

# SIRIF\* – A Study of Risk Mitigation of Development Investments

Development and piloting of risk mitigation mechanisms for investors in emerging market SMEs and social enterprises

A study by The Global Exchange for Social Investment (GEXSI) and VantagePoint Global  
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\*Social Investment Re-Insurance Facility, the preliminary concept proposed by GEXSI and VantagePoint Global

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## 1. Executive Summary

The SIRIF<sup>1</sup> study – an analysis of issues in, and options for development investment risk mitigation – has identified and tested risk mitigation mechanisms, with the overall aim of supporting increases in private sector capital flows to small and medium size enterprises and social enterprises (further referred to as “SMEs”) in emerging markets.

A core assumption has been that development aid could be deployed to a greater extent in risk mitigation mechanisms that facilitate private sector investment in companies that employ and serve the world’s poor. If private sector, for-profit “development investment” could be increased significantly, it could become a major factor in employment generation, economic development, and poverty eradication.

The SIRIF study entailed **three project phases**, 1 - Risk Identification and Classification, 2 - Risk Mitigation Benchmarking (including insurance and re-insurance), and 3 - Mechanism Piloting.

### **The main conclusions of the study are:**

1. Existing commercially available risk mitigation mechanisms, in particular **political risk insurance, can be effectively adapted to SME portfolio attributes** to fulfil SME investor risk mitigation requirements.
2. More effective mitigation of a limited number of **disaggregated risks** could spur an increase in private sector development investment.
3. There is scope to make **SME investors more aware** of currently available risk mitigation mechanisms, overcoming some present market inefficiencies and incomplete information availability.
4. In order to utilize currently available mechanisms more effectively, a **streamlined “investment portfolio approach” to mitigating risks** is required. Transaction costs must be minimized, reflecting the small sums involved in individual SME investment deals. The SIRIF study indicates that this is feasible.
5. The strongest demand for the integration of risk mitigation comes from investors setting up **new investments and from those seeking co-investment in new or existing projects**. (The additional costs associated with risk mitigation mechanisms make them unattractive for existing investments where the cost structures are already set.)
6. There is a **clear need for risk mitigation mechanisms** with the following characteristics:
  - Minimal coverage cost – i.e. costing less than 2% of underlying investment
  - Low transaction cost – i.e. minimal investor time and effort required
  - Broad but disaggregated risk coverage – i.e. covering any combination of political, market and business risks
  - Few investment restrictions – i.e. any type of investor and investment can be covered
7. In addition to **political risk insurance**, there is demand from investors for commercially oriented mechanisms **covering currency risk and credit risk**.
8. **Development aid** or alternatively financed grant elements should “enhance” such risk mitigation mechanism, and thereby increase the use of political risk insurance, currency hedging, and investment credit guarantees.
9. There is **strong demand for a “one-stop” risk mitigation facilitation services** specializing in comprehensive risk coverage of political, market and business risks. Such services could specialize in designing and procuring “tailor made” coverage - both affordably and in a timely manner.

### **From findings to action:**

Preparations have been made to further model risk mitigation mechanisms, by way of “live” pilots. Therefore, next steps involve facilitating comprehensive risk mitigation deals, enhanced with development aid - to begin with for three specific development investment opportunities in emerging markets. The potential leverage effect for development aid is estimated at 1:10 – i.e. one dollar of development aid leads to 10 dollars in additional private sector investment.

To do so, we seek case-specific discussions with development aid agencies and interested investors.

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<sup>1</sup> Social Investment Re-Insurance Facility, the preliminary concept proposed by GEXSI and VantagePoint Global

## 2. Introduction

### 2.1 Background

In September 2005, the Global Exchange for Social Investment (GEXSI) ([www.gexsi.org](http://www.gexsi.org)) and VantagePoint Global ([www.vantagep.org](http://www.vantagep.org)) co-initiated “SIRIF<sup>2</sup> – A Study of Development Investment Risk Mitigation.” The SIRIF study sought to identify and test risk mitigation mechanisms that could catalyze an increase in private sector capital investment in small and medium size enterprises (SMEs) and social enterprises in emerging markets. This is the final report.

### 2.2 SIRIF<sup>3</sup> Study Objectives

The SIRIF study started with four assumptions:

1. Investment risks play a significant part in precluding a potential increase in private sector capital investment in emerging market SMEs and “social enterprises” (further referred to together as “SMEs”)
2. A wide range of public and private sector risk mitigation mechanisms exist to mitigate SME investment risks
3. Most mechanisms are currently not adapted to the particular needs and constraints of investments in SMEs
4. International development aid could be used to enhance risk mitigation mechanisms and leverage private investment in SMEs

In light of these assumptions, the main objectives of the SIRIF study were two-fold:

1. Identify and test the most applicable risk mitigation mechanisms currently available to investors in SMEs
2. Assess potential uses of development aid in risk mitigation of private sector investments

### 2.3 The Opportunity

Small companies in emerging markets – be they “social enterprises” or traditional SMEs – are the economic and social engines of local communities and national economies. They are both attractive investment opportunities – often achieving considerable financial returns – and an effective means of sustainable development, increasing employment and incomes via provision of essential goods and services, such as sanitation, energy, communications and microfinance.

However, millions of SMEs cannot access investment capital to grow sustainably. Encouragingly, there are other forms of financing such as Microfinance that have established itself. Micro-credit has become well developed and successful in recent years. At the other end of the spectrum, large projects and companies continue to have access to required investment capital.

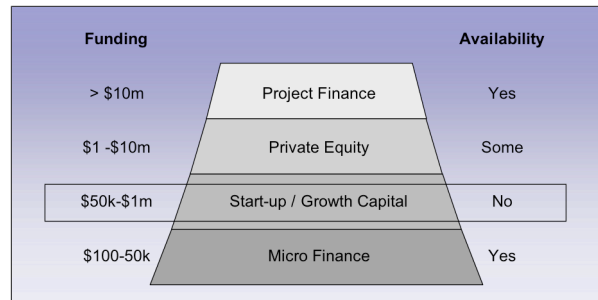
The most underserved sector in the economy is the SME sector as these companies are less able to tap capital flows – especially at the critical “start-up” and “initial growth” phases.

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<sup>2</sup> Social Investment Re-Insurance Facility, the preliminary concept proposed by GEXSI and VantagePoint Global

Recent analysis has show that there is a specific and serious financing gap in companies and projects typically requiring US\$50k - US\$1m in investment, as well as need for increased availability of financing of up to USD\$10m (see figure below).

Figure 1: Access to Capital – Financing Gap



Source: Shell Foundation, 2005

At the same time, private sector investors – both commercial and philanthropic – are looking for more effective ways to invest in emerging markets. The largely untapped potential for investments in small projects and enterprises is enormous.

Among many, two constraints are seen as most responsible for this gap. The first constraint is inadequate deal flow: “good investments are hard to find.” This may be the case in some areas, but companies like GEXSI, Acumen, E&Co., BID Challenge, and others are now tackling the problem of sourcing sound SME investment opportunities.

The second constraint concerns SME investment risks. That the developing market investment climate is riskier than that of developed countries is widely accepted – although emerging markets returns continue to draw increasing numbers of investors in search of high returns. But since certain types of risks increase as the size of the investment decreases, SME investments are often seen as too risky by all but the hardest and most “philanthropic” of investors.

Mitigating SME investment risks has potential to increase the attractiveness of these types of investments to a larger segment of investors. However, this is unlikely to happen as long as currently available risk mitigation mechanisms focusing on emerging markets continue to display a number of distinct – and inhibiting – features:

1. Predominantly available for large one-off investments in projects and companies
2. Investment- and investor-restrictive
3. Aggregated risk coverage, unnecessarily covering some risks and unable to cover others
4. High cost
5. Time-intensive and unwieldy

Complicating this issue is the fact that risk mitigation transaction costs are disproportionately high: for a US\$1m investment they are broadly as high as those of a US\$10m or USD\$100m investment. Understandably, both investors and risk mitigation practitioners naturally gravitate toward larger deals.

From recent discussions – carried out under this SIRIF Study – with a broad and diverse investor base (from micro-equity investors to large institutional investors), the consistent feedback has been that cost-effective, efficient, flexible and “investor-friendly” mechanisms for mitigating risks in these categories would go a long way to increasing capital flows to SMEs and social enterprises in emerging markets.

**More effective and readily available risk mitigation mechanisms would be a powerful way to increase investment flows – providing emerging market SMEs and social enterprises with growth capital, and private sector investors with both, attractive and more secure returns.**

### 3. Risk Mitigation Findings

#### 3.1 Risk identification and classification

There are many ways to minimize the risk that a specific event will negatively impact the return on a given investment. The notion of “investment risk mitigation” therefore covers a range of options.

There is considerable research available on the risks associated with investments in emerging markets – especially the least developed countries (LDCs). Building on such studies, the focus of this study’s risk analysis was the identification of material risks, specifically for SME investors, as opposed to investors in large-scale infrastructure, listed companies and foreign direct investment (FDI), etc.

One of the most comprehensive risk studies, “Mitigating Risks for Foreign Investments in Least Developed Countries” by Mistry and Oleson (2003), provides a wide-ranging overview of the risks faced by investors in LDCs.

Table 1: Overview of risk categories

Risk	Sub-Risk Examples
<b>Political</b>	Expropriation, Nationalization
<b>War &amp; Conflict</b>	Civil War, Terrorism
<b>Credit-worthiness</b>	Sovereign, Provincial
<b>Civil Society Pressure</b>	Boycotts, Sanctions
<b>Policy Change</b>	Taxation, Regulatory
<b>Policy Failure Event</b>	Banking Crisis, Fiscal Crisis
<b>Currency</b>	Volatility, Convertibility
<b>Interest Rate</b>	Domestic, Foreign
<b>Competition</b>	Foreign, Domestic
<b>Financial System</b>	Payments, Access
<b>Legal</b>	Laws, Enforcement
<b>Infrastructure Service Failure</b>	Transport, Power
<b>Business Disruption</b>	Int. Factors, Acts of God
<b>Global Impact Event</b>	Sept 11 <sup>th</sup> , Oil Price Shock
<b>Natural Event</b>	Earthquake, Flood
<b>Business Strategy &amp; Market</b>	Market Demand, Technology
<b>Management Systems &amp; Operations</b>	Production, Control
<b>Business Support</b>	Accounting, Recruitment
<b>Technology</b>	New Proven, Equipment
<b>Credit</b>	Borrower, Supplier
<b>Balance Sheet</b>	Debt / Equity Structure, Asset Liability
<b>Liquidity</b>	Cash-flow, Interest Cover
<b>Capital Adequacy</b>	Equity, Debt Burden
<b>Income Statement</b>	Profitability, Return on Assets
<b>Fraud &amp; Corruption</b>	Employee, Government
<b>Environmental Factors</b>	Air Pollution, Water Pollution

Source: Mistry and Oleson (2003)

Many of the risks shown in the chart above are often less material for SME investors in emerging markets than other investors in LDCs. This study identifies and categorizes those risks most salient to SME investors in a manner that allows effective assessment of risk mitigation potential.

With the SME investor in mind, we distinguish between **two high-level categories of risks**.

- **Controllable risks**
  - These are “risk events” (i.e. specific, definable occurrences) that investors and entrepreneurs can directly influence or mitigate – e.g. the risk of poor strategic decisions, of employee fraud, or of business failure due to lack of market demand.
- **Non-controllable risks**
  - This includes two subcategories.
    - The first sub-category involves risks whose occurrence cannot be controlled, and to which a discrete, pre-defined risk event cannot be prescribed. For example, an economic downturn may impact the viability of an investment, but no specific event, whose probability of occurrence can be estimated in advance, lends itself to straightforward risk mitigation.
    - The second involves non-controllable risk events whose probability can be, to some extent, estimated, be they “acts of God”, currency devaluation, civil war, etc.

Notwithstanding the distinction between controllable and non-controllable risks, further categorization of SME investment risks is necessary for effective assessment of risk mitigation potential. Based on research and discussions with a diverse group of approximately 50 investors in emerging markets, three high-level risk categories emerged:

- **Political risks (P):** events caused by action or inaction by governments and government entities
- **Market risks (M):** events that occur due to movements and fluctuations of financial markets, capital markets, the general business environment, and other events beyond a business’ control
- **Business risks (B):** events that arise from the operation and financing of individual enterprises

This categorization follows a principle that could be called “operable disaggregation” – i.e. there is significant potential for mitigating risks in these categories on top of other risk mitigation techniques currently used, such as portfolio diversification, investment due diligence, etc. Further, the categories are useful due to various risk mitigation actors operating or innovating in these discrete areas.

In addition to risk categorization, the degree of risk aggregation is an important factor in providing effective risk mitigation. Risk disaggregation is important for effective and, more importantly, cost effective risk mitigation. When risks are singled out, assessed for probability of occurrence and priced accordingly, risk mitigation is more transparent, investment-specific and adapted to investor risk appetite.

Not all risks are graded equally, however. As mentioned earlier, investors in emerging market SMEs have different risk concerns and appetites than other investors. A core element of the research study was to identify what types of risks are most salient for SME investors. The resulting anecdotal but illustrative categorization of risk materiality (based on the Mistry and Oleson risk chart on the previous page) follows, showing how investors ranked the investment risks that could influence their ability to invest (or attract co-investment) in enterprises, or as salient in their loss causing potential.

Table 2: Investors ranking of risk materiality

Risk type	Low	Medium	Top of Mind
<b>Controllable Risks</b>	<ul style="list-style-type: none"> <li>▪ Environmental Factors (B)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Technology (B)</li> <li>▪ Credit (B)</li> <li>▪ Liquidity (B)</li> <li>▪ Balance Sheet (B)</li> <li>▪ Income Statement (B)</li> <li>▪ Capital Adequacy (B)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Business Strategy &amp; Market (B)</li> <li>▪ Mgmt. Systems and Operations (B)</li> </ul>
<b>Non-controllable Risks</b>	<ul style="list-style-type: none"> <li>▪ Business Support (M)</li> <li>▪ Financial System (M)</li> <li>▪ Competition (M)</li> <li>▪ Interest Rate (M)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Global Impact Event (M)</li> <li>▪ Policy Failure Event (P)</li> <li>▪ Legal (M)</li> <li>▪ Credit Worthiness (P)</li> <li>▪ Natural Event (B)</li> <li>▪ Civil Society Pressure (P/M)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Political (P)</li> <li>▪ War &amp; Conflict (P)</li> <li>▪ Policy Change (M/P)</li> <li>▪ Currency (M)</li> <li>▪ Infrastructure Service Failure (M)</li> <li>▪ Business Disruption (B/M)</li> <li>▪ Fraud &amp; Corruption (B/P)</li> </ul>



B: Business Risk, M: Market Risk, P: Political Risk

The chart on the previous page shows that SME investors were consistently concerned with both the “internal” viability of the investments and the “external” factors impacting both business viability and net investment returns.

Following the analysis of material risks to SME investors, the next step was to identify and assess the risk mitigation mechanisms currently available.

### 3.2 Risk Mitigation Research and Benchmarking

Parallel to identifying and categorizing investment risks, the study involved a market survey of currently available risk mitigation mechanisms. The benchmarking resulted in the identification of six broad categories of risk mitigation mechanisms available to investors in emerging market SMEs:

- Derivatives
- Investment Guarantees / Credit Enhancement
- Public Insurance
- Commercial Insurance
- Securitization
- Portfolio Diversification

The definition and an assessment of each of these options are found below. All of the listed mechanisms have a useful place in the developing field of SME investment risk mitigation. The SIRIF study is concerned, however, with identifying gaps in the risk mitigation “market” – i.e. showing which mechanisms can be adapted to fill SME investor needs, and where new mechanisms are needed.

For a full list of examples see section 5.2.3.

Table 3: Overview of risk mitigation mechanisms

Mechanism	Definition	Examples	Cost	Risk Cover	Benefits	Investment Restrictions
<b>Derivatives</b>	An investment tactic in which securities are purchased on both sides of a risk, so that any loss in one security is countered by gains in the other securities.	<ul style="list-style-type: none"> <li>▪ Currency hedging</li> <li>▪ Commodities futures</li> <li>▪ Credit default swaps</li> </ul>	3 – 8% of investment	<ul style="list-style-type: none"> <li>▪ Market risks</li> <li>▪ Business risks (limited)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Can be tailored exactly to transaction</li> <li>▪ No investor restrictions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Duration can be too limited</li> <li>▪ Certain derivatives (e.g. swaps) not appropriate for non-securitized assets</li> </ul>
<b>Investment Guarantees / Credit Enhancement</b>	An agreement between a creditor and a guarantor which sets forth the terms and conditions under which the guarantor will pay the debts or obligations of another person	<ul style="list-style-type: none"> <li>▪ GARI West Africa Investment Guarantee Fund (GARI)</li> <li>▪ USAID partial credit guarantees</li> <li>▪ European Investment Fund credit guarantees</li> </ul>	0.5 – 3% of investment / expected return	<ul style="list-style-type: none"> <li>▪ Political risks</li> <li>▪ Business risks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Covers all categories of risk (except, in some cases, currency risk)</li> <li>▪ Often subsidized</li> </ul>	<ul style="list-style-type: none"> <li>▪ Applicable to loans to projects within remit of guarantee institution (e.g. GARI countries, EU SMEs)</li> <li>▪ Available only to credit providing financial institutions</li> <li>▪ Existing investments often can't be guaranteed</li> <li>▪ Coverage often limited to 50% of investment</li> <li>▪ Developing country institutional guarantees can fail in times of crisis</li> </ul>
<b>Public Insurance</b>	A contract in which a publicly-backed	<ul style="list-style-type: none"> <li>▪ Multilateral Investment</li> </ul>	0.3 – 3% of investment /	<ul style="list-style-type: none"> <li>▪ Political risks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Flat pricing structure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Some investors excluded (e.g. from host country,</li> </ul>

Mechanism	Definition	Examples	Cost	Risk Cover	Benefits	Investment Restrictions
	underwriter agrees to pay for another party's financial loss resulting from a specified, agreed event that can be anticipated, and whose probability of occurrence can be adequately estimated	<ul style="list-style-type: none"> <li>Guarantee Agency (MIGA)</li> <li>Overseas Private Investment Corporation (OPIC) insurance</li> <li>UK Export Credit Guarantee Department export insurance policy</li> </ul>	expected return	<ul style="list-style-type: none"> <li>Business risks</li> </ul>	<ul style="list-style-type: none"> <li>Covers extremely high-risk countries</li> <li>"Soft" power of IFIs selling coverage in times of crisis</li> </ul>	<ul style="list-style-type: none"> <li>or certain sectors)</li> <li>Transaction costs too high for small investments</li> <li>Lengthy application process</li> <li>Information requirements onerous</li> <li>Single investments only (i.e. no portfolios)</li> <li>Full coverage not available (often limited to political risk coverage)</li> <li>Host country approval required</li> <li>Minimum guarantee period</li> <li>Investment confidentiality not possible</li> </ul>
<b>Commercial Insurance</b>	A contract in which a commercial underwriter agrees to pay for another party's financial loss resulting from a specified, agreed event that can be anticipated, and whose probability of occurrence can be adequately estimated	<ul style="list-style-type: none"> <li>Commercially underwritten political risk insurance (e.g. AIG)</li> </ul>	Up to 3% of investment / expected return	<ul style="list-style-type: none"> <li>Political risks</li> <li>Business risks (limited)</li> </ul>	<ul style="list-style-type: none"> <li>Highly flexible coverage and contract structure</li> <li>Fast processing speed</li> <li>Streamlined portfolio coverage process</li> <li>All investment types coverable</li> </ul>	<ul style="list-style-type: none"> <li>Transaction costs too high for very small investments (from insurer perspective)</li> <li>Insurance costs too high for some investors</li> <li>Contract duration limited to 5-6 years</li> </ul>
<b>Securitization</b>	The process of gathering a group of debt obligations such as mortgages into a pool, and then dividing that pool into portions that can be sold as securities in the secondary market.	<ul style="list-style-type: none"> <li>IFC Global Microfinance Facility*</li> <li>Microfinance Bond (Blue Orchard, Developing World Markets, etc.)</li> </ul>	1-3% of investment* (for liquid securities)	<ul style="list-style-type: none"> <li>Political risks</li> <li>Market risks</li> <li>Business risks</li> </ul>	<ul style="list-style-type: none"> <li>Scaleable</li> <li>Covers all risk categories (except some currency and political risks)</li> <li>More stable returns</li> </ul>	<ul style="list-style-type: none"> <li>Limited number of investment types are suitable (primarily debt obligations)</li> <li>Limited securitization of SME loans available</li> <li>Lengthy transaction process for new investments</li> <li>Higher transaction costs for unlisted, illiquid securities</li> </ul>
<b>Portfolio Diversification</b>	A risk-reduction strategy that involves spreading assets across a mix of companies, industries, geographic areas, maturities, and/or investment categories.	<ul style="list-style-type: none"> <li>Standard diversification strategies</li> <li>Deutsche Bank Microfinance Fund</li> <li>responsAbility MFI re-financing fund</li> </ul>	1-3% of investment (depending on security type)**	<ul style="list-style-type: none"> <li>Political risks</li> <li>Market risks</li> <li>Business risks</li> </ul>	<ul style="list-style-type: none"> <li>Scaleable</li> <li>Covers all risk categories (except some currency and political risks)</li> <li>More stable returns</li> </ul>	<ul style="list-style-type: none"> <li>High transaction costs for unlisted securities</li> <li>No reduction of disaggregated businesses risk; blunt risk mitigation instrument</li> <li>High transaction costs for new projects</li> <li>Limited access most investors</li> </ul>

\*See Raines (2006); \*\*Rough estimates as limited market data available

### 3.3 Mechanism Gap Identification

Given an understanding of the investment risks that are material to SME investors, and an overview of the mechanisms currently available to investors, the next step was to identify the gaps between what is currently on offer and what investors need. Which improvements to existing mechanisms – or what kinds of new mechanisms – could spur an increase in investment in SMEs?

Identification of the risk mitigation mechanism gap for SME investors was developed using the following parameters:

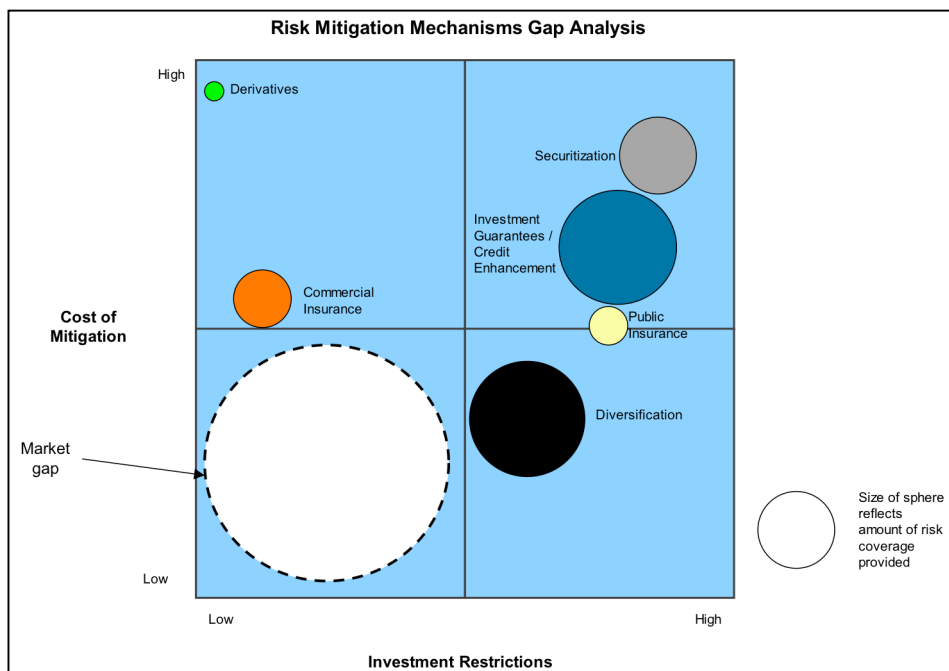
- Cost of mitigation: representing both the premium paid to the underwriter (broadly speaking, 1-8% of investment), and the transaction cost (in effort and fees) associated with execution; position on the chart is a hybrid between the two – i.e. a high position on the chart can mean either high premiums or high transaction cost, or combination of the two
- Amount of risk coverage: type and proportion of investment risk mitigated by the mechanism
- Investor restrictions: type and provenance of investor allowed to use the mechanism

The resulting analysis gave an indication – figurative only, based on mechanism research – of a gap in the market for risk mitigation mechanisms characterized by:

- **Minimal coverage cost** – i.e. costing less than 2% of underlying investment
- **Low transaction cost** – i.e. minimal investor time and effort required
- **Broad but disaggregated risk coverage** – i.e. covering any combination of political, market and business risks
- **Few investment restrictions** – i.e. allows any type of investor to cover, and any investment to be covered

It is important to note that this gap analysis was a “snap-shot” of the current situation in the market. Further risk mitigation study should involve monitoring of risk mitigation innovation and investor perceptions. Interestingly, most investors consulted were ill informed about available risk mitigation mechanisms – indicating market inefficiency with regards to available information.

Figure 2: Risk mitigation mechanisms gap analysis



Source: Gaines & Karius 2006

### 3.4 Insurance mechanism modeling

In light of the gap identified above, there is scope to explore and test mechanisms that might more effectively mitigate SME investment risks. Given the wide availability – and, in the context of SME investments, relative untested nature – of insurance-based risk mitigation, and its potential to fill the risk mitigation mechanism gap, this was first type of mechanism tested. Clearly categories and corresponding mechanisms in the risk mitigation market deserve the same treatment.

The testing of insurance mechanisms via actual SME investment transactions required a so-called mechanism modeling exercise, with the goal of identifying the most appropriate type of insurance-based mechanism. A number of insurance models exist for covering investment risks, involving different product types, distribution networks, product providers and underwriting processes.

The clear outcome of the modeling work was that the “specialist broker / underwriter” model – such as that in the Lloyd’s insurance market – is best positioned to offer insurance-based risk mitigation for SME investments. Due to the nature of the coverage – i.e. a high emphasis on often volatile political and market risks in emerging markets – these specialized underwriters have the capacity to provide the bespoke coverage required by SME investments. Most generalist insurers like Axa or Allianz do not operate in this field (although some may have affiliates operating under the specialist broker / underwriter model).

The mitigation of investment risks via an insurance mechanism also requires the definition and design of an insurance product or coverage. The word “coverage” is used in the sense that insurance covers, or pays out on, losses associated with an agreed selection of risks.

As with most forms of insurance – e.g. automotive or health insurance – purchasers of insurance have the option of choosing how much cover they wish to pay for. Taking the example of auto insurance, the minimum coverage required in most countries involves a driver’s liability for damage to third parties. All auto insurance companies offer this product, but will also offer more extensive coverage – e.g. for damage to the owner’s car and personal injury to the owner. The same principle should apply to SME investment insurance.

The following chart highlights five potential insurance-based models, giving examples of the types of underwriting organizations, and advantages and constraints of the models.

Table 4: Overview of insurance-based models

Model	Definition	Under-writers	Advantages	Constraints	Comments
<b>Off-the-shelf insurance product</b>	<ul style="list-style-type: none"> <li>Large, multi-national insurers sell standardized “development investment insurance” coverage via current distribution network</li> </ul>	<ul style="list-style-type: none"> <li>AIG</li> <li>Allianz</li> <li>Zurich Financial Services</li> </ul>	<ul style="list-style-type: none"> <li>High level of competition, with possible effect on pricing</li> <li>Insurance organization and processes already in place</li> </ul>	<ul style="list-style-type: none"> <li>High relative investment costs</li> <li>High relative transaction costs</li> <li>Lack of market expertise</li> <li>Too expensive</li> <li>Risks too volatile to create standardized products</li> <li>Key risks possibly not commercially insurable</li> </ul>	<ul style="list-style-type: none"> <li>Potential revenues too small, set-up and transaction costs too large to justify this new line or business for “off-the-shelf” insurance companies</li> </ul>
<b>Local insurance coverage</b>	<ul style="list-style-type: none"> <li>Standard property and casualty (e.g. theft, fire, liability, workers compensation, etc.) coverage</li> </ul>	<ul style="list-style-type: none"> <li>Local insurers</li> </ul>	<ul style="list-style-type: none"> <li>Local market knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Limited coverage of complicated, “international” or bespoke risks</li> <li>Local political crises can affect local insurer’s ability to pay claims</li> </ul>	<ul style="list-style-type: none"> <li>Standard coverage should be ensured by investor due diligence process</li> <li>Not a viable model for more complicated risks</li> </ul>

Model	Definition	Under-writers	Advantages	Constraints	Comments
<b>Specialist broker / underwriter</b>	<ul style="list-style-type: none"> <li>Specialist risk brokers work with Lloyd's market and other specialist underwriters to sell bespoke coverage to investors</li> </ul>	<ul style="list-style-type: none"> <li>Aon</li> <li>Marsh</li> <li>Lloyd's</li> </ul>	<ul style="list-style-type: none"> <li>Market expertise already exists</li> <li>Insurance organization and processes already in place</li> <li>Specialist underwriters and brokers are flexible enough to deal with varied requirements of developing market investments</li> <li>Size of potential market / premiums appropriate to scale of specialist insurers / brokers</li> </ul>	<ul style="list-style-type: none"> <li>Access to investors might be too restricted / not enough competition to spur new emerging market investment</li> <li>Can often be too expensive for certain investors</li> <li>Key risks possibly not commercially insurable</li> </ul>	<ul style="list-style-type: none"> <li>Seems suited to partially fill identified gap</li> </ul>
<b>Insured investment packages</b>	<ul style="list-style-type: none"> <li>Investment funds sell insured investment tranches to investors</li> </ul>	<ul style="list-style-type: none"> <li>Any of the above</li> </ul>	<ul style="list-style-type: none"> <li>Risk-return profile of investments including insurance easier for less informed investors to understand</li> </ul>	<ul style="list-style-type: none"> <li>All of above constraints</li> <li>Legal constraints to bundling investments with insurance</li> </ul>	<ul style="list-style-type: none"> <li>Could be a variant of "specialist broker / underwriter" model</li> </ul>
<b>Hybrid underwriter</b>	<ul style="list-style-type: none"> <li>Commercial insurers underwrite marketable risks; publicly-backed underwriters take on non-marketable risks</li> </ul>	<ul style="list-style-type: none"> <li>All of the above</li> <li>Multi- or bilateral development agencies</li> </ul>	<ul style="list-style-type: none"> <li>Ideal private-public partnership</li> </ul>	<ul style="list-style-type: none"> <li>Unwillingness of commercial insurers to involve public agencies</li> <li>Slow processing times of public agencies</li> <li>Risk averseness of public agencies; inability to take on non-marketable risks</li> <li>Revenues too small to warrant risk sharing</li> </ul>	

Preliminary research and interviews with investors enabled the identification of a set of coverage options that could be offered via specialist underwriters / brokers – focusing initially on political risk insurance (PRI). PRI most lent itself for the following reasons:

- Wide variety of readily available service providers
- Largely untapped potential
- Flexible coverage approach (for risk disaggregation and portfolio coverage)
- Potential to partially fill the mechanism gap

The following table sets out the detailed political risk cover and the potential risk underwriter.

Table 5: Detailed political risk cover

Detailed Political Risk Cover	Underwriters
Expropriatory act, Currency inconvertibility and non-transfer Political violence War and Civil War Forced Divestiture	<ul style="list-style-type: none"> <li>▪ <b>Commercial political risk insurers</b></li> <li>▪ <b>MIGA</b></li> <li>▪ <b>OPIC, other bi-lateral insurers</b></li> </ul>
Import / export embargo Operating license cancellation Non-honoring of share purchase agreement Non-honoring of an arbitration award Selective discrimination Commercial non-performance by a foreign government Non-honoring of sovereign guarantee Exceptional duties, taxes and fines Non-honoring of contract (by foreign government)	<ul style="list-style-type: none"> <li>• <b>Commercial political risk insurers</b></li> </ul>

In summary, there is potential to test the specialist broker / underwriter insurance model, offering disaggregated political risks insurance options, on actual SME investments.

### 3.5 Re-insurance Mechanism Modeling

Re-insurance mechanisms also have potential to mitigate risks on SME investments, as the current re-insurance model (i.e. insurers buying insurance from re-insurers) could be a factor that restricts insurers' ability to offer appropriate insurance coverage. Using the same methodology as with insurance-based mechanisms three options for re-insurance-based mechanisms were identified.

The following table highlights three potential insurance-based models, giving examples of the types of underwriting organizations, and advantages and constraints of the models.

Table 6: Overview of insurance-based models

Re-Insurance Model	Re-Insurance Mechanism Description	Re-Insurance Underwriters	Constraints	Advantages	Comments
<b>Commercial re-insurance</b>	<ul style="list-style-type: none"> <li>▪ Commercial underwriter / insurer underwrites all primary risks</li> <li>▪ Commercial re-insurer provides ad hoc re-insurance to commercial underwriter / insurer</li> </ul>	<ul style="list-style-type: none"> <li>▪ Swiss Re, Munich Re, etc</li> </ul>	<ul style="list-style-type: none"> <li>▪ Certain primary risks (market, business risks) cannot be underwritten by commercial underwriters / insurers</li> <li>▪ Re-insurers don't underwrite primary risks</li> <li>▪ Insured amounts too small and transaction costs too high for ad-hoc re-insurer to be worthwhile</li> </ul>	<ul style="list-style-type: none"> <li>▪ Re-insurance processes already in place and seamless</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not feasible for development investment insurance</li> <li>▪ Standard re-insurance will be purchased by insurers along normal business needs in any case</li> </ul>
<b>International Financial Institution</b>	<ul style="list-style-type: none"> <li>▪ Commercial underwriter / insurer underwrites all primary risks</li> </ul>	<ul style="list-style-type: none"> <li>▪ World Bank, IFC, MIGA, other bi-lateral financial</li> </ul>	<ul style="list-style-type: none"> <li>▪ Insurers not willing / legally able to underwrite all primary risks (e.g. market or</li> </ul>	<ul style="list-style-type: none"> <li>▪ Single insurance partner for insured parties</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not feasible for development investment insurance</li> </ul>

Re-Insurance Model	Re-Insurance Mechanism Description	Re-Insurance Underwriters	Constraints	Advantages	Comments
(IFI) re-insurer	<ul style="list-style-type: none"> <li>International Financial Institution (IFI) provides ad hoc re-insurance to commercial underwriter / insurer</li> </ul>	institutions	certain business risks) <ul style="list-style-type: none"> <li>Re-insurance of risks is not necessarily required – rather co-insurance</li> <li>Complicated processes required between insurers and IFIs to pay losses</li> </ul>		
IFI insurance pool	<ul style="list-style-type: none"> <li>Same as above except that an administered insurance pool acts as insurer of non-commercial risks</li> </ul>	<ul style="list-style-type: none"> <li>Same as above</li> </ul>	<ul style="list-style-type: none"> <li>Set up costs</li> <li>Difficulty in setting up long-term pool, as required for certain contracts</li> <li>Administrative oversight and active management of pool required</li> </ul>	<ul style="list-style-type: none"> <li>Any specialist underwriter or broker can set up agreement with participating IFIs</li> <li>Allows broader coverage to insured parties</li> <li>Speed and accuracy of specialist underwriters</li> <li>Multiple IFI partners possible – need only be party to the pool</li> </ul>	<ul style="list-style-type: none"> <li>Does not constitute reinsurance per se, but “co-insurance”</li> <li>Could be pursued as a future model</li> </ul>

Despite theoretical potential, re-insurance does not seem to be as promising a field as insurance does for SME investment risk mitigation. Firstly, the cost of re-insurance does not seem to be a major factor in whether or not insurers offer PRI to SME investors. Secondly, individual transactions (and even larger portfolios) are too small to warrant alternative models of re-insurance (for example the “ad hoc” re-insurance described above). Thirdly, the losses on SME investments are not large enough for re-insurance to be an important factor.

### 3.6 Mechanism Piloting

The aim of the risk mitigation pilot phase was to test the applicability of currently available but underutilized commercial mechanisms with actual investments. The survey of approximately 50 investors / institutions then led to the testing of a number of actual investment portfolios. The chosen mechanism was insurance of equity and debt investments, based on the “specialist broker / underwriter” insurance model described in the previous section. The piloting process consisted of three phases:

1. Pilot project / portfolio identification: surveying the SME investment market; selecting initial investors and investments to be used as pilots
2. Risk profile analysis: determining the risk profile of the investment portfolio:
3. Pricing: determining the price ranges of risk mitigation of possible PRI coverages

The same investors who gave their views in the SIRIF study’s risk identification and classification phase also provided a number of actual investment cases to test the market demand for PRI using the specialist broker / underwriter model see section 5.2.1 for a list of investors consulted.

In addition, the findings served to develop an approximate profile of which types of investors demonstrated the highest interest in applying risk mitigation mechanisms. Although the distinction between “low-,” “medium-“, and “high-interest” investors is not strict, those interested in applying insurance based risk mitigation, and in particular PRI, displayed a number of specific criteria. The table on the next page summarizes the key findings from the investor profiling exercise.

Table 7: Investor profiling – Insurance based risk mitigation

Insurance based risk mitigation			
Criteria	Low interest	Medium interest	High interest
Location of investment <sup>4</sup>	▪ n/a	▪ Low-risk EMEs <sup>5</sup> ▪ Mid-risk EMEs	▪ High-risk EMEs ▪ LDCs
Investment Size (portfolio)	▪ < US\$500,000 ▪ > US\$30m	▪ < US\$1m ▪ > US\$10m	▪ \$1m - US\$10m
Capital requirement	▪ Existing portfolios – no new capital required	▪ Existing portfolios – raising new capital	▪ New portfolio – sole investor ▪ New portfolio – seeking co-investors
Expected returns	▪ Up to 5%	▪ 5%-10%	▪ >10%
Product Type	▪ Equity (listed entities)	▪ Securitizations (unlisted entities) ▪ Debt financing (unlisted entities)	▪ Equity (unlisted entities)
Investor Type	▪ Pension funds ▪ Mutual funds ▪ University Endowments	▪ Trad. PE / VC ▪ SRI Funds ▪ Micro-finance Funds	▪ Foundations ▪ Private Investors ▪ Micro-equity funds ▪ Venture Philanthropists
Investor Profile	▪ Multi-country, multi-asset diversification	▪ Specific EME exposure	▪ Initial EME investment
Cost	▪ > 150 basis points per annum	▪ 50-150 basis points per annum	▪ Up to 50 basis points per annum

The latter investors were particularly interested in understanding the actual political risk profile of their investments. Participating political risk underwriters, the Hiscox Syndicate on the Lloyd's market, enabled detailed discussion of individual coverage options and corresponding price estimates. Four of these cases are shown in the table below.

Table 8: Specific portfolio coverage option and price estimates

Investment	Size	Risks	Annual Cost
Notes of securitization of SE Asia MFI micro-loans	▪ US\$20m	▪ Currency inconvertibility ▪ War / Civil War ▪ Political Violence	▪ 125 bps
Debt investment in SE Asian MFI	▪ US\$1m	▪ Expropriation ▪ Selective Discrimination ▪ Currency inconvertibility	▪ 70 bps
SE Asia micro-equity portfolio	▪ US\$3m	▪ Confiscation ▪ Selective discrimination	▪ 150 bps
East Africa SME private equity / debt portfolio	▪ US\$2.8m	▪ Confiscation ▪ Selective discrimination	▪ 175 bps

<sup>4</sup> Note: EME = emerging market economy

<sup>5</sup> E.g. based on classifications from Marsh, [www.marsh.com](http://www.marsh.com)



A summary of the key mechanism piloting findings is as follows:

- **Investor range:** Interested investors in political risk insurance (PRI) based risk mitigation had a total investments of up to US\$30m comprised of multiple investments of between US\$100,000 and US\$5m
- **Coverage options:** Investors in *portfolios* of SME investments in emerging markets can purchase political investment insurance covering the following risks: Expropriation, Selective discrimination, Currency inconvertibility and non-transfer, Political violence, War and Civil War.
- **Competitive pricing:** The price range of PRI is roughly between 0.25-1.5% (or 25-150 basis points) of the investment exposure per annum.
- **Flexible product design:** The prices quoted are indicative; no transactions had taken place as of publishing. A clear advantage of commercial insurers, however, is the ability to structure the product flexibly. The prices above are reflective of 100% cover of the investment exposure. If all investments in the portfolio fail at the same time, all will be covered.

Taking a “per risk” approach, however, will reduce the cost of insurance. Given a portfolio of five investments, this approach covers losses *in any one or more* (up to four) of the investments. The logic is that the chance of all five investments producing losses at once is lower than one or two producing losses. The insurance exposure is thereby lessened – reducing, in turn, the price of coverage. Further product configurations that provide coverage that specific investors want, at a price that is palatable, are available from commercial insurers.

- **Portfolio approach:** The pilots have also shown that a “portfolio approach” to insuring SME investments is key to workable insurance-based risk mitigation. It is clear that individual investments of less than US\$1m are difficult to insure profitably (from the perspective of the insurer) due to the underwriting transaction costs. Given that the underwriting activity (information gathering, due diligence, underwriting decision, etc.) is largely the same for both a US\$1bn investment and a US\$1m investment, the interest will be tilted towards the larger investment. Insuring portfolios of smaller investments is therefore a potential solution.

Many publicly run insurers are required to perform costly due diligence (often on the ground in the country of investment) on each investment in the portfolio, effectively destroying the benefit of the investment aggregation. Commercial insurers, however, can take a different tack: investors perform and legally warrant the due diligence, thereby allowing the insurer to protect itself and lighten the underwriting process at the same time. This not only makes it less expensive to insure but also speeds up the underwriting process. Instead of 2-6 months, a commercial insurer can produce a policy in two weeks.

## 4. Conclusions

The following main conclusions could be drawn from the study:

**Conclusion 1: More effective mitigation of a limited number of risk categories would enable an increase in private sector capital flows to emerging market small and medium size enterprises and social ventures (SMEs).**

Some of the more material risk categories to SME investors are as follows:

- Political
- War & Conflict
- Government Policy Change
- Currency
- Fraud & Corruption
- Business Disruption
- Business Strategy & Marketing
- Management Systems and Operations

SME investors express a demand for risk mitigation mechanisms characterized by minimal coverage cost, low transaction cost, broad but disaggregated risk coverage and few investment restrictions. If these risks could be more readily mitigated the result would be more new investment and co-investment.

**Conclusion 2: New investments have a greater need for risk mitigation than existing investments**

The greatest interest in risk mitigation mechanisms came from investors setting up new investments and from those seeking co-investment in new and existing projects. The additional cost associated with risk mitigation makes them unattractive for existing investments where the cost structures are already set.

**Conclusion 3: Risk disaggregation can enable more effective risk mitigation.**

The ability to single out and mitigate individual risks and risk categories unlocks the potential for more effective risk mitigation. Blunt instruments that mitigate aggregated investment risks (e.g. securitization) can be effective, but are often cumbersome and inevitably address risks that don't require mitigation. The ability to mitigate any desired combination of risks or risk categories would enable investors to choose risk mitigation packages appropriate to their risk appetite and specific investment.

**Conclusion 4: A streamlined "investment portfolio approach" to mitigating risks is required in order to utilize currently available mechanisms more effectively.**

Transaction costs are largely the same regardless of investment size. This puts individual SME investments at a relative disadvantage to larger investments, and makes many risk mitigation mechanism uneconomical for both investors and service providers. Treating investments in SME portfolios as much as possible like a single-asset investment rather than a basket of individual investments would allow the scale to bring more risk mitigation mechanisms into reach.

**Conclusion 5: Political Risk Insurance has the potential to fill a segment of the gap in SME investment risk mitigation.**

Political Risk Insurance (PRI) - especially that available from commercial insurers - fulfills the major criteria of a mechanism required by SME investors of minimal coverage cost, low transaction cost, broad but disaggregated risk coverage and few investment restrictions. Based on the SIRIF study's mechanism piloting work, this is feasible.

Investments with the greatest potential for PRI coverage generally exhibit the following characteristics:

- Located in high-risk countries
- Portfolio size between US\$1m-10m
- Portfolio requires new capital (vs. existing investment)
- Substantial return on investment (> 10% annually)
- Involves equity financing
- Involving one or more "first-time" emerging market investor

PRI also has the ability to flexibly insure disaggregated risks and cover SME investments using an “investment portfolio approach.”

While investments fulfilling the above criteria comprise only one segment of the SME investments, a growing number of investors would like to invest in it. And when presented with the possibility of PRI coverage, the number increases substantially. Innovation in PRI, through expansion of available coverage, would increase its potential even further. Some examples of potential innovation are: creeping expropriation, contract frustration, policy and regulatory risk, politically motivated business disruption.

Despite the availability of effective private market mechanisms, many surveyed investors were unaware of their existence – indicating market inefficiency with regards to available information. Further risk mitigation study should involve monitoring of risk mitigation innovation and investor perceptions.

**Conclusion 6: Effective commercially oriented mechanisms covering currency risk and credit risk would go even further in closing the gap in the risk mitigation market.**

In addition to PRI, there is a demand for the mitigation of currency and credit risk. Testing these mechanisms went beyond the scope of the SIRIF study, but investor interest would seem to warrant further development.

**Conclusion 7: Enhancement of risk mitigation mechanisms with international development aid would increase their availability to a larger segment of SME investors.**

There will always be an important segment of SME investments that cannot access the commercially oriented mechanisms tested or proposed in this paper. Such investments either don't produce high enough returns to pay for effective risk mitigation or are so risky that currently available risk mitigation mechanisms do not remove enough risk to attract investors. But insurance, derivative and credit guarantee / enhancement mechanism all have significant potential for aid-enhancement. Currently there are successful examples of development aid such USAID partial credit guarantees, MIGA political risk insurance, etc. that are being used to enhance these types of mechanisms worldwide. These models are working for many emerging market investors, and could be adapted to better suit SME investors.

**Conclusion 8: The effort and cost required to arrange comprehensive risk coverage from applicable mitigation service providers is too great for most SME investors.**

What is required is a mechanism to provide full risk mitigation coverage fulfilling the “mechanism gap” criteria (see conclusion 4) inexpensively and in one place.

A potential model for such a mechanism is shown on the next page.

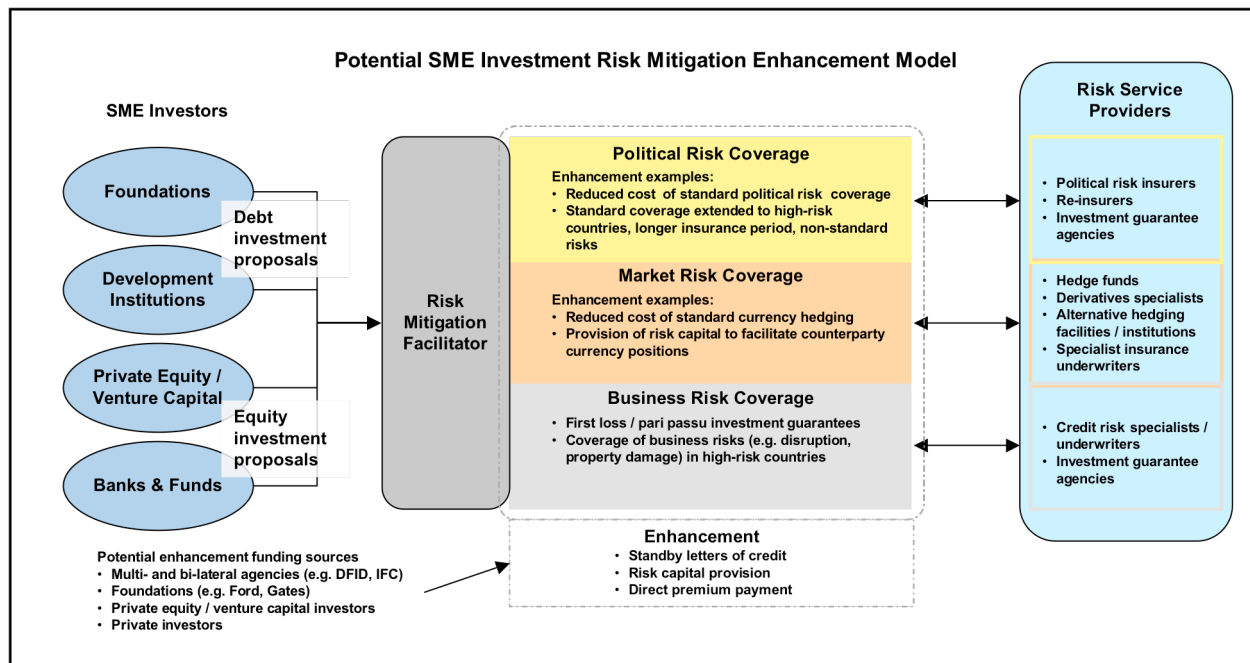


Figure 3: Potential SME Investment Risk Mitigation Enhancement Model

## 5. Next steps

As a result of discussions with investors who participated in the SIRIF study, a number of specific development investment opportunities emerged that would be facilitated with development aid-enhanced risk mitigation. Given the potential leverage effect on private sector investment (estimated at approximately 1:10 or more – i.e. one dollar of development aid would lead to ten dollars in additional private sector investment), both development aid institutions and other similar actors (such as foundations and philanthropic investors) should be engaged to participate in these transactions.

Step 1: develop specific risk mitigation options for selected investments for presentation to risk mitigation actors and development aid institutions

Step 2: engage development aid institutions to explore approaches to enhancing risk mitigation transactions

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## Appendix

### Team and Advisory Committee

The core project team consisted of Oliver Karius, Managing Director, VantagePoint Global and Andrew Gaines, Founder, Gaines & Partner, with additional project steering and advisory support provided by Maritta von Bieberstein Koch-Weser, CEO, GEXSI and former Director General of the World Conservation Union – IUCN; and Alois Flatz, President, VantagePoint Global, Managing Partner, BTS Investment Advisors and co-founder of the Dow Jones Sustainability Index.

The SIRIF study has also benefited from the advice of a range of leading thinkers and practitioners in the fields of international development, risk mitigation, and finance.

- Priya Basu, Lead Economist, Finance & Private Sector, The World Bank, India
- Lord Daniel Brennan QC, member of Matrix Chambers; former Chairman of the Bar of England and Wales
- Bruno Porro, former Chief Risk and Re-Insurance Officer, Swiss Re-Insurance Company
- Peter Wheeler, Chairman, IPValue; Chair of Futurebuilders England; former Partner and MD, Goldman Sachs
- Peter Woicke, Executive Vice President, International Finance Corporation
- Ernesto Zedillo, Director, Yale Center for the Study of Globalization; former President of Mexico