer of locally-sourced proceeds in the local currency; indirectly, when regulations affect the creditworthiness of the counterpart and reduce the probability of repayment.

3.1.3 Political violence risk

<u>Political violence risk</u> is the risk of violent episodes leading to losses of assets or income for a foreign agent. This risk stems from political events (e.g. riots, national or international wars, revolutions, sabotage, terrorist attacks) and may lead to physical damage (e.g. damage or sabotage of temporarily exported machinery and equipment) and/or financial losses (e.g. delays or interruptions of the production process with subsequent decrease of cash flows).

Political violence risk is assessed on the basis of social or institutional weaknesses in the country, such as the existence of internal or external disputes/conflicts, the degree of accountability and stability of the government.

All economic agents – domestic and foreign - operating in a country are potentially exposed to this risk to a degree that varies with the location of the business, the strategic relevance of the sector, and the visibility of the assets. **Investors** and **contractors** are directly affected by it when political violence either leads to physical damage or financial losses in the value of the assets (investors) or prevents works from being executed as planned (contractors). **Exporters** are also directly exposed to political violence risk when temporarily exporting equipment and machinery. **Banks** face it as well as long as violent political actions result into damage to debtor's assets.

3.1.4 Market risk

<u>Market risk</u> is the risk that changes in macro prices (i.e., inflation, exchange and interest rates) **reduce the value in local currency of the foreign agent's fi-**

nancial assets (i.e., bonds, equity, loans) leading to a direct (if the foreign agent owns the financial asset) or an indirect (if the creditworthiness of the counterpart is affected by the price change) loss. Such changes are often related and are particularly damaging if they occur suddenly, affecting market liquidity and foreign investors' ability to divest their asset timely.

The likelihood of macro price changes is linked to the foreign country's current conditions and to the structural vulnerabilities of its economy. All local counterparts (sovereign, bank, corporate) are potentially exposed to the risk of such "fluctuations" (there is also a high risk of a cross-country contagion), which might undermine their economic/financial solidity and impair their ability to fulfil commercial or financial obligations towards the foreign agent.

Banks, exporters, contractors and investors are all exposed to market risk. A wide range of banking products (e.g., CDS) is available to mitigate their exposure to it. The analysis of market risk and related financial instruments to shield against it is out of the scope of this paper.

3.2 SACE's products against Credit, Regulatory and Political Violence Risks.

SACE provides a solution to protect business activities against credit risk due to political and commercial risks. Exporters may cover their sales to foreign buyers against non-payment due to commercial and political events and other contractual risks such as failure to recover pre-shipment costs (e.g. *Supplier Credit Policy*). **Banks** can benefit from SACE's financial guarantees and insurance coverage provided with the *Buyer's Credit Guarantee* and *Confirmation of Letters of Credit*; **Contractors** can additionally cover the financial risks associated with a possible cancellation of the contract and against non-payment risk (*Civil Works Policy*). Corporates involved in civil works may also request guarantees covering contractual and legal obligations.

Regulatory and political violence risks can also be insured. Investors may mitigate risks, which may result in the partial or total loss of the invested capital (e.g. expropriation, nationalization, transfer and convertibility restrictions) through *Political Risk Insurance*. **Exporters, banks and contractors** may also protect their activities abroad against political events through insurance and financial products above mentioned (e.g. *Supplier Credit*, *Buyer Credit*, *Civil Works Policy*).

Tab 1. SACE's main products to protect against credit, regulatory and political violence risks

	EXPORTER	BANK	CONTRACTOR	INVESTOR
CREDIT RISK **Counterparty:** Bank, Large Corporate, SMEs, Sovereign	Supplier's Credit*	Buyer's Credit/ Confirmation of letters of credit	Civil Works *	
REGULATORY RISK **Events:** Expropriation and nationalization, Transfer and convertibility, Breach of contract	Supplier's Credit*	Buyer's Credit/ Confirmation of letters of credit	Civil Works *	Political Risk Insurance
POLITICAL VIOLENCE RISK **Events:** Civil war, unrest, terrorism	Supplier's Credit*	Buyer's Credit/ Confirmation of letters of credit	Civil Works *	Political Risk Insurance

* including other contractual risks (e.g. production risks, undue calling of bonds, destruction of temporarly exported goods)

BOX 1. POLITICAL RISK: SOME EXAMPLES

Expropriation Risk

The Sakhalin issue represents a case study in terms of expropriation risk, albeit in a so-called creeping form. The second phase of Sakhalin project, a PSA (Production Sharing Agreement) with Royal Dutch Shell in Siberia, has been halted by the Russian government owing to environmental issue. The revoke of environment permits persuaded Shell to renegotiate the terms of agreement (after energy prices had greatly increased) and hand over the control of the project to the Russian state-owned gas company.

Transfer risk

In December 2002 and January 2003 workers' strikes considerably affected the Venezuelan oil sector, the country's main source of hard currency. In order to avoid international reserve depletion and further outflows of foreign capitals, President Chavez established a *Commission for the Administration of Foreign Exchange (CADIVI)*, in charge of the regulation of the sale and purchase of foreign currency. Since then, transfer restrictions have been introduced and foreign corporates operating in the county and are now requested to secure CADIVI authorization before repatriating dividends and capital. In the last years restrictions have tightened and governmental authorizations severely decreased (to USD 61.1 million in 2010 from USD 3.8 billion in 2007).

Political Violence risk

The 2011 Arab Spring may prove a relevant case study on political violence risks. Challenging economic issues (namely, high youth unemployment, income inequality and rising food inflation) and lack of political rights exacerbated the social tensions and ignited violent clashes in North Africa and the Middle East (mainly in Bahrain, Egypt, Libya and Tunisia). Fighting and mass demonstration caused disruption of business activities, damages and destruction of local commercial and industrial structures. The uncertain transitional process, the decline of security situation, the ongoing social tensions and the consequent slowdown in economic activity still pose challenges to local and foreign business.

3.3 An interactive country risk assessment

SACE's new approach relies on the interaction between economic agents (i.e., exporters, banks, contractors, and investors) **and the risk they face** (i.e., credit risk, regulatory risk, political violence risk)**.** More specifically, the risk for an economic agent of doing business in a particular country is not unique but differs based on the nature of the counterpart (i.e., Sovereign, Bank, Corporate) or the specific risk event. Consequently, country risk maps, available to users online on SACE's website, will differ depending on the combinations of economic agent, risk, and counterparties/events. The map is an interactive tool that helps users in identifying and assessing risk with a score (index) conditional on the counterpart or specific risk events (fig. 1).

Preliminary assessments and advisory tools are also available online for a tailored risk-analysis. Specific **c**ountry risk scores will be available once the features of a specific transaction are identified (e.g., detailed information on the counterpart, the relevance of the sector, location). Online is will also be possible to receive a counterpart credit opinion and check banks shortlisted by SACE for online activity (fig.2)

Fig. 1 ***Screenshot:*** **SACE website – Risk selection and global rating view**

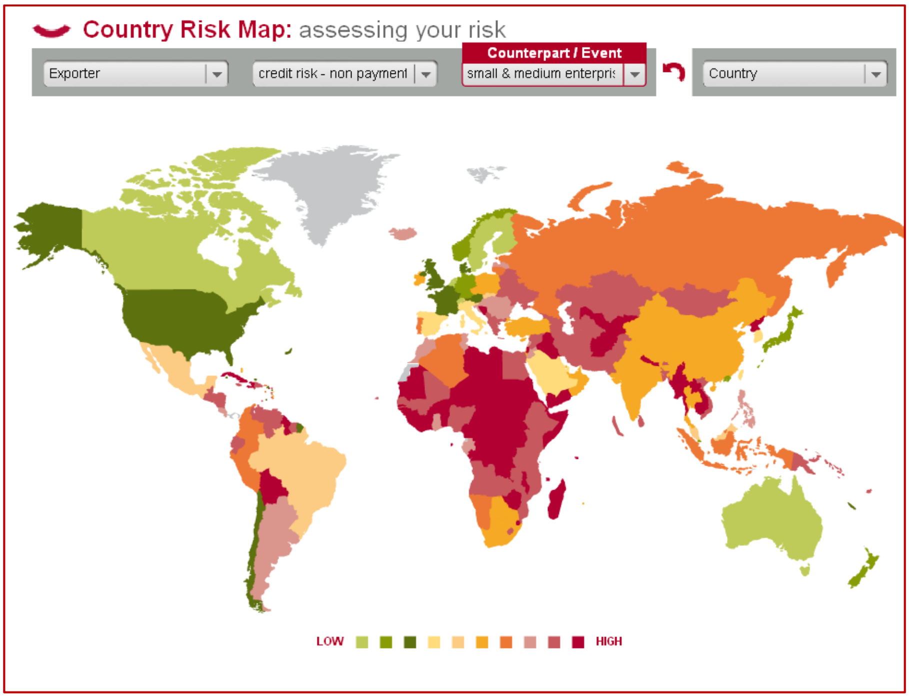
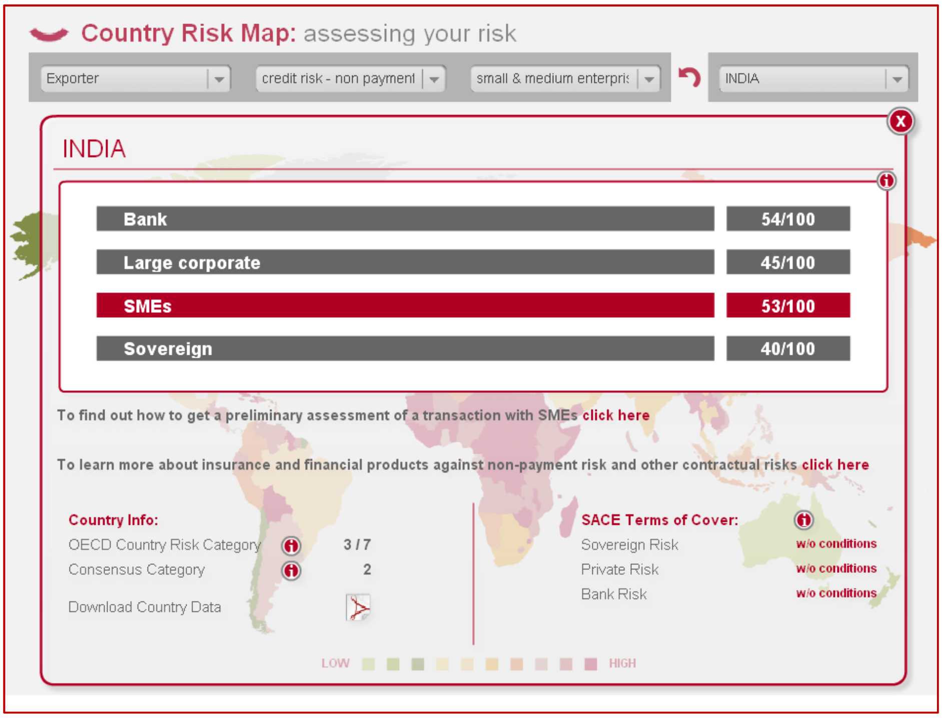


Fig. 2 ***Screenshot:*** **SACE website – Preliminary Assessment request and insurance products**



4. Methodology behind risk indicators

The new approach breaks down the single country risk score into eight scores corresponding to four (4) counterparts (i.e., Sovereign, Bank, Large Corporate, Small and Medium Corporate) **and four (4) event risks** (i.e. risk of transfer and convertibility, expropriation and nationalization, breach of contract, political violence). Scores are computed using a specific set of quantitative variables, adjusted by qualitative assessments to account for delays in up-to-date data release and to benefit from SACE's experience. Scores range from 0 to 100 (with 0 representing the lowest risk and 100 the highest risk).

Sovereign credit risk is based on a quantitative indicator that summarizes the "economic health" of a country. The long-term foreign currency credit rating for sovereign bonds assigned by credit rating agencies (S&P's, Moody's, Fitch) is used for this score. Countries without a credit rating from these agencies (26 out of 191) are assigned a shadow rating computed by SACE[3] .

The banking system credit risk score combines a set of quantitative variables relating to the solidity and performance of the banking sector, and a qualitative adjustment. Banking system final score must not be higher than the sovereign risk score. The final banking system credit risk score is cross checked against the S&P's Banking Industry Country Risk Assessment (BICRA)[4] for consistency.

Corporate sector risk is classified according to company size. The large corporate sector is comprised of companies with turnover of at least € 50 million per year. As with the bank credit risk score, the large corporate risk score is based on individual companies' financial statement variables, adjusted for stock market growth indexes and quality of auditing information. Once again, the as-

[3] This rating is performed by applying a conversion factor to the OECD category on the basis of the OECD category study.

[4] The Banking Industry Country Risk Assessment is available for 92 countries.

sumption is that the final score must not be higher than sovereign risk score[5]. The **Small & Medium Enterprises (SMEs)** sector **is comprised of companies with turnover less than € 50 million per year.** In order to ensure consistency within the corporate sector of a country, the SMEs risk score adopts the same methodology as the large corporate risk score, adjusted for a qualitative assessment of the business environment, company risk, depth of credit information and ease of getting credit.[6]

For the risk of expropriation and nationalization the variables utilized explore a country's regulatory, legal and governance environment (in terms of the level of state control and involvement), to estimate the probability of discriminatory actions.

The risk of breach of contract is assessed using the same set of indicators as the risk of expropriation and nationalization score, selecting the most relevant variables and controlling for corruption indexes.

Among regulatory risk, transfer and convertibility risk is the most closely correlated with sovereign credit risk and it is essentially determined by financial macroeconomic variables, which together measure the foreign exchange liquidity of a country.[7]

The assessment of the risk of political violence involves the use of variables that define the country's socio-economic context, namely the extent of representation of minority groups, freedom of association, social and income inequalities.

[5] The only exception to this rule is in the case of countries with a large number of non-financial corporations with ratings that exceed the sovereign rating (See corporate ratings that exceed the sovereign rating, S&P's).
[6] We did not consider fiscal variables here due to the lack of reliable data for small companies.
[7] See *S&P's Transfer and Convertibility* (*T&C*) *rating,*

BOX 2. VARIABLES IN THE MODEL

SOVEREIGN CREDIT RISK
Rating S&P's, Moody's, Fitch, SACE
BANKING CREDIT RISK
Capital adequacy ratio - CAR (International Monetary Fund*)
Non-performing loans - NPL (World Bank** and International Monetary Fund*)
Domestic credit provided by banking sector (% of GDP), (WB**)
Rating BICRA (S&P's)
LARGE CORPORATE CREDIT RISK
Return on sales - ROS (Orbis)
Return on equity - ROE (Orbis)
Leverage (Orbis)
Number of domestic companies listed (WB**)
Market capitalization of listed companies (% of GDP), (WB**)
Strength of auditing and reporting standards (World Economic Forum)
Sovereign rating S&P's, Moody's, Fitch, SACE
Number of corporate ratings that exceed the sovereign rating (S&P's)
Banking sector credit risk score (SACE)
SMALL & MEDIUM ENTERPRISES CREDIT RISK
Large corporate credit risk score (SACE)
Business environment indicator (Coface)
Short-term company risk indicator (Coface)
Depth of credit information (WB**)
% of firms with line of credit or loans from financial institutions (WB, Enterprise Survey)
% of firms identifying access to finance as a major constraint (WB, Enterprise Survey)
Loans requiring collateral (%) (WB, Enterprise Survey)
Ease to access credit (World Economic Forum)
REGULATORY RISK – EXPROPRIATION AND NATIONALIZATION
Rule of law (WB**)
Property rights (Heritage Foundation)
Government effectiveness and intervention (WB**)
Control of corruption (WB**)
REGULATORY RISK - BREACH OF CONTRACT
Rule of law (WB**)
Government effectiveness and intervention (WB**)
Dummy control of corruption (WB**)
REGULATORY RISK – TRASFER AND CONVERTIBILITY
Current account/GDP (EIU Bureau Van Dijk)
International reserves (as months of import) (EIU Bureau Van Dijk)
Exchange rate regime (IMF***)
SACE-PRI score
Rating T&C (S&P's)
POLITICAL VIOLENCE RISK
Voice and accountability (WB**)
Absence of violence/terrorism (WB**)
Rule of law (WB**)

* *Financial Soundness Indicators Database and IMF publications (i.e. Financial System Stability Assessment* and *Article IV).*

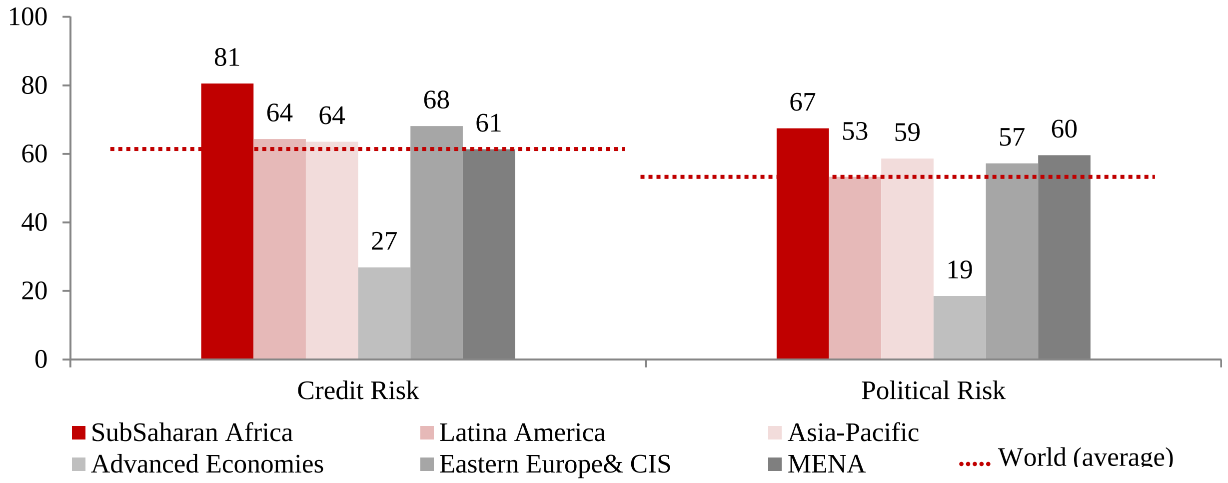
** *World Development Indicators & Global Development Finance Database*

*** *E. Levy Yeyati, F. Sturzenegger* (2005).

5. Main evidence

As mentioned in the previous chapters, SACE's new approach breaks down the single country risk at different levels. Figure 3 shows credit risk and political risk by geographical areas. This analysis can be further refined aiming at 8 scores representing: i) counterpart credit risks (sovereign, bank, large corporate SMEs) ii) political risks in the form of regulatory risk (risk of expropriation and nationalization, risk of breach of contract, transfer and convertibility risk) and political violence risk (war, terrorism and civil disturbance). The rating scale ranges between 0 and 100 (where 0 is the minimum risk). In the analysis below, risk scores are analyzed by regions and compared with the 2007 pre-crisis risk scores (fig. 3)[8].

Fig. 3 Credit Risk and Political Risk: an overview by area



Source: SACE

5.1 Credit risk by geographic area

Global economies have been severely affected by the crisis which spread in 2008 from financial markets into the real economy. Credit risk has increased as a consequence of deterioration in sovereign, banking and corporate global scores (world average: 63/100).

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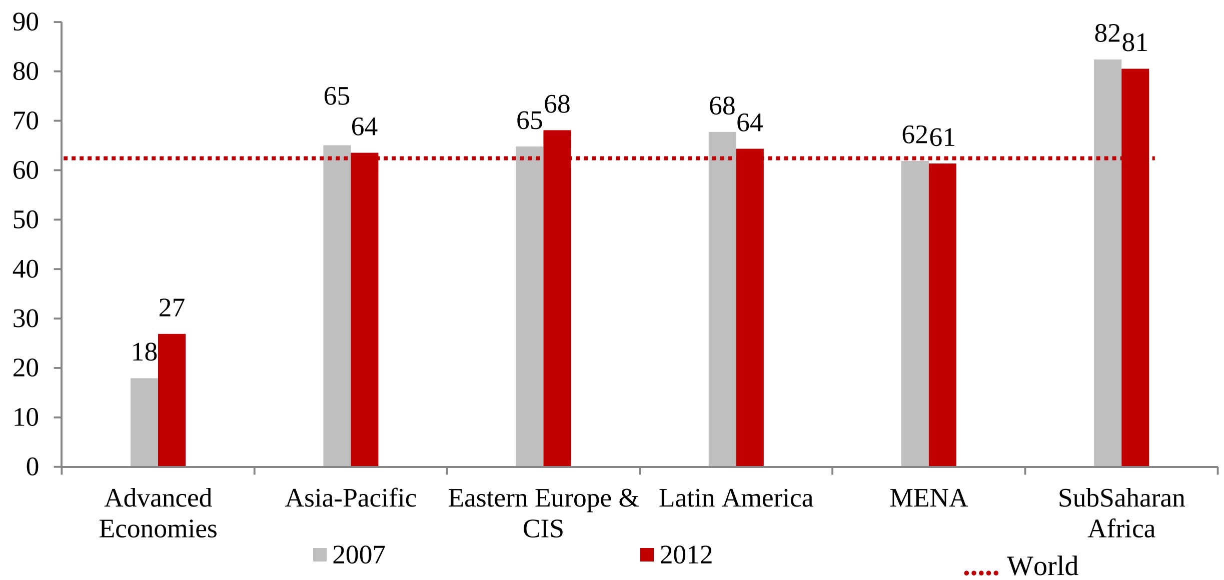
[8] Latest available data: January 2012.

Emerging countries, as expected, are characterized by a higher risk than advanced economies. Nevertheless, the global recession has suddenly redefined the idea of risk-free countries. According to the model, advanced economies have faced the largest increase in credit risk over the last five years (fig. 4). In comparison, emerging countries, except for Eastern Europe and the Commonwealth of Independent States (CIS), recorded a mild decrease in risk compared to 2007.

Fig. 4 Credit Risk by geographical area



Source: SACE

<u>Sub-Saharan Africa</u> is the most challenging area in terms of credit risk (81/100). The countries most exposed to this risk are those affected by fragile political structures, weak economic systems and low level of development and poor governance (e.g., Somalia, Sudan and Zimbabwe). In comparison, South Africa, Botswana and Namibia achieve a better credit risk score due to the resilience of the global demand for oil and natural resources, responsible macroeconomic management and a fairly sound financial system.

The score for the <u>Latin America and the Caribbean</u> region shows an improvement in credit risk compared to 2007, reflecting the progress made by the less developed and financially integrated countries. Thanks to the abundance of metal and energy resources and a surge in capital inflows driven by the rise of commodity prices, countries like Ecuador and Nicaragua appear now stronger. In developed and more integrated economies, credit risk scores seem stable as is the case for Brazil which is now in a process of consolidation having improved steadily throughout the last decade.

The credit risk score in Asia is broadly stable. However a closer look highlights that in some countries political and economic concerns persist (Pakistan and Vietnam, respectively). On the other hand, in countries where policy reforms and measures to ease the business environment have been implemented improvements in the credit risk score emerge (e.g., Indonesia).

Eastern Europe and the CIS is the second riskiest area, both in terms of banking and corporate risk. Compared to 2007, the area reported a deterioration in credit risk score due to the worsening of the local financial systems (mainly characterized by a limited level of integration, undercapitalized banks with a high ratio of non-performing loans) and trade balance (which suffered from the weaker demand from the main European economic partners). In the region there are also positive dynamics, as in Turkey, which shows a lower credit risk score as a result of political stability, improved macroeconomic fundamentals and a strengthened banking sector.

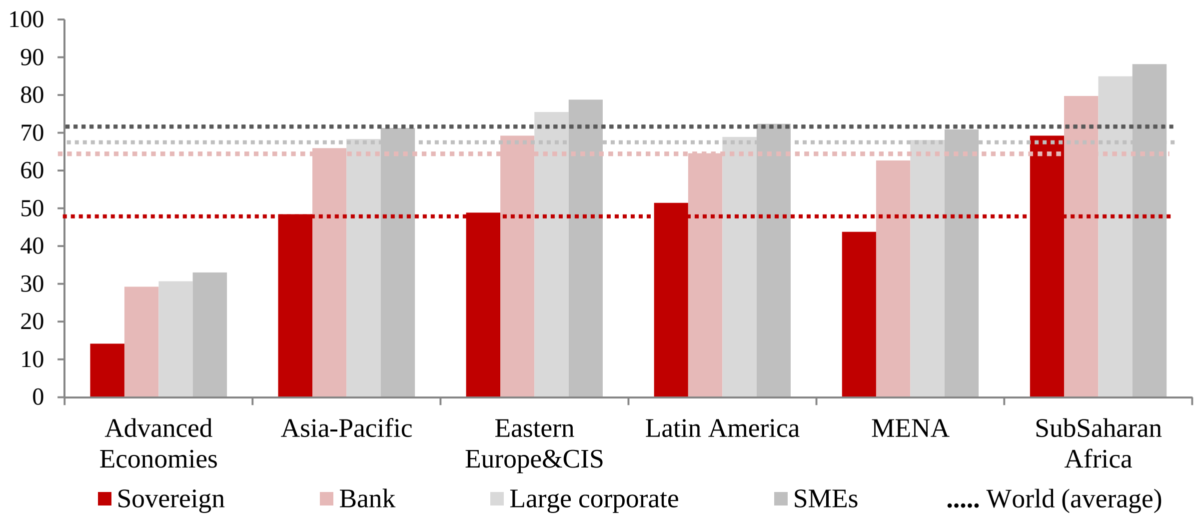
The credit risk score of Middle East and North Africa is high (61/100) but still below the world average. Credit risk scores were negatively affected by the impact of the social and political turmoil on the local economies in the countries shaken by the "Arab Spring" (i.e., Bahrain, Egypt and Libya). Major infrastructure and oil&gas projects, as well as investments aimed at a diversifying the economy, had a positive effect on the credit risk score of countries like Qatar.

The global crisis severely affected some of the advanced economies, proving that they were not immune to credit risk. Economies like Greece, Ireland and Iceland already had a higher than average credit risk score before 2007, with the crisis putting their already fragile economic and financial systems under further pressure. In comparison, countries like Finland, Switzerland and Sweden reported a remarkably low credit risk score.

5.2 Credit risk by counterparts

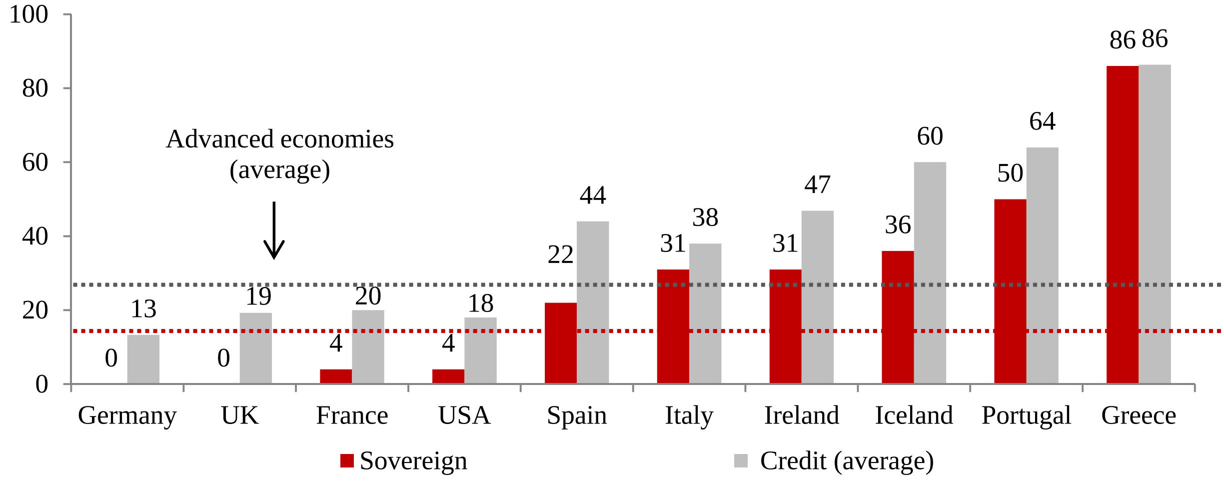
Sovereign risk is lower in advanced economies but the variance across countries is increasing (fig.5). Scores range from very low (e.g., 0 in Germany and United Kingdom) to very high risk (e.g., 86 in Greece). Traditionally risk-free countries like France faced a deterioration too, mainly in the second half of 2011. Recent sovereign downgrades reduced the distance between sovereign and average credit risk scores. In the case of Greece the two scores are aligned (fig. 6). In the context of the European debt crisis, the increase in sovereign risk is spilling into the financial sector, affecting in particular those banks with high exposure to European sovereign debt.

Fig. 5 Credit Risk by counterparts and geography



Source: SACE

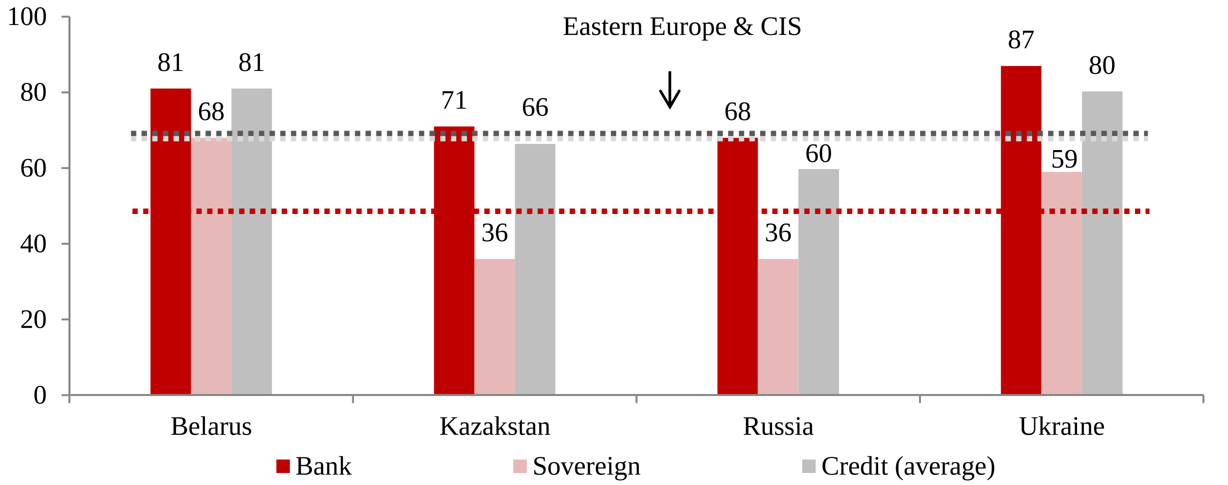
Fig.6 Sovereign Risk: a comparison among Advanced Economies



Source: SACE

The high credit risk score in Eastern Europe and in the CIS stems from a weak banking sector. The global crisis impacted heavily on their financial systems resulting in a marked deterioration of the main banking indicators (e.g., capital adequacy ratio, non-performing loans) and bail outs by local governments. Belarus, Kazakhstan and Ukraine banking risk scores exceed the regional average credit risk score (fig. 7).

Fig. 7 Banking risk in Eastern Europe and CIS

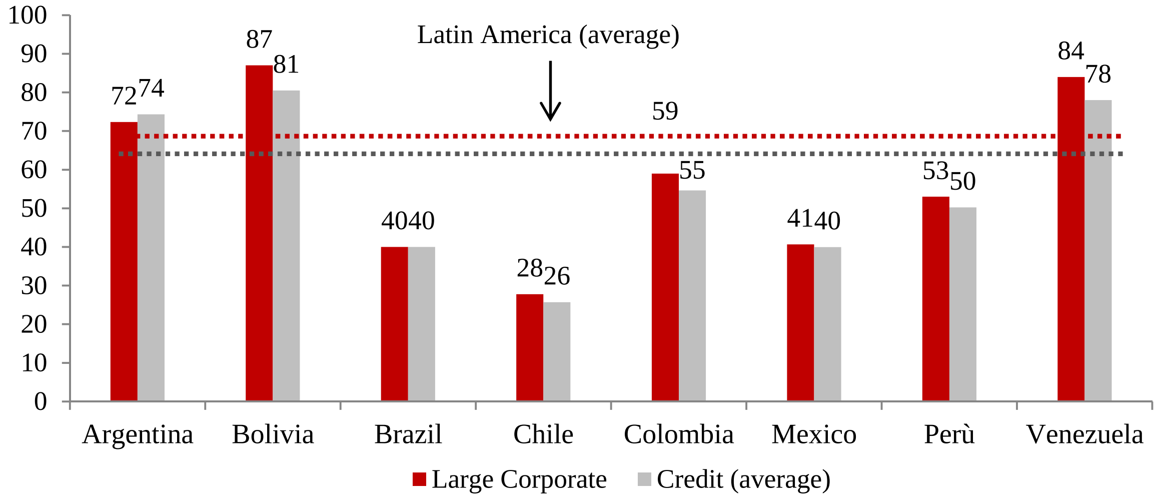


Source: SACE

Large corporate credit risk in Latin America is high but in line with average global scores, respectively, 69/100 and 68/100 (fig. 8). The corporate score is remarkably low in countries with a sound business environment (e.g., Chile and

Mexico) or where credit rating agencies rate corporations higher than the sovereign (i.e., Petrobras, a company operating in the Brazilian oil&gas sector).

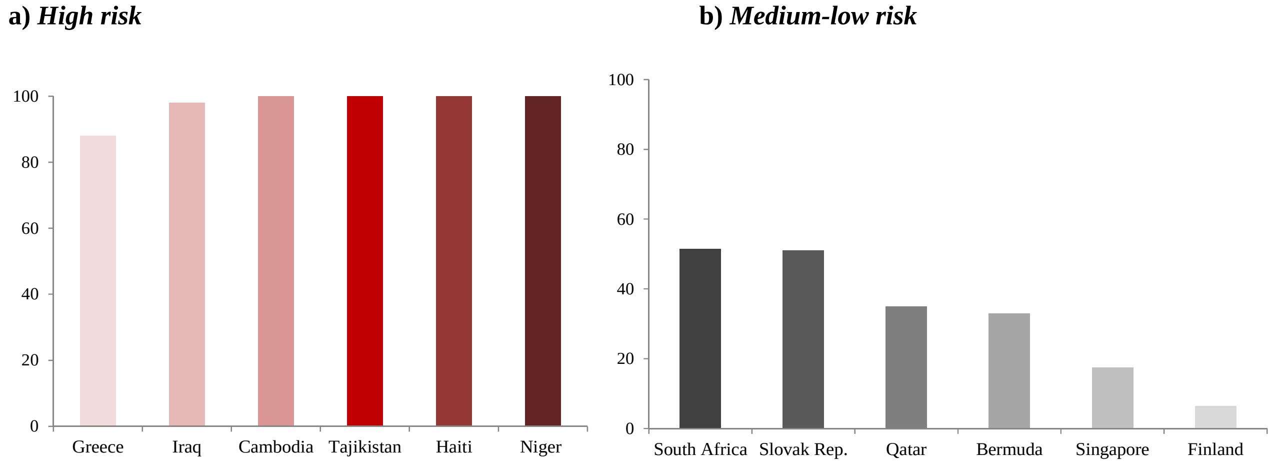
Fig. 8 Large corporate credit risk in Latin America



Source: SACE

Over 60% of the overall countries assessed in the model have a high SMEs credit risk (higher than 70/100). These scores reflect a lower integration in the global markets and a lack of reliable quantitative information on enterprises. Lower SMEs credit risk scores can be found in more integrated and developed economies, like South Africa, Qatar or Singapore. On the other hand, countries characterized by institutional fragility (e.g., Iraq), hit hard by the global crisis (e.g., Greece), or less developed (e.g., Niger) show higher SMEs credit risk scores (fig. 9).

Fig. 9 Credit Risk – SMEs Counterparts

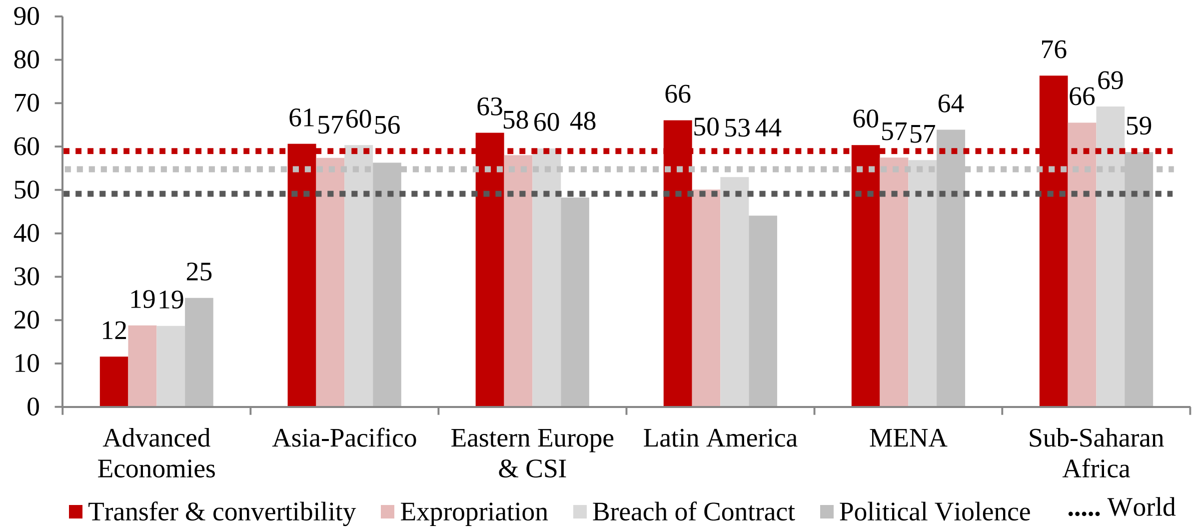


Source: SACE

5.3 Regulatory and political violence risks

Similarly to the credit risk, regulatory and political violence risks are higher in emerging markets than in advanced economies and are mainly driven by transfer convertibility risk (fig. 10). Expropriation and political violence risk scores show an improvement in the last five years.

Fig. 10 Political risk by geographical area (average)

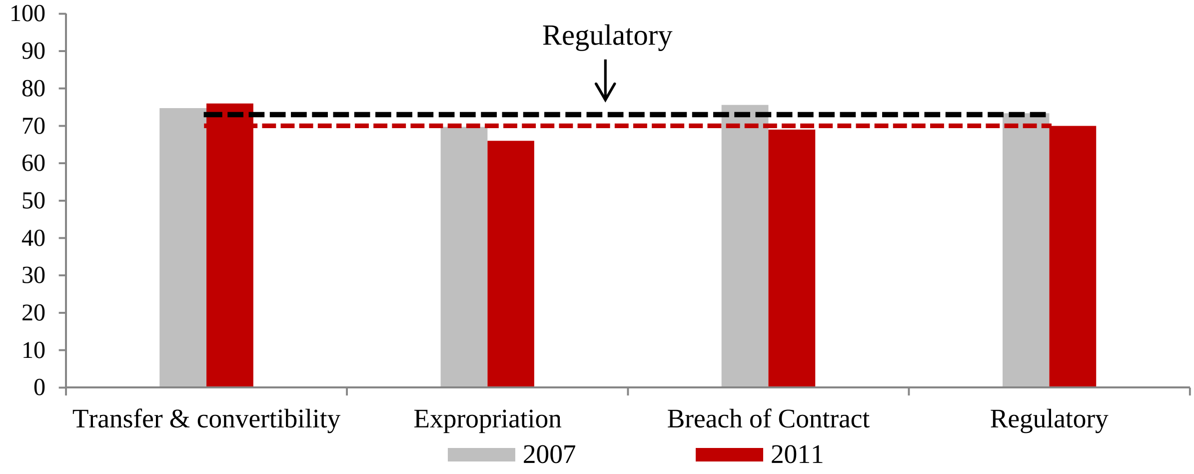


Source: SACE

<u>Sub-Saharan Africa</u> is the riskiest area in terms of regulatory risk. The high risk is driven by a low degree of economic development and a weak legal and judicial environment. However, compared to 2007, the subcontinent's expropriation and breach of contract risk scores show a noteworthy improvement due to a strong commitment to policy reform and international institution involvement (e.g., Rwanda) (fig. 11).

Political violence risk is higher in the <u>Middle East and North Africa</u>, as a consequence of the "Arab Spring" which affected several countries in the region, mainly Bahrain, Egypt, Libya, Syria, Tunisia and Yemen.

Fig 11 Regulatory risk in Sub-Saharan Africa: 2012 vs. 2007

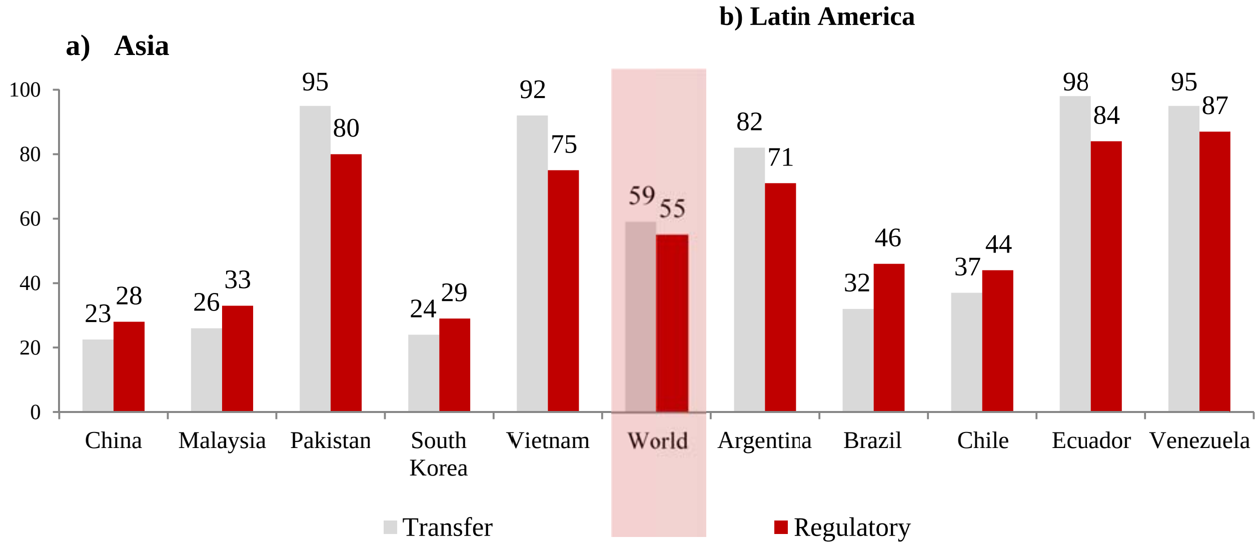


Source: SACE

<u>Advanced economies</u> also face an increase in political violence risk resulting from political instability and a gloomy economic outlook, although still lower than other regions.

In <u>Asia and Latin America</u> transfer risk is higher than global average (fig. 12). High transfer risk scores occurred in countries characterized by a weak political and economic structure (i.e., Pakistan) or by a scarcity of hard currency (i.e., Vietnam, Ecuador and Venezuela). Countries undergoing rapid and noticeable socio-economic growth (i.e., Brazil, Chile, South Korea, and Malaysia) report lower transfer risk scores

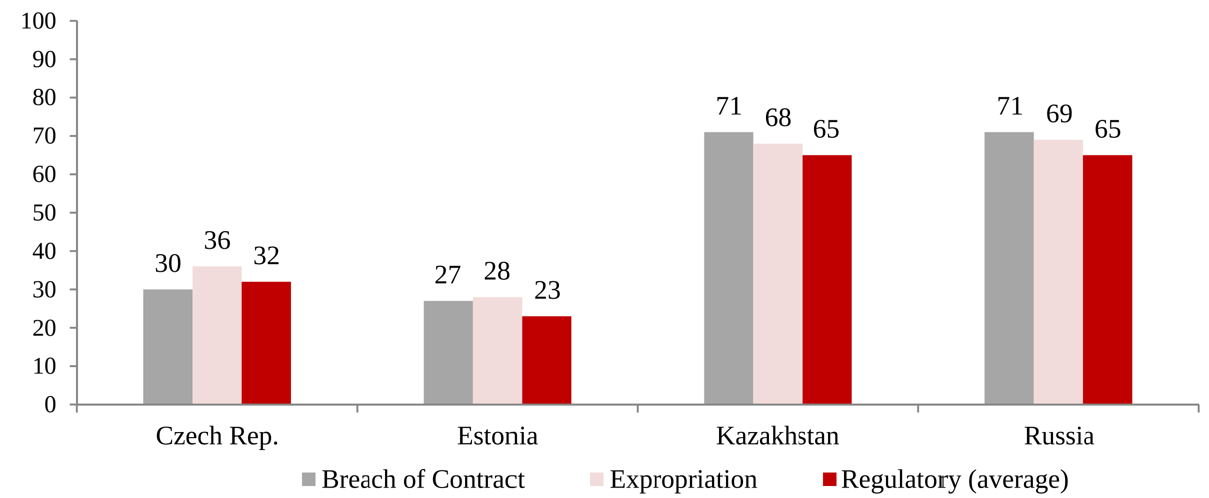
Fig. 12 Transfer risk in Latin America and Asia



Source: SACE

<u>Eastern Europe and the CIS</u> is the second riskiest region in terms of expropriation and breach of contract (namely, 58 and 60/100 in comparison with global average 52 and 54/100). Limited transparency, high level of corruption and strong concentration of political and economic power may be associated with a high expropriation and breach of contract risk score (e.g., Russia and Kazakhstan[9]). In other cases, risk scores are more encouraging owing to more transparent and developed economies.

Fig. 16. Regulatory risk in selected countries of Eastern Europe and CIS



Source: SACE

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[9] See Box 1: Political risk

APPENDIX 1: Detailed results

Country	Sovereign	Bank	Large corporate	SME	Transfer	Expro-priation	Breach of Contract	Political violence
AFGHANISTAN	77	91	100	100	88	85	92	100
ALBANIA	59	73	81	83	76	62	68	48
ALGERIA	40	57	65	70	48	70	61	66
ANDORRA	18	18	39	39	12	23	22	21
ANGOLA	54	69	77	83	67	73	69	72
ANTIGUA AND BARBUDA	63	63	78	82	63	33	36	31
ARGENTINA	63	83	72	79	82	65	67	48
ARMENIA	54	67	76	81	75	61	63	50
ARUBA	27	50	36	40	58	27	28	24
AUSTRALIA	0	6	6	7	6	12	13	23
AUSTRIA	4	28	29	30	12	13	14	20
AZERBAIJAN	40	70	73	78	66	71	73	59
BAHAMAS	31	44	47	51	52	27	26	30
BAHRAIN	36	50	55	57	61	41	38	67
BANGLADESH	54	72	77	81	82	72	73	69
BARBADOS	40	40	49	53	52	23	22	25
BELARUS	68	81	86	89	100	74	80	51
BELGIUM	4	31	20	23	10	23	22	29
BELIZE	68	68	81	84	79	59	65	42
BENIN	63	94	94	96	76	64	69	43
BERMUDA	13	27	30	33	26	29	30	30
BHUTAN	63	72	82	86	71	43	44	38
BOLIVIA	59	85	87	91	95	74	78	62
BOSNIA HERZEGOVINA	63	85	91	94	83	68	68	54
BOTSWANA	27	48	54	57	37	34	31	31
BRAZIL	40	41	40	41	32	49	56	47
BRUNEI	31	60	61	66	21	33	34	32
BULGARIA	36	63	72	77	63	58	59	40
BURKINA FASO	63	83	88	93	82	64	66	50
BURUNDI	86	86	93	96	82	80	80	80
CAMBODIA	59	100	100	100	82	72	78	65
CAMEROON	63	83	85	91	74	67	75	60
CANADA	0	6	6	7	6	11	12	23
CAPE VERDE	59	64	79	83	72	39	41	32
CAYMAN ISLANDS	13	17	25	26	46	29	25	26
CENTRAL AFRICAN REPUBLIC	86	94	100	100	91	78	86	75
CHAD	77	92	95	97	90	76	84	79
CHILE	18	28	28	29	37	23	25	32
CHINA	13	45	48	52	23	52	57	48
COLOMBIA	40	57	59	63	45	55	63	68
COMOROS	77	83	93	95	73	70	83	63
CONGO, DEMOCRATIC REP.	77	89	93	97	80	85	84	84
CONGO, REP.	77	77	82	85	74	78	82	62
COSTA RICA	36	62	69	74	65	45	41	35
COTE D'IVOIRE	86	88	90	95	75	79	84	84
CROATIA	40	61	72	76	51	50	43	38
CUBA	72	90	100	100	83	69	72	56
CYPRUS	45	70	60	62	12	27	27	33
CZECH REPUBLIC	13	39	51	52	30	36	30	29
DENMARK	0	17	21	23	6	8	9	23
DJIBUTI	86	86	92	95	78	65	72	54
DOMINICA	63	72	78	82	76	37	36	29
DOMINICAN REPUBLIC	59	71	72	79	83	65	69	47
ECUADOR	68	83	83	86	98	74	81	61
EGYPT	50	76	78	82	69	70	64	74
EL SALVADOR	50	72	80	84	46	57	67	57
EQUATORIAL GUINEA	72	77	85	85	72	77	82	59
ERITREA	86	91	94	97	92	75	83	72
ESTONIA	13	53	63	64	15	28	27	32
ETHIOPIA	68	75	85	90	91	64	68	74

Country	Sovereign	Bank	Large corporate	SME	Transfer	Expro-priation	Breach of Contract	Political violence
FIJI	63	77	83	86	98	66	73	51
FINLAND	0	6	6	6	6	9	12	19
FRANCE	4	27	23	25	6	21	20	30
GABON	54	67	71	75	64	63	69	49
GAMBIA	72	86	92	96	76	62	67	49
GEORGIA	59	81	85	88	79	56	61	60
GERMANY	0	17	17	20	6	15	16	23
GHANA	63	67	74	79	60	45	56	40
GREECE	86	86	86	88	41	42	36	37
GRENADA	68	76	82	86	85	46	46	35
GUATEMALA	50	83	85	88	64	67	75	58
GUINEA	86	86	94	99	80	81	84	79
GUINEA-BISSAU	86	94	100	100	87	79	85	72
GUYANA	77	77	91	93	91	62	67	55
HAITI	86	95	100	100	95	81	85	70
HONDURAS	63	79	86	90	88	68	73	55
HONG KONG	0	17	17	19	8	14	16	27
HUNGARY	45	75	78	81	51	37	35	33
ICELAND	36	63	70	72	67	11	15	20
INDIA	40	54	45	53	43	53	58	60
INDONESIA	45	62	62	65	46	55	68	61
IRAN	68	82	84	87	89	73	74	74
IRAQ	72	95	95	98	85	84	91	88
IRELAND	31	55	47	55	18	15	16	22
ISRAEL	18	39	50	51	25	31	28	56
ITALY	31	37	41	43	6	40	38	37
JAMAICA	68	83	85	89	95	57	63	49
JAPAN	13	17	17	19	12	23	21	27
JORDAN	50	69	72	76	65	44	42	56
KAZAKHSTAN	36	71	77	82	57	68	71	47
KENYA	59	71	73	78	74	67	75	65
KIRGYZ REPUBLIC	77	77	94	97	75	73	78	62
KOREA, NORTH	100	100	100	100	100	98	97	67
KOREA, SOUTH	22	34	30	33	24	33	29	55
KOSOVO	68	77	85	91	68	66	73	70
KUWAIT	9	35	36	41	30	45	41	41
LAO REPUBLIC	72	92	95	98	68	76	76	56
LATVIA	45	70	72	76	55	42	37	36
LEBANON	63	71	73	76	77	68	72	72
LESOTHO	54	72	77	82	80	58	55	48
LIBERIA	86	84	95	96	87	73	83	63
LIBYA	72	83	100	100	62	78	74	81
LIECHTENSTEIN	0	15	45	50	6	20	16	21
LITHUANIA	36	61	64	67	43	43	37	33
LUXEMBURG	0	17	11	16	10	13	15	17
MACAO	13	48	49	51	18	41	44	39
MACEDONIA (FYROM)	50	66	76	82	73	58	63	51
MADAGASCAR	63	86	90	93	85	68	66	63
MALAWI	72	85	88	92	76	60	68	48
MALAYSIA	27	39	41	43	26	41	33	45
MALDIVES	63	68	78	83	68	63	65	50
MALI	63	79	84	88	84	61	60	49
MALTA	27	57	51	55	8	24	21	22
MAURITANIA	72	86	89	93	98	72	79	64
MAURITIUS	36	47	51	55	60	35	33	31
MEXICO	36	39	41	44	45	50	50	55
MOLDOVA	68	77	82	87	78	64	71	53
MONGOLIA	54	76	79	84	87	66	71	44
MONTENEGRO	50	72	79	82	45	56	60	39
MOROCCO	40	61	69	71	62	56	61	60
MOZAMBIQUE	59	79	86	89	83	60	64	46
MYANMAR	86	94	100	100	97	88	90	78
NAMIBIA	40	51	53	57	51	50	41	32

Country	Sovereign	Bank	Large corporate	SME	Transfer	Expro-priation	Breach of Contract	Political violence
NEPAL	77	86	91	94	65	66	74	71
NETHERLAND	0	6	6	7	6	11	14	24
NETHERLAND ANTILLES	54	61	62	64	25	31	33	28
NEW ZEALAND	4	17	18	20	6	9	14	21
NICARAGUA	68	80	85	90	93	71	77	55
NIGER	81	94	100	100	74	68	73	70
NIGERIA	59	72	73	77	85	69	74	75
NORWAY	0	17	17	18	6	11	11	19
OMAN	22	44	45	50	47	42	37	37
PAKISTAN	68	80	85	89	95	69	75	91
PANAMA	40	52	50	53	42	55	59	44
PAPUA NEW GUINEA	59	74	78	82	66	74	76	70
PARAGUAY	59	80	77	80	71	71	77	59
PERU	36	51	53	61	46	61	69	59
PHIILIPPINES	50	75	68	73	61	63	64	65
POLAND	27	43	49	52	51	43	40	33
PORTUGAL	50	63	68	73	16	30	29	27
PUERTO RICO	31	53	56	61	52	39	36	34
QATAR	9	30	33	35	26	33	34	35
ROMANIA	45	64	72	76	52	55	61	42
RUSSIA	36	68	65	70	56	69	71	61
RWANDA	63	83	84	91	78	52	55	58
SALOMON ISLANDS	63	77	82	86	90	67	74	47
SAO TOME AND PRINCIPE	86	89	92	94	77	63	69	44
SAUDI ARABIA	13	28	36	38	22	52	46	56
SEICHELLES	63	76	87	91	76	45	43	36
SENEGAL	59	72	80	87	67	52	60	50
SERBIA	50	72	76	79	76	59	66	53
SIERRA LEONE	86	94	100	100	79	78	80	54
SINGAPORE	0	14	12	15	21	7	7	27
SLOVAK REPUBLIC	22	43	48	51	14	41	36	31
SLOVENIA	18	43	48	50	14	34	29	27
SOMALIA	100	100	100	100	100	100	100	100
SOUTH AFRICA	31	41	43	45	40	37	32	44
SPAIN	22	46	51	55	6	29	28	38
SRI LANKA	59	75	81	85	93	56	62	71
ST. KITTS AND NEVIS	95	95	96	98	80	35	35	30
ST. LUCIA	50	57	72	76	80	31	32	31
ST. VINCENT	59	65	77	80	80	33	33	30
SUDAN	95	95	100	100	87	81	88	86
SURINAME	59	81	85	89	82	56	62	44
SWAZILAND	63	84	90	93	80	58	55	48
SWEDEN	0	6	6	8	6	8	11	21
SWITZERLAND	0	6	6	7	4	10	10	20
SYRIA	68	77	83	86	96	69	71	81
TAIWAN	13	35	35	36	22	32	33	33
TAJIKISTAN	86	91	100	100	85	73	79	64
TANZANIA	63	72	78	85	70	58	62	48
THAILAND	31	52	52	55	45	54	58	65
TOGO	86	89	91	95	80	70	80	50
TRINIDAD AND TOBAGO	22	54	58	63	42	52	58	45
TUNISIA	40	68	73	75	64	54	53	62
TURKEY	50	55	56	58	62	49	46	55
TURKMENISTAN	59	81	85	90	92	81	83	56
U.A.E.	9	39	55	59	49	38	34	39
UGANDA	59	73	88	91	70	62	65	60
UKRAINE	59	87	87	88	80	66	71	49
UNITED KINGDOM	0	25	25	27	6	16	15	29
UNITED STATES	4	22	22	24	4	18	17	30
URUGUAY	50	71	75	78	63	34	39	32
UZBEKISTAN	63	85	94	96	85	74	77	68
VENEZUELA	59	80	84	89	95	83	83	69
VIETNAM	54	78	83	85	92	68	66	51
VIRGIN ISLANDS	54	54	74	76	51	31	28	33
WEST BANK AND GAZA	81	87	92	96	89	74	80	78
YEMEN	72	100	100	100	83	70	80	90
ZAMBIA	59	73	77	82	54	63	72	45
ZIMBABWE	100	100	100	100	100	85	90	76

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