

Economic Discussion Paper

An assessment of the World Bank MIGA

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1 Introduction

Foreign direct investment flows to developing countries have been growing fast in the past years. At \$320bn in 2005, FDI flows to developing countries almost doubled compared to 2003. FDI-promoting agencies such as the World Bank's Multilateral Investment Guarantee Agency (MIGA) try to direct these flows to areas that help to foster economic growth and reduce poverty. The following essay aims to outline and assess the role and activities of MIGA.

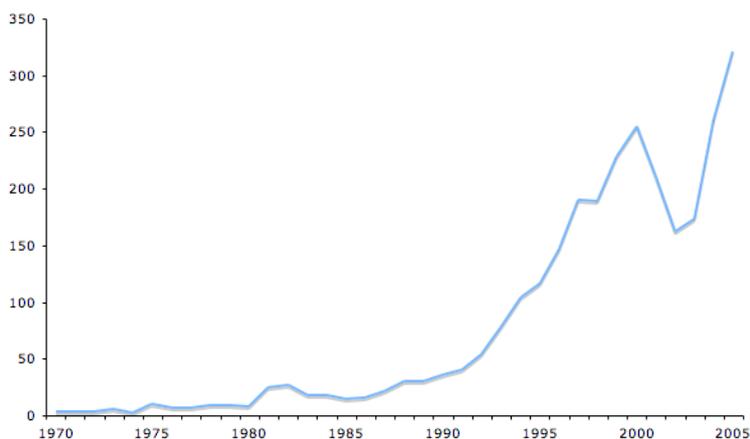


Figure 1: FDI to Developing Countries (in billion dollars), from [24]

2 MIGA's role and activities

2.1 Outline of MIGA's role in international finance

2.1.1 FDI promotion

In 1988, MIGA started operating as part of the World Bank, with the objective to promote FDI into developing countries by insuring against non-commercial risks. Since then, MIGA claims to have issued *nearly 850 guarantees worth more than \$16 billion for projects in 92 developing countries*¹ Overall, there are four types of risks² that are covered by MIGA:

- Currency Inconvertibility
- Expropriation
- Political violence
- Breach of Contract

Why insuring against these risks is important becomes clear if we look at the determinants of FDI. Profit-maximising MNCs³ try to increase revenues or decrease costs, and as Lemi and Asefa (2001, [12]) put it *foreign investors divide*

¹from <http://www.miga.org/sitelevel2/level2.cfm?id=1069>

²Formulation taken from [5], differs from original formulation in MIGA's convention [14]

³Multinational Corporations

their production capacity across borders according to the distributions and correlations of exchange rate and demand shocks, which can be modelled in a simple profit function (Goldberg and Kolstad 1994 [10]):

$$\Pi(q_d, q_f, e, \delta) = e(p(q) + \delta)q - q_d - eq_f \quad (1)$$

where $p(q)$ is total demand for the firm's product in the host country, q_d and q_f home and foreign capacity costs, δ a demand shock and e is the exchange rate. Hence, any factor that affects either revenues (horizontal FDI) or costs (vertical FDI) is going to affect the MNC's decision to invest.

- Size of host market
- Distance/ Transport costs
- Clustering effects (client- or raw-material companies nearby)
- Factor cost (labour, capital)
- **Business/ startup climate**
- **Trade barriers**
- **Fiscal incentives**
- Exchange rate volatility⁴
- **Political stability (war, property rights)**

Highlighted in bold are the factors that MIGA has the most influence on, either directly or indirectly. Hence, at the **micro-level**, MIGA's role can be interpreted as a risk-reducer that aims at maximising the expected profit of MNCs where the wealth of developing countries is maximised⁵.

However, MIGA's role can also be analysed against a **finance background**. As can be seen in the example below, companies do have very specific measures for political risk such as expropriation or political violence.

⁴Loss from currency devaluation is not covered by MIGA. Furthermore, exchange rate does not have a very significant impact on FDI, as empirical studies suggest, e.g. Wang and Ji (2007) for the case of China [25]

⁵Wealth effects will be discussed in section 3

A retail investment project in Pakistan, from [4]

In 2000, a client asked PHI Consultants to estimate the economic and operating risk premium in US dollars for an investment in Pakistan. A common method is a three-step CAPM calculation involving an international index of the country's creditworthiness⁶; **Step 1**:

$$\bar{R}_i = r_f + \beta_i(\bar{R}_c - r_f)$$

where r_f is the riskless rate of interest on the dollar, β_i the systematic variation of the unlevered project's returns with respect to the country's performance, R_i the expected return on an unlevered project in dollars. (see [4]). This first step captures the project's risk compared to the country's systematic risk. In **Step 2**, country-specific risk compared to the rest of the world is taken into account:

$$\bar{R}_c = r_f + \beta_c(\bar{R}_w - r_f)$$

where R_c is the country's expected return in dollars (see [4]), β_c the systematic variation of the country's performance with respect to the rest of the world, R_w the expected return on the world index. Plugging \bar{R}_c from step 2 into the equation in step 1 yields:

$$\bar{R}_i = r_f + \beta_i\beta_c(\bar{R}_w - r_f)$$

PHI used Pakistan's international index that was based on 20 years of data and estimated a β_c of 1.4. Similar projects that the company had undertaken had a β_i of 1.25, the average return on the market index was 10% and the riskless rate r_f was 5% so that the project's required rate of return was 13.75%.

From this we can see MNCs do not just base their decision to invest on a gut feeling about the political stability, but an actual measure of political risk so that MIGA's role can be interpreted as risk-reducer that shifts the expectation on the Net Present Value of the MNC's project towards a positive number (or at least zero).

At the **macro-level**, there is another way to model the relationship between FDI and political risk: the gravity approach, as first used by Jan Tinbergen (1962), where trade volumes between two countries depend positively on economic mass and negatively on resistance [17], and political risk is added as a significant variable. Moser et al (2006)[17] formulate such a model to analyse Euler Hermes, a German export credit agency covering similar risks as MIGA.

$$\ln(Exports_{c,t}) = c + \alpha \ln(gdp_{c,t}) + \beta \ln(dist_c) + \gamma \ln(pop_{c,t}) + \delta \ln(guarantees_{c,t}) + \theta \ln(risk_{c,t}) + \eta \ln(other_{c,t}) + \mu_c + \mu_t + \epsilon_{c,t}$$

where $gdp_{c,t}$ is the real GDP of country c in year t , $dist_c$ the distance between Germany and the target country c , $pop_{c,t}$ the population of country c in t , $guarantees_{c,t}$ real newly granted guarantees for country c in year t , $risk_{c,t}$ political risk index in country c in t and $other_{c,t}$ other control variables.

⁶see Chapter 12 of [4]

Running a number of regressions, Moser et al (2006) [17] conclude that *guarantees led to a more than proportionate increase in exports [...] for the subgroup of non-industrial countries*[17], and that political risk has a detrimental effect on exports⁷. In particular developing countries show a negative uncertainty-FDI relationship, as several empirical studies suggest (Dixit and Pindyck, 1994; Episcopos, 1995; Price, 1995 and Campa, 1993).

In addition, hysteresis and sunk cost effects delay FDI flows to these countries even further (Dixit, 1989, 1992), so that developing countries appear to be in a kind of vicious circle, regarding FDI flows:

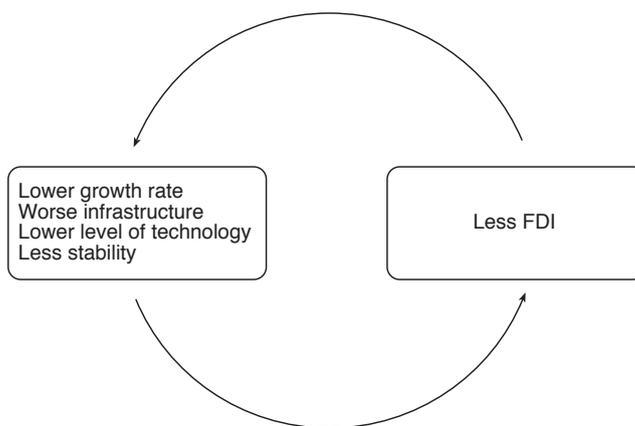


Figure 2: Vicious circle for developing countries

All in all, it can be said that theory and data imply a definite need for political risk insurance for developing countries, if the target is to attract more FDI to these areas and break circles like the one above.

The negative relationship between political risk and FDI is a well-known fact but while the increasingly popular private insurance sector could not offer very attractive rates and coverage periods, bilateral investment treaties (BITs) have shown very little effect on FDI (Elkins et al, 2004 [9]; Tobin and Rose-Ackerman, 2005 [20]).

2.1.2 Growth-effects of MIGA-FDI

However, MIGA's aim is not just to promote any kind of FDI, but FDI that supports economic growth and reduces poverty. If growth is the change in output over time, FDI affects growth through any component of output (consumption, investment, government spending, net exports), and as each of these components are related to each other, simply increasing one (e.g. investment) will not always yield desired results. According to Todaro and Smith (2006), desired results are achieved when any of the four gaps are filled: **savings-investment gaps**, **trade gaps**, **tax gaps** and **technology gaps**. Evidence on the FDI-growth

⁷After controlling for the Knaepen Pacakage (OECD), see [17]

relationship is mixed, though the majority of the empirical studies emphasise a positive relationship (Busse and Groizard 2005 for a sample of 89 countries [3]; Blomstrom 1986 and Kokko 1994 for Mexico [2]; Sjöholm 1999 Indonesia [22]).

In sum, theory and data imply that MIGA has to be careful in the selection and timing of FDI, paying attention to the different economic dependencies in the country, if the aim is to foster economic growth⁸. The next section will elaborate on whether or not MIGA does what theory and the data suggest.

2.2 Outline of MIGA's activities in FDI promotion

Funding MIGA launched with capital of US\$ 1 billion; in 1999 the Board of Governors approved doublings this amount to \$2 billion, part of which is a grant from the World Bank and the rest is raised through subscription fees and profits from insurance and technical assistance. The more subscriptions a country has, the higher the voting power.

Selection At first, applicants submit a confidential preliminary application (online) which gets processed within three business days to become definitive (or not), after that it takes three-four months to issue a guarantee (or not). Decisions are made on the basis of MIGA's guidelines on the environment, labor conditions, corruption, and also if the project is financially viable.

Guarantees MIGA guarantees usually cover a period of up to 15 years, sometimes 20. The minimum length is 3 years; better rates and longer coverage than private sector.

Technical Assistance MIGA provides knowledge, tools and operational assistance to developing countries to promote FDI (Capacity Building, Information Dissemination, Investment Facilitation).

Evaluation Established in 2002, MIGA's Independent Evaluation Group (IEG-MIGA) evaluates MIGA's developmental and operational effectiveness. Independent from MIGA in the operational and decision-making process, it reports to the Committee on Development Effectiveness (CODE) of MIGA's Board of Directors through the Director-General, Evaluation (DGE).

In summary, MIGA does provide insurance against political risk to promote FDI in developing countries and there also seems to be a careful selection process that weighs internal and external costs against the desired growth effects, which finds general support in the data of figure 3 (most guarantees in developing countries; mostly power, telecom and transportation). However, a closer look at each project in detail would allow for a more definite conclusion. A more detailed assessment will be given in the next section.

⁸Higher output does not reduce poverty or improve people's lives automatically. Those are MIGA's targets that are subject to a just tax-system and fiscal policy, which will be neglected due to the limited scope of this essay.

Region	Electric, Gas & Sanitary Services	Power	Sewerage Systems	Telecom	Transportation	Water Supply	Total
Asia and the Pacific		540		217	87	117	961
Europe and Central Asia		654		119		108	881
Latin America and the Caribbean	20	1,621		238	286		2,165
Middle East and North Africa	6		4	75			85
Sub-Saharan Africa	16	252		420	20		709
Total	42	3,067	4	1,069	393	225	4,801

Figure 3: Guarantees issued by MIGA in FY06, by sector

3 Assessment of MIGA's role and activities

An ideal assessment of MIGA's role and activities would be to look at each project it has undertaken and check whether the FDI promotion has been successful, in the way that more wealth-enhancing FDI was attracted to developing countries, without creating too high costs and externalities. However, the limited scope of this essay reduces the assessment to the main findings. The complexity of this matter can be inferred from several studies and articles that range from requests to shut down MIGA (Meltzer, 2000)[13] and Welch (2001)[26] to more moderate recommendations by the Independent Evaluation Group (IEG-MIGA).

According to the latest report by the IEG, MIGA should:

1. Revise its supervision on Category B projects⁹ to ensure compliance with its environmental and social safeguard policies.
2. Develop rules of engagement for projects involving concessions and similar agreements.
3. Improve their ability of capturing costs associated with underwriting, processing, and monitoring individual guarantees.
4. Review the strategy of its dissemination services.
5. Engage in more robust performance monitoring for information dissemination.

If those are the recommendations of an institution that is close to MIGA (even if independent), then one can imagine that other third parties might come to more serious conclusions if they look at a bigger sample than just 21 randomly selected projects.

Further assessment could be made by checking the published complains made to the Compliance Advisor/Ombudsman. As an example, the people involved in the Tanzania- Bulyanhulu Gold Mine Project complained that *MIGA failed to carry out a thorough and competent due diligence investigation, and properly address issues over consultation*¹⁰.

⁹Category B projects carry less risk in terms of environmental externalities (most of them are reversible) than category A projects.

¹⁰from <http://www.cao-ombudsman.org/html-english/complaintBulyanhulu.htm>

4 Conclusion

The aim of this essay was to outline and assess the role and activities of the World Bank MIGA. Section 2.1 gives an outline of how MIGA's targets fit into economic theory; section 2.2 compares this theoretical role with MIGA's actual activities, leading to an assessment of MIGA's role and activities. Even though the private insurance sector has grown significantly in the past, MIGA still plugs the gap in the market that is left by private insurance companies (The Berne Union, Sovereign Risk Insurance) as it has a crucial comparative advantage in its connection with governments (strong track record, flexible product design, fast processing only 3 claims out of 850 guarantees).

The fact that the IEG had been established shortly after shut-down demands (Meltzer, 2000[13]; Welch 2001[26]), and that the MIGA has a very experienced Executive Vice President in Yukiko Omura, allows for a healthy optimism, despite of the recent threat to the World Bank's reputation due to Paul Wolfowitz.

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