

Chapter 12

Risk Blind Investing



Financial markets have expanded since the 1980s, but the **right incentives** to integrate disaster risk management into business investment decisions **have not been provided**.

Investing has become an increasingly short-term and speculative activity, **losing sight of longer-term and systemic risks**. At the same time, asset owners and beneficiaries of pension and sovereign wealth funds have become **increasingly disconnected** from how their money is being invested, **weakening responsible** and accountable **investment behaviour**.

Risks, including **disaster risks**, are **rarely visible**, hidden in complex and opaque financial instruments. And analytical reports, models and **forecasts ignore disaster risk**. This has a profound effect on the way investment markets operate, building up new **hidden risks** in private finance.

12.1 Deregulation and expansion of financial capital

The inherent logic of expanding and increasingly fast-moving capital markets has created new risks that materialised with severe global effects in the financial crash of 2007–2008. Disaster risk is another hidden risk that financial markets are still ignoring.

The deregulation of financial markets since the 1980s has stimulated a staggering increase in the volume of financial capital linked to increasingly short-term investment behaviour and speculation (UNCTAD, 2011). By the end of 2010, total value of financial assets across the globe had reached US\$212 trillion (comprising equity market capitalisation and outstanding bonds and loans).

At the same time, financial capital has been concentrated in a limited number of large institutions and in a largely unregulated ‘shadow banking system’ (UNCTAD, 2011). This shadow banking system is a complex value chain of intermediaries, including investment banks, hedge funds and equity funds and instruments that enable assets to be moved around the world through a large number of financial instruments that enable investment in physical assets as well as in production and services (Ibid.). The scale of this shadow banking system has become so vast that by early 2008, it was estimated that assets under its management in the

United States of America alone amounted to almost US\$20 trillion (Ibid.).

The financial market has developed the ability to respond and adapt quickly to benefit from short-term profit-making opportunities. However, markets are more challenged to account for longer-term risks and liabilities or for systemic risks, as has been demonstrated in the financial crisis that began in 2007 (Clements-Hunt, 2012; Ritter 2004).

Recent surveys of investors’ perceptions and incentives for investments in low-income countries and emerging markets have revealed the following top catalysts—market size or access, human resources and domestic institutions, banking services, and political and economic forecasts (WEF, 2012; IIGCC, 2010; Bhinda and Martin, 2009). Perceived risks do not include the likelihood of loss owing to disasters but rather electricity supply constraints, corruption, interest rates, inflation and tax-related issues (Bhinda and Martin, 2009; UNCTAD, 2011).

The number of investors who explicitly consider how investments produce disaster risks remains unknown, particularly in the case of large hedge funds, government bonds and commodities (IIGCC, 2010). And the business case for risk-neutral investment is often undermined by uncertainties about public policy response (e.g. the price of carbon; land-use and zoning regulations; insurance legislation) and even, despite amassed evidence to the contrary

(IPCC, 2012), by a “lack of confidence in the materiality of climate change” (Ibid.: p.29).

12.2 Hidden risks in the institutional investment value chain

Investors and their fund managers are far removed from the consequences of the investment decisions they take, all but erasing effective accountability. In addition, the increasing complexity of investment products and trading systems has resulted in an opaque system that creates hidden risks, including disaster risk.

The institutional investment value chain includes institutional investors such as pension funds, mutual funds, sovereign wealth funds, hedge funds, insurance funds and private equity; and intermediaries, such as investment banks, asset managers and investment consultants (Cambridge Programme for Sustainable Leadership, 2011a).

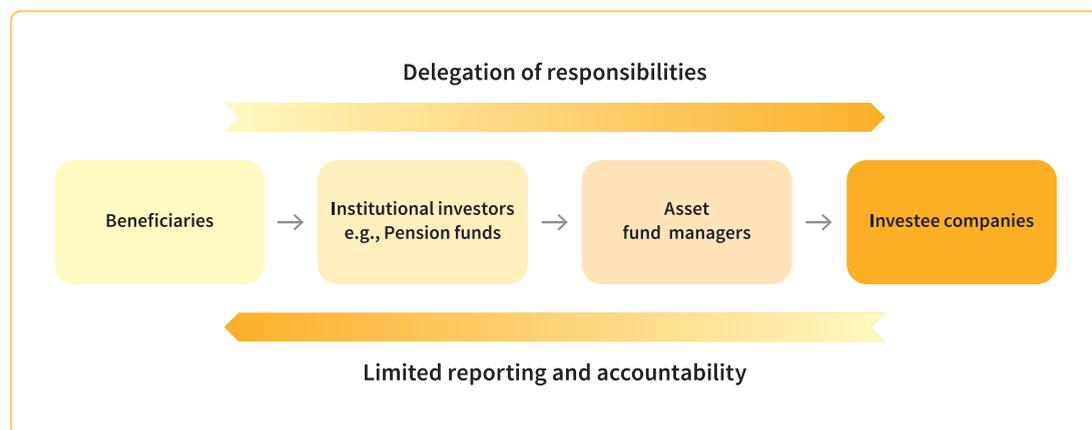
Institutional investors manage assets worth more than US\$80 trillion globally (Ibid.) on behalf of hundreds of millions of beneficiaries such as employees, in the case of pension funds; national citizens, in the case of sovereign wealth funds; premium holders, in the case of insurance funds; and rich in-

dividuals, in the case of foundation-based or high net worth wealth managers (Clements-Hunt, 2012). Figure 12.1 highlights how this value chain delegates responsibility for investment decision-making through a diverse ecosystem of intermediaries with only limited mechanisms for reporting and accountability back to beneficiaries or first investors.

Although intermediaries ultimately have a fiduciary responsibility vis-à-vis original investors (beneficiaries), their primary role is to identify investment opportunities that benefit from a certain level of risk and return. These investments are made across a range of financial instruments, including the trading of stocks and bonds. In particular, trading activity in so-called over-the-counter (OTC) markets significantly outweighs turnover on closely regulated and more transparent public stock markets (Clements-Hunt, 2012).

Asset managers rarely consider disaster risk when making investments. The increasing distance between these managers and beneficiaries means that the latter are increasingly disconnected from how their investment portfolios are being managed, including how much is at risk from disasters. And because the financial market has become increasingly disjointed from the real economy, it generates a further disconnection between asset managers and how the invested money is ultimately used.

Figure 12.1 The institutional investment value chain (simplified)



(Source: UNISDR, adapted from Clements-Hunt, 2012)



Through TIAA-CREF, the leading US financial services company and the main provider of retirement services for US academic and research sectors, a number of pension funds, including from Sweden and Canada, have begun to invest heavily into farmland development across the globe¹. Direct investment into agricultural production on commercial farms in South America and Africa produces high returns. As Chapter 11 in this report highlighted, these investments may not only internalise risks to the business, but also by extension to the investor. They may also externalise risks, for example, to displaced smallholder farmers and pastoralists or through the overexploitation of land and water resources.

Another big institutional investor, TLG Capital, announced in October 2012 its investment in an agricultural fund—EmVest—which manages more than 10,000 hectares of land across sub-Saharan Africa. TLG and EmVest have invested about US\$65 million across the region and are expecting to expandⁱⁱ.

Recently, however, TIAA-CREF joined a number of European institutional investors to launch the Farmland Principles—a commitment to not invest in deals with high environmental or social costs or rights violations (Grain, 2012), suggesting that social demand—expressed in the United States of America and Europe through campaigns against investment strategies—can create disincentives.

(Source: UNISDR)

As the volume of financial capital has ballooned, so have the hidden risks—as the financial crisis that began in 2007 manifested. The increasing sophistication, complexity and opaqueness of financial instruments means that securities and bonds for businesses with high levels of disaster risk are bought and sold without considering how these risks may affect asset values (Clements-Hunt, 2012).

Even where risks are recognized and their impact on a particular asset is considered, willingness to invest in the asset can prevail because part of the risk tends to be transferred to the public sector or to other sectors and countries, and thus becomes shared risk. In other words, the risk is considered an externality for the business and therefore to the investment. For example, global investment in emissions-heavy industrial activity, such as coal mining, continues to increase—in 2010, total investment by banks in coal mining was almost double the amount before the financial crisis (Petherick, 2012).

Much of this investment is hidden within complex and aggregated corporate loans, funded by large funds or banks whose individual investors rarely know what specific activities are being financed

(Ibid.). Beneficiaries in high-income countries with well-established pension funds may unknowingly be benefiting through transferring disaster risk to countries most at risk or, as the example in Box 12.1 shows, by investing in agricultural practices that increase drought risk.

12.3 Eyes wide shut: consistently discounting disaster risk

Economic growth projections and business forecasts at different levels do not account for disaster risks. The implications of disasters on a country's fiscal policy, infrastructure and utilities, and overall enabling business environment are not understood with potentially serious consequences for business investment decisions.

The global crisis that began in 2007 demonstrated that investment decisions that are rational from an individual perspective can generate correlated and systemic risks to the financial system as a whole (Castells et al., 2012). Because investment decisions tend to be based on broadly similar risk models, analyses and forecasts, markets tend to become increasingly correlated and concatenated and hence

the risk increasingly systemic. By mid-2009, global wealth valued at US\$28.8 trillion, captured in equity and real estate values, had been lost in the resulting meltdown (McKinsey Global Institute, 2009).

In the same way, and as the Thailand floods epitomised, individual business investment decisions in hazard-exposed areas can, over time, generate systemic global disaster risks. The preceding years of profit-oriented investment may have resulted in 2011 as the year with the largest disaster-related economic and insurance losses ever (Orie and Stahel, 2012; Ferris and Petz, 2012; Worldwatch Institute, 2012). Investors seem to underestimate or are blind to systemic risk, whether associated with

sub-prime mortgages or hazard-exposed industrial estates (White and Fan, 2006).

Information on the economic risks associated with disasters, climate change or water scarcity is readily available. In 2002, for example, a group of financial institutions predicted that economic losses associated with disasters and climate change would amount to US\$150 billion per year (UNEP FI, 2002). This figure was surpassed just three years later, when Hurricane Katrina hit the US coast in 2005. In 2007, a revised scenario was developed that predicted potential losses owing to climate change of US\$1 trillion per year by 2040 (UNEP FI, 2007).

Box 12.2 No more forecasting blind spots—applying future risk lenses

The Economist Intelligence Unit (EIU), one of the world's leading institutes for economic, political and social analysis, provides, among other information services, economic forecasts, risk and country briefings to businesses and public sector actors alike. These briefings and underlying data are widely used and globally referenced, and thus have a substantial level of influence on the public understanding of future risks and economic projections. These country and sector forecasts do not include risks associated with natural hazards, as the methodology of the EIU explicitly excludes assessments of future hazard and risk.

For example, the 2012 country report of Indonesia, one of the world's highly hazard-prone countries, does not address disaster risk at all (EIU, 2012a). The 2012 Kenya country report addresses drought risk more clearly. However, it is not integrated in the economic forecast model. Instead the report describes that policy-making will remain vulnerable to exogenous shocks, which include drought and volatile commodity prices, and continues to warn that droughts would pose downside risks to GDP growth forecasts, calculated at 4.8 percent for 2013 (EIU, 2012b).

However, specific analysis that is tailor-made for individual clients may include disaster risk analysis upon request. Further, in the aftermath of a disaster, regular country reports do refer to these events and their impacts on economic performance. For example, in case of Haiti, which was recently hit by tropical storms, including Hurricane Sandy, and is still in the reconstruction process, the country report addresses disaster risk in several places. Thus, the economic impact of past disasters caused, for example, by agricultural loss or physical capital damage is woven into the economic forecast, but the probability of future disaster risk is not (EIU, 2012c).

Although excluding disaster risk from standard forecasts may seem surprising from a disaster risk manager's point of view, from the perspective of an economic forecaster, it makes good sense. For example, the short time period of forecasts—two years in the case of EIU forecasts—means that including disaster risk probabilities is a tricky exercise.

New developments in probabilistic risk modelling and assessments, however, and increasingly sophisticated concepts of resilient economies and supply chains in the business sector could change this trend and help the emergence of a new generation of economic forecasts. The EIU has recognised the significant impact that disaster events can have on economic and business performance and is therefore considering an integration of relevant indicators for disaster risk into its models (EIU, 2012d). Although in its infancy, this process could greatly enhance the understanding of other dimensions of economic and business resilience than those currently dominating and limiting investment decision-making.



Box 12.3 Forecasting risk—lessons from Thailand?

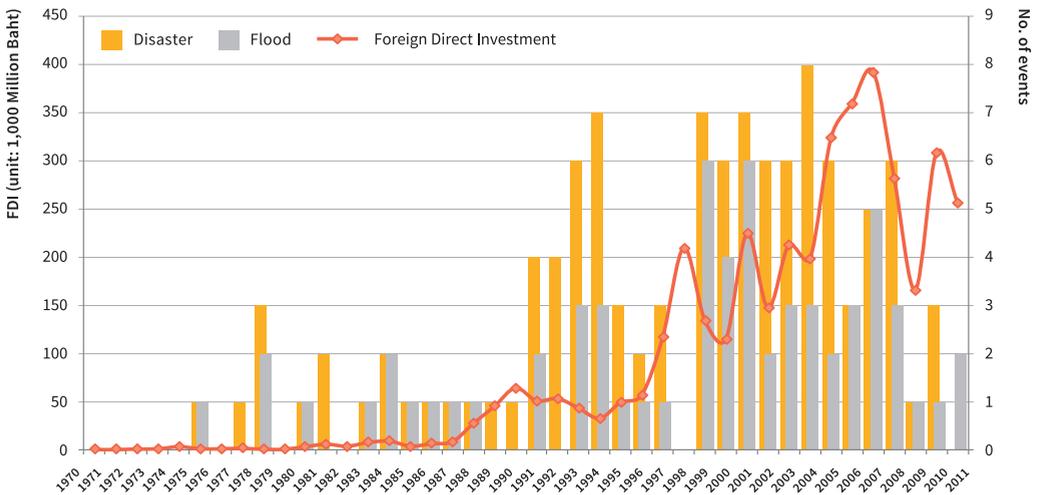
In October 2011, only a few weeks before the country’s economy was engulfed by the Chao Phraya river floods, the EIU, a major source for country risk profiles generated by businesses and investors across the globe, forecast an expansionary fiscal policy of the Thai Government for 2012 and estimated GDP growth of 3.8 percent in 2011 to 4.8 percent in 2012 (EIU, 2011a).

After the floods shut down more than 14,000 businesses nationwide, this estimate of real GDP growth was revised downwards to 2.5 percent in November and to 1.2 percent in December (EIU, 2011b & 2011c; Atradius, 2011). Political and related policy forecasts had to be revised also owing to expected repercussions from the floods.

A few months earlier, an investor country briefing by a major bank, based heavily on EIU data, did note that the export-heavy Thai economy was “very vulnerable to external demand shocks” (Rabobank, 2011), and had been affected by the Japan disaster in March 2011. Yet its growth projections for Thailand in 2011 remained unchanged.

An empirical study of the relationship between foreign direct investment (FDI) flows and the occurrence of disasters over the last 40 years in Thailand shows that investment has not been influenced by disaster occurrence in general, and floods in particular (Figure 12.2; Thampanishvong, 2012).

Figure 12.2 FDI and disaster occurrence in Thailand from 1970 to 2011



(Source: Thampanishvong, 2012, based on data from Bank of Thailand and EM-DAT)

However, other studies covering 94 countries over a 20-year period have found a negative and significant relationship between disasters and FDI (Escaleras and Register, 2011).

In Thailand’s 2012 economic forecast briefing, flood risk is mentioned, suggesting that the “perfect storm of factors that combined to produce the floods in 2011” were not in place for 2012 (EIU, 2012e). Yet, it cautions that the risk of renewed flooding had not disappeared and notes that investor confidence had not been restored, exacerbated by intra-government conflict over water management and flood drainage between the city of Bangkok and surrounding areas.

(Source: UNISDR)

Public domain global disaster risk information developed for the GAR has been available since 2009ⁱⁱⁱ and similar information published since 2004 (UNDP, 2004; World Bank, 2005). Commercial risk models are also produced for the insurance industry.

But this information is not generally included in business surveys, economic forecasts and country briefings that guide investors and credit ratings. Even in high-risk countries, disaster risk is rarely mentioned, contrary to quality and availability of labour, access to export markets, political and economic stability and incentives, such as tax breaks. Forecasters consider disaster risk too uncertain and volatile, particularly over the relatively short periods that are used for forecasting, to allow the integration of expected impacts into economic growth projections (see Box 12.2).

Global reference reports such as the International Monetary Fund's World Economic Outlook and the Organization for Economic Co-operation and Development's Economic Outlook do not include disaster risk into their economic modelling, possibly owing to the difficulty of estimating disaster risk per se and lack of consensus on the possible impact of disasters on economies.

Even in a weather-sensitive sector such as agribusiness, forecasts in 2011 and 2012 did not consider disaster risk-related factors in their projections. Thus, the risk of a global food spike posed by the 2012 drought in North America was not identified (see Chapter 10).

In these projections, other risk factors and uncertainties, such as fluctuating crude oil prices or exchange rates, are considered but disaster risk is not. Despite recent weather-related impacts on global commodity markets, these projections claim to provide "a baseline for further analysis of alternative economic or policy assumptions" and to analyse the conditions for "increasing agricultural productivity in a sustainable manner" (Ibid.).

Similarly, as Box 12.3 shows, even while water levels were rising in Thailand in October 2011, none of the major forecasting agencies and analysts warned of potential impacts on economic activity. This was certainly not because information on flood risk was not publicly available,^{iv} but more likely because of a low level of awareness of disaster risk by economic forecasters and risk analysts and the difficulties of incorporating disaster risk-related metrics in their work.

12.4 Winds of change

Recent efforts of investor groups concerned with climate change have begun to show results with 10 percent of global investment managers now integrating environmental, social and governance (ESG) issues into their investment process (IIGCC, 2010).

Increasingly, companies, investors and governments are recognizing that more transparency in business practices, the spread of investment portfolios and patterns of natural resources consumption may create opportunities for greater efficiency and effectiveness in business operations (CDP, 2011). Correspondingly, a growing number of resources are available today for companies and investors to assess and disclose physical risks, particularly climate-related risks (Calvert, Ceres, and Oxfam, 2012).

Regulators are also requiring that businesses disclose hidden risks. For example, the Climate Change Act in the United Kingdom in 2008 led to a requirement that companies in the energy, water and transport sectors publish a report on the risks posed by the impact of climate change. And the Canadian Securities Administration (CSA) has issued similar guidance (Calvert, Ceres and Oxfam, 2012). Although currently these requirements only refer to climate related risks, in the future they could also address other disaster risks, for exam-

ple, associated with earthquakes, tsunamis, volcanic eruptions and landslides.

A changing approach to investment is also taking root in some large institutional investors. For example, the Government Employees Pension Fund of South Africa has recognized that the information available and used in each stage of the investment chain is asymmetric. This means that providers of investment opportunity know more than investors and control the information of those whose money they manage (IISD et al., 2012). In addition, regulation is encouraging long-term investors, such as large pension funds, to invest in securities with low risk to ensure liquidity and stability of their portfolios. The South African pension fund is seeking to diversify its portfolio by investing in longer-term development projects across the country (Ibid.).

One of the largest sovereign wealth funds, the Norwegian Pension Fund Global, is another example. It passively invests in more than 8,000 companies worldwide and yet has established standards for environmental, social and governance issues to be taken into account in all of these. However, to quantify the benefits to these initiatives and to estimate the cost of externalized risks is not a trivial exercise, particularly when it comes to valuing natural capital. As a result, performance criteria for investment contracts and loans that take natural capital – and disaster risk considerations – into account have yet to be identified (Cambridge Programme for Sustainable Leadership 2011b). Recent initiatives are now addressing this gap (TEEB, 2010) though there is still a need to link the real costs of externalities such as environmental pollution, the destruction of natural capital or the cost of increased disaster risk.

While these changes still involve a minute proportion of the total value of global financial assets, they do indicate a change in direction. These changing values are now guiding both regulators concerned with reducing systemic risks as well as investors who want to protect their investments against such risks and at the same time avoid making invest-

ments that generate environmental and social costs.

The threat of falling equity prices or negative analyst ratings for businesses that do not manage or disclose their disaster risks may in time become a powerful incentive that rewards those businesses and governments, which more effectively manage those risks.

Notes

- i https://www.tiaa-cref.org/public/about/press/about_us/releases/articles/pressrelease422.html and <http://www.top1000funds.com/news/2011/06/08/swedish-fund-goes-farming-for-diversification/>.
- ii http://www.emvest.com/latest_news_media.aspx.
- iii <http://www.preventionweb.net/english/maps/?pid:34&pif:3>.
- iv A flood risk model including Thailand has been available since 2009. <http://www.preventionweb.net/english/hyogo/gar/2011/en/what/rdp.html>.