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Policy instruments to improve MSMEs access to external financing in developing countries: A survey

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Acronyms

ADB	Asian Development Bank
AFD	Agence Française de Développement
AfDB	African Development Bank
APD	Aide Publique au Développement
BIO	Belgian Investment Company for Developing Countries
BTC /CTB	Coopération Technique Belge (Belgian Development Agency)
CSR	Corporate social responsibility
DAC	Development Assistance Committee
DEG	Deutsche Investitions- und Entwicklungsgesellschaft.
FMO	Nederlandse Financierings –Maatschappij voor Ontwikkelingslanden
DFI	Development finance institution
DGD	Directorate General Development Cooperation
Eurodad	European Network on Debt and Development
FI	Financial Institution
HIPC	Highly Indebted Poor Countries
IADB	Inter-American Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund
KfW	KfW Kreditanstalt für Wiederaufbau (German Development Bank)
MFI	Micro Finance Institution
(M)SMEs	(Micro,) Small and Medium sized Enterprises
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
OOF	Other Official Flows
PROPARCO	Promotion et Participation pour la Coopération économique (French DFI)
PSS	Private Sector Support
TA	Technical Assistance

Introduction

Micro, small and medium-sized enterprises (MSMEs) are often praised for their important role as the drivers of economic activity (e.g., Ayyagari *et al.*, 2011, Neumark *et al.*, 2011, Page and Söderbom, 2012). For instance, Ayyagari *et al.* (2011) report that SMEs (fewer than 250 employees) operating in the formal sector account for 78%[1] of the employment in low income countries (LICs) and 66% in high income countries (HICs). When micro and informal firms are added to the discussion, the authors found a much higher labor share for these firms in developing countries (90%).

However, MSMEs often face external financing constraints that undermine their growth and hence potentially limit their welfare impacts (e.g., Ayyagari *et al.*, 2008, Beck and Demirgüç-Kunt, 2009 and Beck *et al.*, 2006). In fact, they rely relatively more on internal funds to finance their activities whereas larger firms can finance relatively more of their business from external sources.

As such, public intervention has been used to alleviate the financing constraints facing MSMEs in both advanced and poor countries. In the development-cooperation context, financial-support and capacity-building policies as regards MSMEs have been designed and implemented mainly through development finance institutions' (DFIs) and non-governmental organizations (NGOs). However, these interventions raise a number of issues, one main concern being whether the focus on MSMEs is more welfare enhancing than when policy support is directed to all of the firms operating in the economy. On a related point, critics often question the extent to which these policies are cost-effective and are in line with development goals.

This paper has two broad objectives. First, we present the main salient factors that characterize important aspects of MSME access to external financing and review the theories underlying their external financing problems. We distinguish both demand and supply factors underlying external financing constraints. Second, we discuss policy instruments that have been used by development cooperation actors aiming to improve MSME access to external financing. Our particular interest is to document how well the Belgium Development Cooperation support of MSMEs compares to that provided by four other European countries: France, Germany, The Netherlands, and Sweden.

The paper is structured as follows. Section 1 contains the theoretical background for our analysis. We begin by defining a number of concepts of firms' financial needs and options. We then review various theories that have been formulated to explain access to external financing. We distinguish both demand (firms) and supply (lenders) arguments underlying external financing constraints. Section 2 presents stylized facts on firms' access to external financing with a particular focus on MSMEs. Section 3 focuses on the rationale of public intervention in supporting SMEs with a brief description of the main financial instruments used for this purpose. Section 4 illustrates how Belgium compares to similar countries in terms of private sector support in developing countries. Section 5 discusses the welfare impacts of MSMEs support, and Section 6 provides concluding remarks and policy considerations.

1. Background: External financing, market imperfections and firm size

1.1. Financing needs and options

1.1.1. The main financing needs

Investments of firms are financed as two types of capital: fixed capital and working capital. Fixed capital refers to durable assets, tangible (e.g., machinery, land, and buildings) or intangible (e.g., software, R&D, and intellectual property such as patents) of which the use is of a permanent nature. It is essential

[1] 50% if the cut-off for defining SMEs is set at 100 employees.

for the firm's productive capacity particularly at the early stage. This may explain why the quality and the quantity of fixed capital is critical for access to external financing. This raises the question about how firms finance the start-up fixed capital in the first place. We will return to this issue later.

The working capital represents the assets that allow firms to meet short-term financial obligations and operational costs. It includes current assets on the balance sheet such as cash, accounts receivable, inventories and other expenditures related to its operation. Firms make use of working capital for several purposes including the financing of unexpected expenditures, intermediate inputs and wage bills before the production and the receipt of sales revenue.[2]

In addition to the difference in maturity structure between the two categories of capital, fixed capital is generally much greater than working capital. As a result, firms typically rely more on longer-term financing for fixed capital. Investment in fixed capital is more irreversible and thus more risky for both the firm and the lender.

1.1.2. Main financing options

Firms have two main financing options: debt financing and equity financing. A debt contract allows firms to obtain funding against the promise of timely fixed payments (of the principal and interest) to the lender.[3] Equity financing (internally generated or externally raised) refers to financing contracts where investors provide cash or other assets to a firm in exchange of a share on its present and all future profits. The sources of equity finance include a public stock offering, the owner's personal savings, friends and relatives, investors (or angels), venture capital, investment funds, and retained earnings. External financing consists in raising funds from outside the firm, either through new equity or through debt. Internal financing occurs when firms finance themselves through accumulated profits (retrained earnings, the firms' savings).

One key difference between debt financing and equity financing is that equity is a loss-absorbing instrument. As a result, when a firm incurs losses, dividend payments would be impacted while the terms of debt contracts still have to be honored. In the same line of reasoning, should the firm go bankrupt, priority of repayment is legally given to investors in debt instruments. Therefore, from the investor's perspective, equity is more risky than debt. On a related point small firms are more risky because they display a greater probability of bankruptcy (e.g., Berryman, 1982 and 1994), so investors will be less willing to finance them. The capital structure choice (debt versus equity) has been extensively discussed in the literature, especially as regards its relevance for a firm's value and investment decisions. Both types of instruments are used to finance fixed and working capital. However, equity is used more to finance fixed capital at the early stage. Theoretical arguments are the trade-off theory, the Modigliani theory, and the pecking order theory. In a frictionless[4] world, Modigliani and Miller (1958) showed that the market value of a firm (market value of debt + market value of equity) should be independent of its capital structure[5] which implies that the financing sources do not matter for investment decisions. However, the possibility of having debt interest's tax deductibility and some financial distress costs of having high leverage ratios could alter investment decisions. Firms would tend to balance the tax advantages of borrowing (interest tax shield) and the costs of financial distress by increasing their leverage (preferring debt to equity) up to

[2] Working capital may also be used to take advantage of immediate opportunities such as investing or buying assets sold at a discount. See Guerard and Schwartz (2007), p79-80.

[3] Line of credit: firms may borrow up to a limited amount that is pre-set in the contract. This gives firms the flexibility for financing their working capital. The firm may not draw the entire amount of the credit line. The contract requires the firm to repay the principal and the interest. Loan: a simple debt contract based on an agreed interest rate and repayment schedule Trade credit: An agreement to purchase goods or services without an immediate payment of the bill. The payment is delayed to another date.

[4] No tax distortions, no transaction costs or informational issues, perfect competition.

[5] For more details on this term, see Myers (2003) p. 218.

an optimum point. This trade-off theory envisions an optimum capital structure where the gains and the costs of mixing debt and equity fully balance (Kraus and Litzenberger, 1973, Myers and Majluf, 1984). A firm would generally prefer internal over external financing and for the latter, debt to equity: the "pecking order", as termed by Myers and Majluf (1984). Internal funds are the least costly, and therefore first in line. Concerning external funding, potential investors are aware of the managers' information advantage about the actual value of the firm (relative to its book value) and its expected profits. So they would tend to issue stocks when stocks (equity) are overvalued relative to the book value and bonds (debt) if stocks are undervalued. Managers refrain from sending such a "bad signal" (on the soundness of their firm) to investors if they are issuing stocks and hence prefer issuing debt. They also avoid the floatation costs incurred when stocks are issued.

1.2 Demand and supply determinants of external finance

One robust empirical fact is that micro and small enterprises (MSEs) rely more on their own funds to finance their activities than do larger firms, which resort more than do smaller firms to external financing (e.g., Beck & Demirgüç-Kunt, 2009 and Beck et al., 2006)). Appropriate policies to improve the access of MSEs to external financing require an understanding of the mechanisms underlying this phenomenon. This section reviews two broad theoretical arguments for the justification of this finding: the first is based on factors related to the supply of external funds while the second based more on factors affecting the demand of financing by firms. In addition, we discuss the role of the business environment, which can affect both the demand and the supply factors.

1.2.1 Supply side: information asymmetry issues

In this section we discuss three factors that constrain most MSMEs' access to external finance: the information asymmetry; the credit market structure; and the legal and judicial framework.

a. Information asymmetry and access to finance

One element that restrains banks and MFIs from financing MSMEs is the problem of information asymmetry. The terminology "information asymmetry" in financial contracts refers to borrowers having more and better information than do lenders about the quality and riskiness of their projects as well as about their management skills and their intrinsic incentives for repayment. Consequently, two types of inefficacies have been observed in financial markets: adverse selection and the moral hazard.

Adverse selection occurs when lenders, trying to mitigate the issue of asymmetric information take actions that, unintentionally, lead them to select bad quality projects (more risky and higher probability of default). Most of the ones of good quality are self-excluded from financing (Akerlof, 1970). Ideally, if lenders can perfectly identify good and bad borrowers, they will offer two different contracts each tailored to the specific riskiness of each category of borrowers. In particular, they will charge bad borrowers a higher interest rate and good borrowers a lower interest rate. If lenders cannot distinguish between bad and good applicants for funding, they may offer a single financial contract with an interest rate that will be the average of the two different interest rates that would have been charged when they could distinguish the two categories of borrowers. Good borrowers facing a relatively higher interest rate may refuse the contract given their relatively lower risk level whereas their bad counterparts will likely accept such a contract. As a result, adverse selection generates a number of inefficiencies. For instance, it reduces the size of the credit market thereby hindering desirable, mutually and socially beneficial projects to be financed. In the same way, the bad borrowers that end up obtaining access to financing will likely waste the resources and not be able to make timely repayments. In particular, they may shift to riskier projects than the ones for which they have obtained financing. They may also behave carelessly in implementing

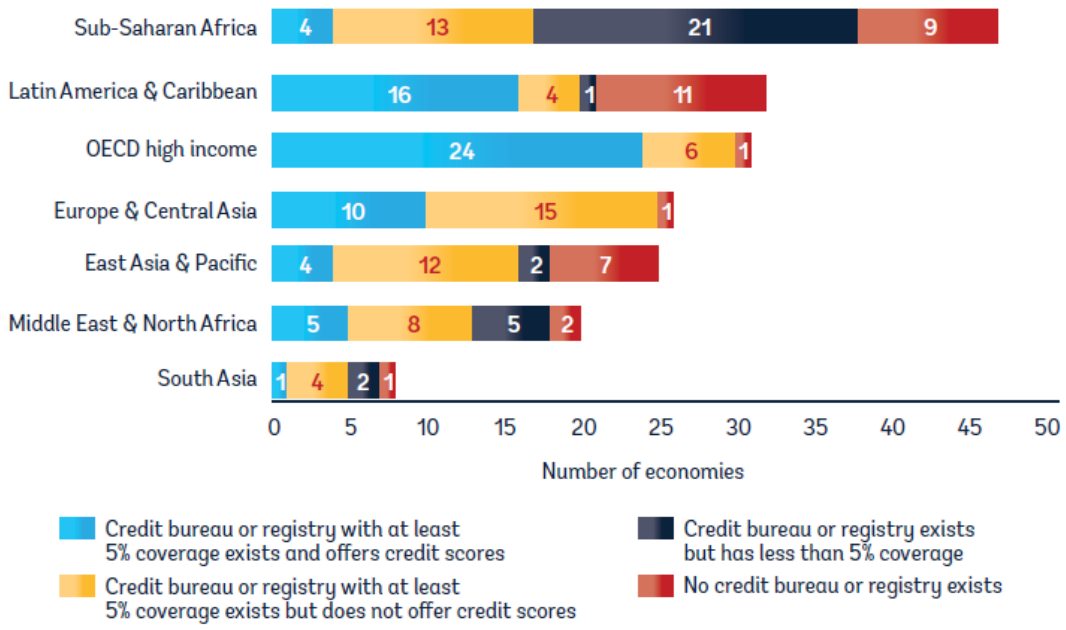
the projects. This deviating behavior after the credit contract has been signed is known as the moral hazard.

Information asymmetry problems are more pronounced for micro and small firms because they display very opaque information (no external audit, unbalanced or non-existence of clear financial statements for most), which makes the supply side warier of signing a loan contract with them.

A number of coping strategies have been developed by borrowers and lenders to mitigate these inefficiencies. For instance, lenders' strategies to minimize the selection of bad borrowers include: credit rationing (Stiglitz and Weiss, 1981), screening mechanisms (Milde and Riley, 1988, Voordeckers & Steijvers, 2006), collateral requirements, monitoring and incentives compatible debt contracts (Holmström and Tirole, 1997). In the same way good borrowers can signal their low degree of riskiness by providing the information needed to enable lenders to offer appropriate debt contracts to their category of entrepreneur. However, for signals to work, they should be accurate, sufficiently cheap to produce, and more valuable for good quality borrowers than for the poorer-quality ones.

One way to minimize these information costs is through the centralization of information at public credit registries and with private credit bureaus. In particular, the presence of private credit bureaus has been found to reduce significantly the information asymmetry problems (Triki and Gajigo, 2013). However, this institution is absent in many countries, particularly in developing countries. For instance, the data presented in Figure 1 show that credit bureaus are markedly lacking in Sub-Saharan Africa and South Asia. In particular, there is no coverage by private credit bureaus in most DGD's partner's countries (e.g. Benin, Chad, Cameroon, Burundi, and The Democratic Republic of Congo). Moreover, information coverage is poor in a number of these countries (credit registries have only 0.2% information coverage in The Democratic Republic of Congo and 10% for Benin). The supply of credit in such an environment is thus greatly exposed to information asymmetry issues, and MSMEs are likely to be excluded from external financing. Given the important role that private credit bureaus play in access to external financing for all types of firms, donors should help their partner countries establish these institutions.

Figure 1: *Information coverage (2014)*



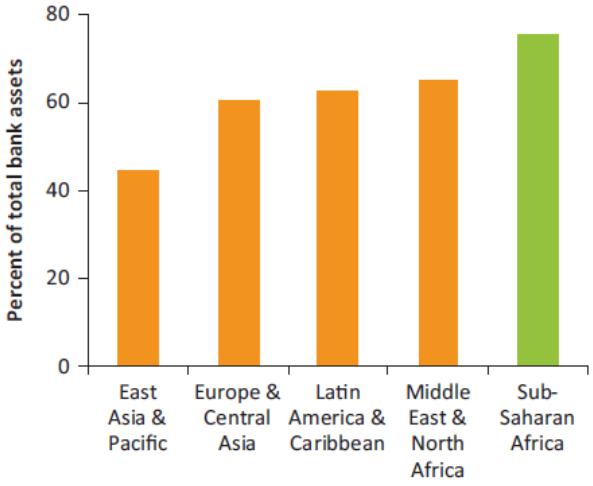
Notes: *Credit scores are based on credit bureau or registry data. Coverage is the number of individuals and firms covered as a percentage of adult population.* ***Source:*** *Doing Business 2015, P.74.*

b. Credit market structure

Bank concentration may contribute to strengthening MSMEs' external financing problems but there are debates about this relationship. We distinguish two theories: the market power hypothesis and the information hypothesis. The market power theory assumes that when concentration is high banks will charge relatively higher interest rates to their customers. As a result, the theory predicts that more concentration would imply more credit constraints (Carbo-Valverde et al., 2009)). The information hypothesis would imply the opposite relationship i.e. more concentration reduces credit constraints because banks can internalize the cost in establishing lending relationships with opaque borrowers, particularly MSMEs (Petersen and Rajan, 1995). Empirical studies find mixed results. For instance, Ryan et al. (2013), Chong et al. (2013); Beck et al. (2004), and Love and Peria (2014) find evidence in support for the market power theory; whereas Petersen and Rajan, (1994, 1995) and Fischer (2000) cannot reject the information hypothesis.

The data reported in Figure 2 indicate that bank concentration is very high in developing countries, particularly in Sub-Saharan Africa where the three largest banks hold more than 70 % of total assets. If the market power hypothesis holds true this figure would imply that, everything else equal, policies aiming to increase competition in the banking sector will facilitate MSMEs' access to external financing in the region.

Figure 2: *The three largest banks assets share (2010)*



Source: *From Mlachila et al (2013), p.14.*

c. Legal and judicial framework for financial intermediaries

The legal and judicial environment as regards contract enforcement, insolvency proceedings and collateral registries inter alia matter for the supply side as well as for firms. In fact, the stakeholders of a funding contract have to be protected from abuse of the dominant position of the other side, which requires enforceable laws to resolve disputes should the contracts be violated. In addition, investors (including private equity and investment funds) and financial intermediaries need to be convinced by firms of the soundness of their activities and their commitment to honor the contract. Collateral might be required in the case of debt financing, and there has to be growth potential if investor or equity funds are to participate in the capitalization of MSMEs. However, these requirements, particularly in the case of loans, might have a deterring effect. For example, in Benin the required collateral was more than three

times (310.3%) the loan amount in 2009.[6] Another important issue that firms and lenders have to deal with is the valuation of collateral and, specifically, a clear legal framework for dealing with movable collateral. The movable assets, as opposed to fixed assets (e.g. land and building) constitute a major portion of the assets of MSMEs. In developing countries, 78% of the businesses' capital stock is in movable assets such as machinery, equipment, crops, inventories or receivables (Alvarez de la Campa, 2011). Given that these kinds of assets are often rejected by lenders as collateral, the legal and regulatory environment should enable them to be evaluated and used as a guarantee.

1.2.2 The demand side: changing needs and characteristics of firms during their life-cycle

At different stages of its life-cycle, a firm displays different operational characteristics and specific financial needs (working capital or fixed capital). As such, firms may display capital structures that are optimum at different points in their life-cycle (e.g., Berger and Udell, 1998). Three stages can be distinguished in a firm's life-cycle: inception (or start-up), growth, and maturity. We shall present a broad analysis of the financial needs and characteristics over the life cycle of the firm (section a) and then summarize the hypothesis that uses demand factors to explain why micro and small enterprises (MSEs) mostly rely on internal funding (section b).

b. Changing characteristics and financing sources during a firm's life-cycle

During the inception stage internal funds are not yet available. Moreover, bank financing is virtually unavailable because of asymmetric information issues (Section 1.2.1) and start-up firms possess few tangible assets that can be used as collateral. As a result, start-up firms derive their main financing from the entrepreneur's personal savings and support from friends and relatives. Venture capitalists may also invest at this stage if they perceive a high potential for growth but this is rarely the case in LICs. This is where public intervention can play a key role in the support of MSMEs. For instance, Belgian Technical Cooperation (BTC) in Benin subsidizes the initial physical capital for micro-agricultural enterprises. However, there is concern about the selection of the beneficiaries and the incentives such support creates especially if these subsidies remain permanent in the same region.

The growth stage is characterized by rapid development of the products and services and an important demand to satisfy. However, the business may face liquidity and working-capital shortages, which leads to a need for overdraft facilities. Hence, firms need substantial funding at this stage.[7] Firms are here more likely to access bank credits readily (thanks to a good credit history) and attract venture capital (VC).[8] Equity financing is also considered at this stage (both private equity like VC and public stock offering) mainly to increase capital in order to expand activities. In LICs, VCs are not really attracted to such businesses due to a lack of innovation and stability (both economic and political). Hence, most such firms do not really grow properly and remain small businesses. However, it is not clear whether or not those firms really want to grow or simply want to remain in the market and operate as usual in order to meet subsistence needs. There are, however, more and more private equity funds supported by Development Finance Institutions (DFIs) that target SMEs either directly or indirectly via micro-finance institutions (MFIs). Some of those funds are: AfricInvest (North and West Africa), the Rural Impulse Fund (RIF) for many regions in LICs, and REGMIFA in middle income countries.

Finally, growth slows down as the firm matures. If there are no new projects, the firm could rely more on internal financing as retained earnings are high, which reduces its external financing needs. At this stage, the owners' preferences are key in choosing the source of funding as the business is assumed to

[6] Enterprise surveys (2009).
[7] For working capital, in particular, and fixed capital if there are plans to expand.
[8] Venture capitalists usually require a high growth potential from the firm and innovation.

have access to a wider range of financing, including the possibility of selling some assets (in particular the least productive ones). Alternatively, if the firm's profitability and growth are stable, buyouts and recapitalizations could occur. The shareholders might sell all or some of their shares to a venture capitalist, which could bring additional capital to strengthen the firms' activities.[9] Finally, if a well-functioning domestic stock market exists in the country the firm might wish to "go public" through an initial public offering (IPO) thereby accessing a new category of investors.

b. Demand-side theory of internal financing of MSEs

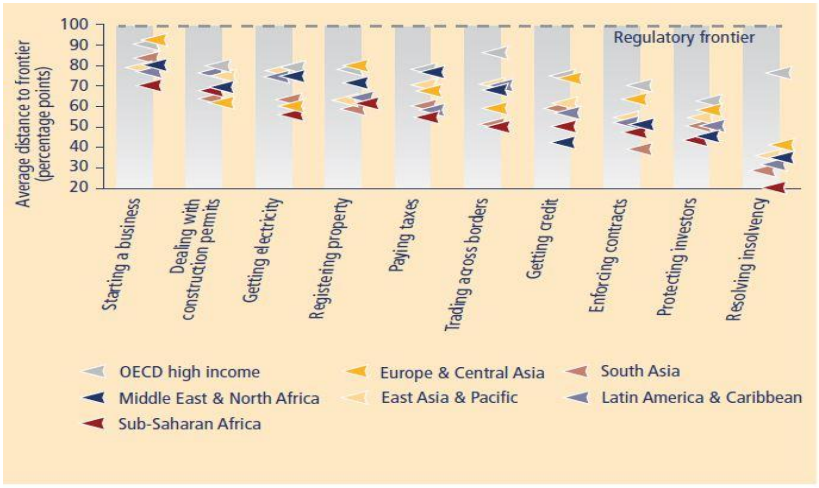
The demand-side argument is essentially based on the life-cycle theory to explain the differing financial behavior of MSEs and larger firms (see Weinberg, 1994 for a review of this literature). MSEs are typically young while their larger counterparts are old. Moreover, the life-cycle argument assumes that the ability of the manager is an important determinant of productivity and growth. At the early stages of a venture, this ability is uncertain and low. Over time as the MSE survives and grows, the manager learns through experience and his/her ability improves. In this framework, Weinberg (1994) observes that the demand for investment in young firms will increase in periods when they perform well, but these are also times when MSEs have ample internal funds so they will tend to finance their investments internally. However, the investment requirements of larger firms need not necessarily be related to their current performance, since their management has matured and have learned through experience. Thus, larger firms will resort more to external financing to meet their investment requirements.

1.2.3 Business environment

In addition to the difficulties in obtaining external financing, MSMEs are confronted with constraints that determine the overall quality of a business environment. Those factors also matter for a firm to be run successfully and include: reliability of electricity supply, political stability, efficient regulation, and affordable taxes. Most of these factors are, however, exogenous to the firms and can only be improved by the public sector.

[9] Guide to Venture Capital, MPG group/Growth and innovation, p. 3.

Figure 3: *LICs are farthest from the regulatory frontier*



Source: Doing Business database.

Notes: *figure is from Doing Business 2014, p. 4.*

Some measures have been taken to alleviate the degree of complexity and the cost of the regulatory process for firms. Those costs arise from the number of procedures required and the time needed to fulfil them (faced both by entrepreneurs and banks) not only before the start of a business but also during its operation and specifically in the event of litigation. The elements involved in proxying the costs incurred during the process of setting up a business usually summarized by the World Bank's Doing Business Indicators. The indicators provide an overview of how easy it is to start a business, to operate it, and to resolve issues when things go wrong (insolvency for example). Figure 3 gives an idea about how far (in percentage points) economies are from the "ideal" business environment frontier[10] formed by the top scores in each indicator worldwide. As can be seen from Figure 3, "starting a business" is more or less easy everywhere even in LICs thanks to recent reforms (2012/2013). As pointed it out in the Doing Business 2015 report some of the reforms consisted of "putting procedures online" (in 109 countries out of 189 surveyed), "having no minimum capital requirements or having reduced them" (in 99 countries out of 189),[11] and "having and improving a one-stop shop for business start-up procedures" (in 96 out 189).[12] However, "resolving insolvency" (in terms of time, costs and outcomes of the procedure) remains a big issue, particularly in Sub-Saharan Africa (Figure 3). It is worthwhile to have a closer look at this critical issue.

According to *Doing Business 2015*, the strength of the insolvency framework can be measured by assessing whether or not countries have adopted internationally recognized good practices. Four domains are considered in this framework of the resolution of insolvency (by the World Bank[13] and UNCITRAL[14]):

(i) The commencement of insolvency proceedings in function of the type of procedure adopted (liquidation, reorganization, or both).

[10] The most efficient or best practice frontier is normalized to 100, the worse being 0.
[11] For example, Benin and Senegal have reduced it, Morocco abolished it.
[12] As in Benin, Burundi, Mali.
[13] World Bank's Principles for Effective Insolvency and Creditor/Debtor Regimes.
[14] United Nations Commission on International Trade Law's legislative.

(ii) The management of the debtor's assets: this might be organized in a way that makes it possible or not for the firm to continue operating and even access new financing.

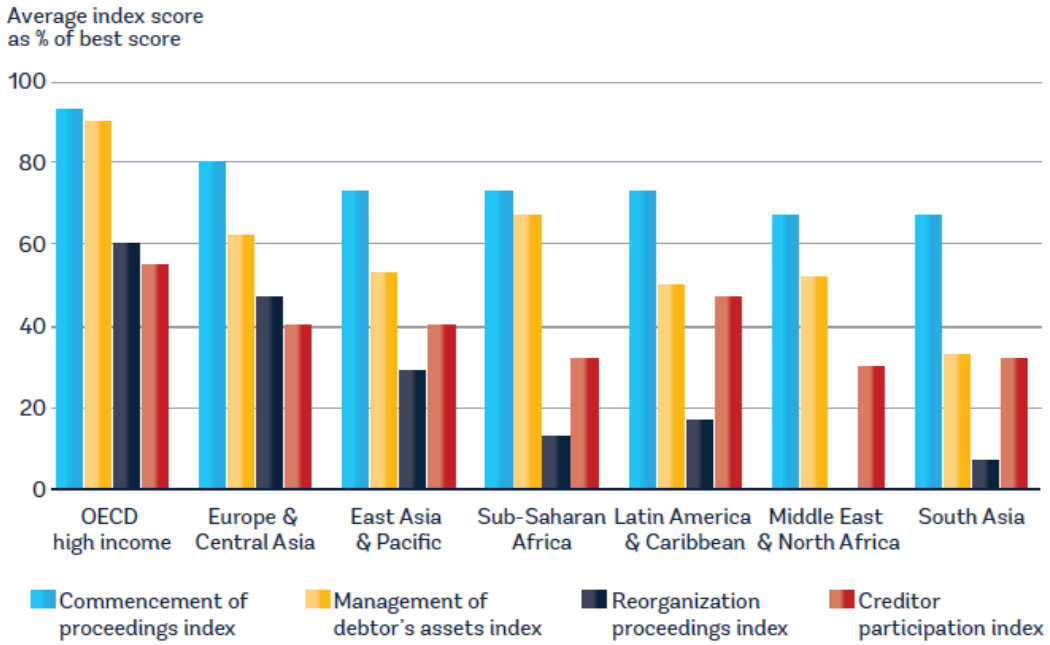
(iii) The reorganization proceedings: this determines how creditors vote on reorganization plans and the types of protection afforded to dissenting creditors.

(iv) Creditor participation in insolvency proceedings: Are they involved in the proceedings, in the sale of the debtor's assets, etc.?

On the demand side of the credit market, firms in need of external finance also want to know whether the standards used to declare insolvency are soft or not and if there is a possibility of operating as a going concern during insolvency proceedings or of having access to new financing.

Figure 4 indicates the average index score as a percentage of the best scores (the best insolvency resolution plans) in each category: the higher this average percentage, the better the insolvency resolution scheme implemented. As can be seen from Figure 4, reorganization proceedings (reorganization, liquidation, foreclosure, or receivership) and the management of the debtor's assets are still a clear challenge in Sub-Saharan Africa and South Asia, which regions encompass the vast majority of the developing countries. When the most preferred insolvency proceeding is simple liquidation of a business, engaging in external financing could deter. A similar deterring argument for lenders if the role and the participation of the creditor in the process is not clearly defined in the insolvency procedure.

Figure 4: *Strength of Insolvency framework*



Source: *Doing Business 2015, p.100.*

Following this description of the different constraints experienced on both the demand and the supply side, the next section emphasizes the main elements of the data concerning firms' access to external finance.

2. Stylized facts about firms' access to finance

This section presents four salient facts that characterize important aspects of the access of MSMEs to external financing. We discuss each of them with particular reference to MSME's in LICs and situate them with respect to larger firms and firms operating in other income-group countries. Unless otherwise indicated, the data used in this section come from the World Bank Enterprise Surveys in 132 countries including 30 Low Income Countries (LICs), 88 Middle Income Countries (MICs), and 23 High Income Countries (HICs).[15] This dataset contains information on firms operating in the formal sector, mainly in the non-agricultural private economy, including the manufacturing and service sectors.

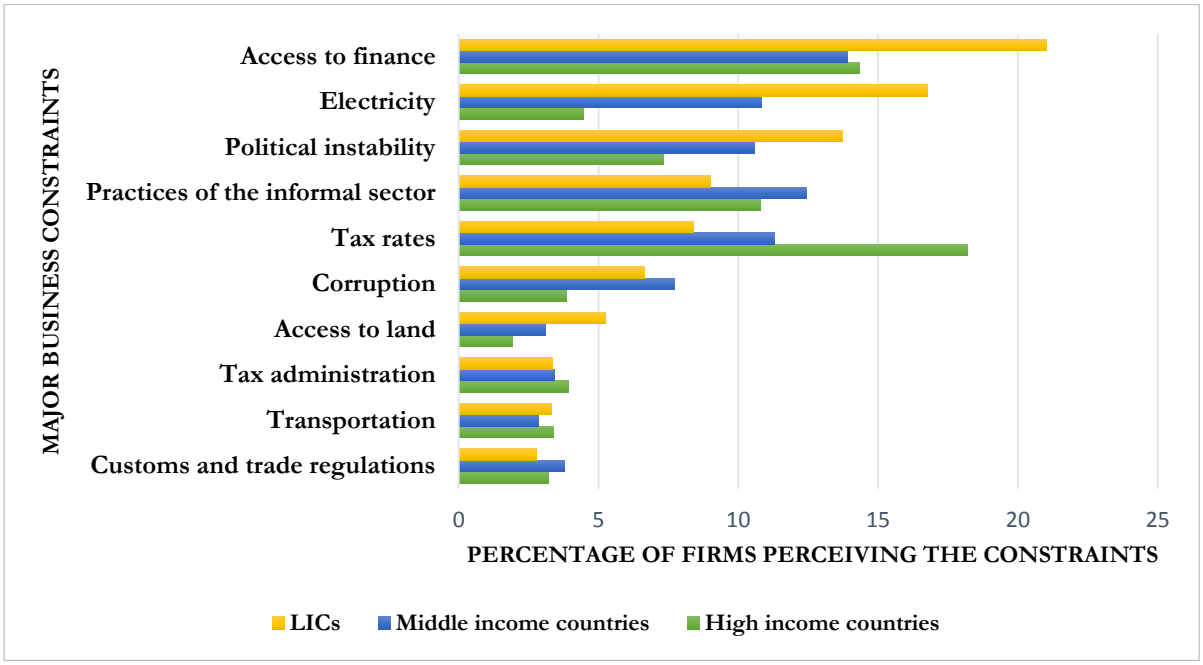
2.1 Access to external finance is a major constraint for firms in LICs

Figure 5 shows the average proportion of firms, regardless of their size, which report the top ten obstacles to their development. Panel A of Figure 5 presents the data for LICs, MICs and HICs whereas Panel B focuses on Fragile States. Clearly, most of the firms perceive access to external finance as an important constraint on their activities. In particular, access to finance is considered the dominant constraint for firms operating in LICs and MICs (22% and 14%, respectively) and the second major obstacle (14%), right after taxation (18%), for firm growth in HICs (Panel A of Figure 5). Overall, these data suggest that, on average, access to external finance is more problematic in poorer than in richer countries. This observation holds on average both for fragile and non-fragile states.

The two other important challenges for firms in LICs are shortages of electrical power and political instability. However, according to firms in fragile states, political instability is slightly more detrimental to their business than the constraint on the supply of electricity; see section 1.2.3 for a broader discussion on business environment.

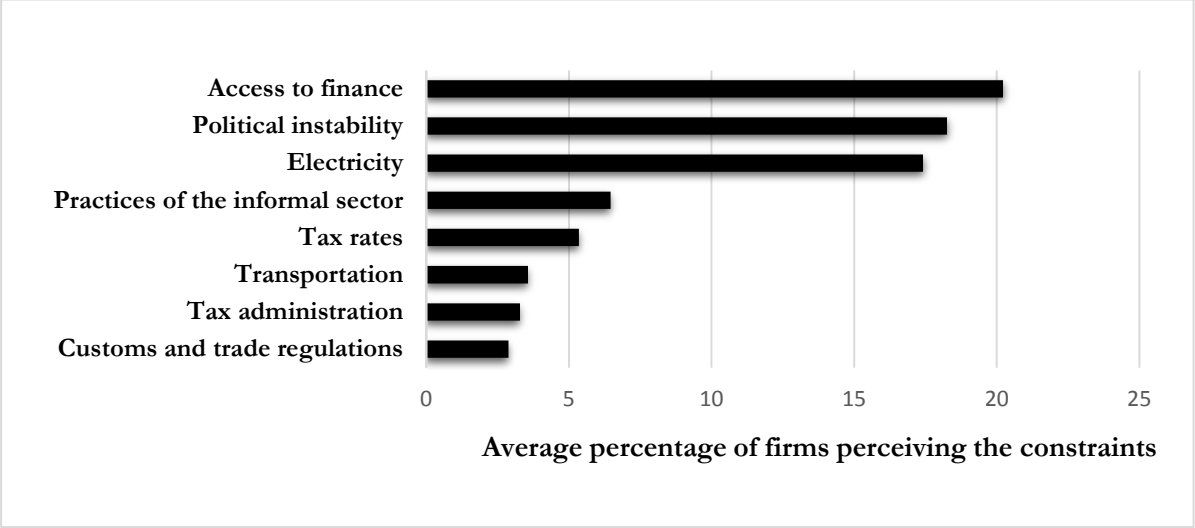
***Figure 5**: Access to finance as a major constraint to the growth of firms in low income countries*

A. Top ten constraints for firm growth in LICs, MICs, and HICs



[15] The group definition is based on income levels reported by the World Bank in 2014

B. Top ten constraints for firm growth in fragile states



Source: *World Bank enterprise surveys 2007-2013 (cross-country average proportions of firms)*
Fragile states*: Afghanistan, Central African Republic, Chad, Dem. Rep. Congo, Eritrea, Liberia Madagascar, Malawi, Mali, Myanmar, Nepal, Sierra Leone, and Togo.*

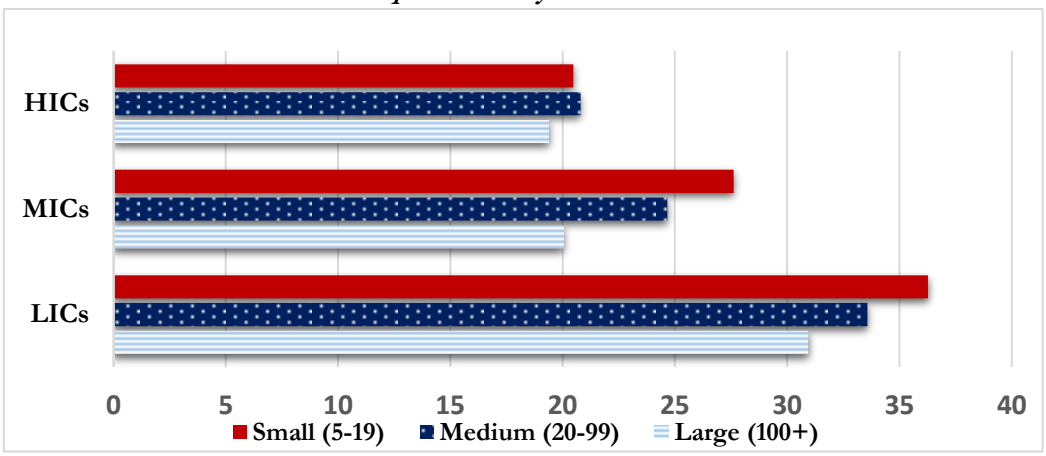
2.2 MSMEs have relatively less access to external finance

The top panel of Figure 6 shows that, irrespective of the level of economic development of the countries, the perceived external financing constraint is on average more pronounced for relatively small firms, although this effect is less apparent for HICs. The data presented in Panels B and C of Figure 6 also confirms this size effect for firms that have actually gained access to external finance, defined here as access to loans and credit lines with banks. In LICs, less than 20% of small firms on average obtain bank financing compared to 31% and 42% for medium and large firms, respectively. The pattern is similar for MICs and HICs with, however, larger proportions of firms having access (e.g., 30% of smaller firms had access to bank financing in MICs). Moreover, as illustrated in Panel D of Figure 6, the sectors of activity – manufacturing as compared to services, exporters as compared to non-exporters – are associated with better access to external financing. Note that this seems to be closely related to the size effect since firms in manufacture and firms that export tend to be larger than the others. Hence, it stands out that, on average:

- the access of firms to external finance improves with the level of economic development, an observation that is in line with the data presented in Figure 5:
- irrespective of the level of economic development, however, access to external finance improves with firm size. Thus the small firms' external financing problem is not limited to poor countries, and we need a general theory to explain this phenomenon as we stated in Section 1.2.1.

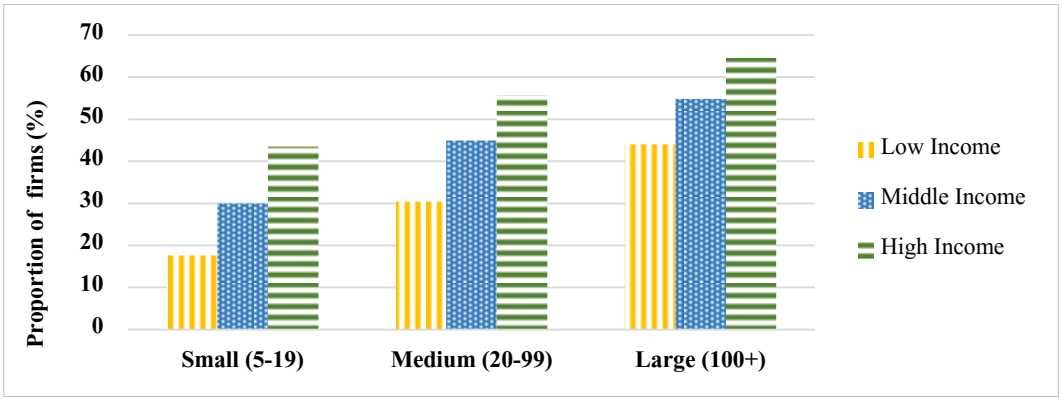
Figure 6: *External financing and firm size*

A. External finance constraints as perceived by firms



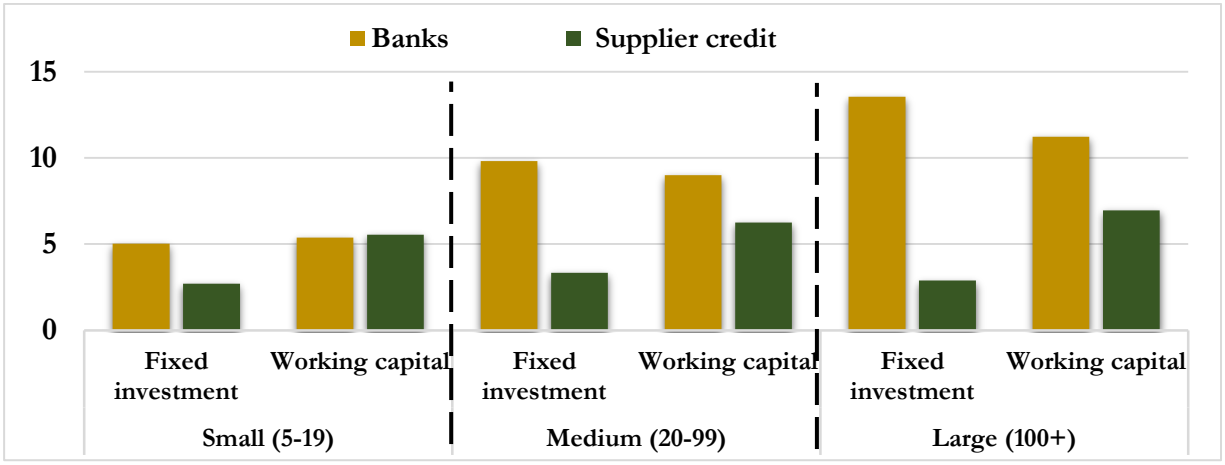
Source: *2010-14 data from the World Bank Enterprise Surveys (database), http://www.enterprisesurveys.org*

B. Bank financing and firm size



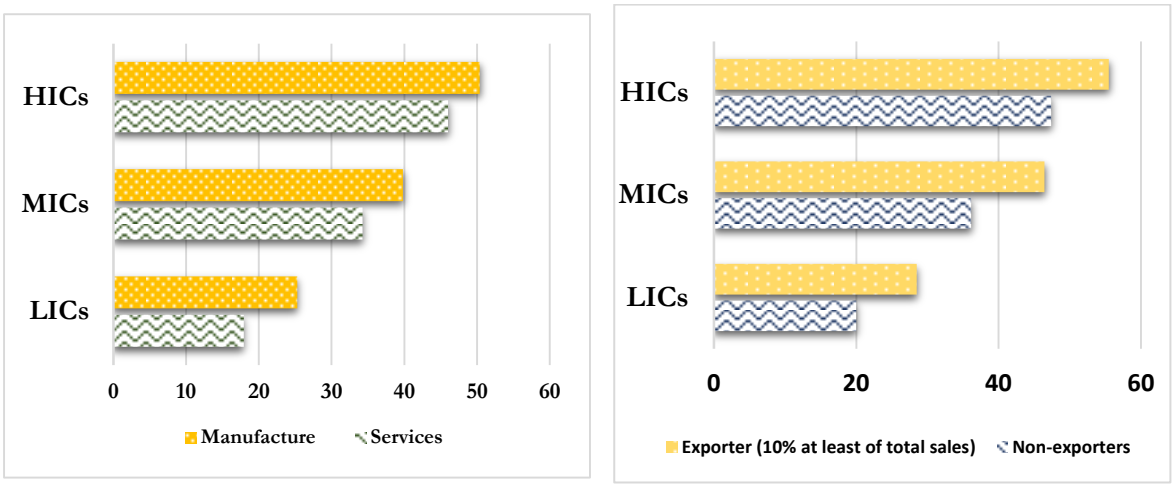
Source: *World Bank Enterprise Surveys 2006-2013*
Notes: *Data are from the World Bank Enterprise Surveys and have been averaged by firm size and country income groups.*

C. Working capital and fixed investment financed externally



Source: *World Bank enterprise surveys 2006-2013*

D. Bank financing and sector of activity



Source: *World Bank Enterprise Surveys 2006-2013.*

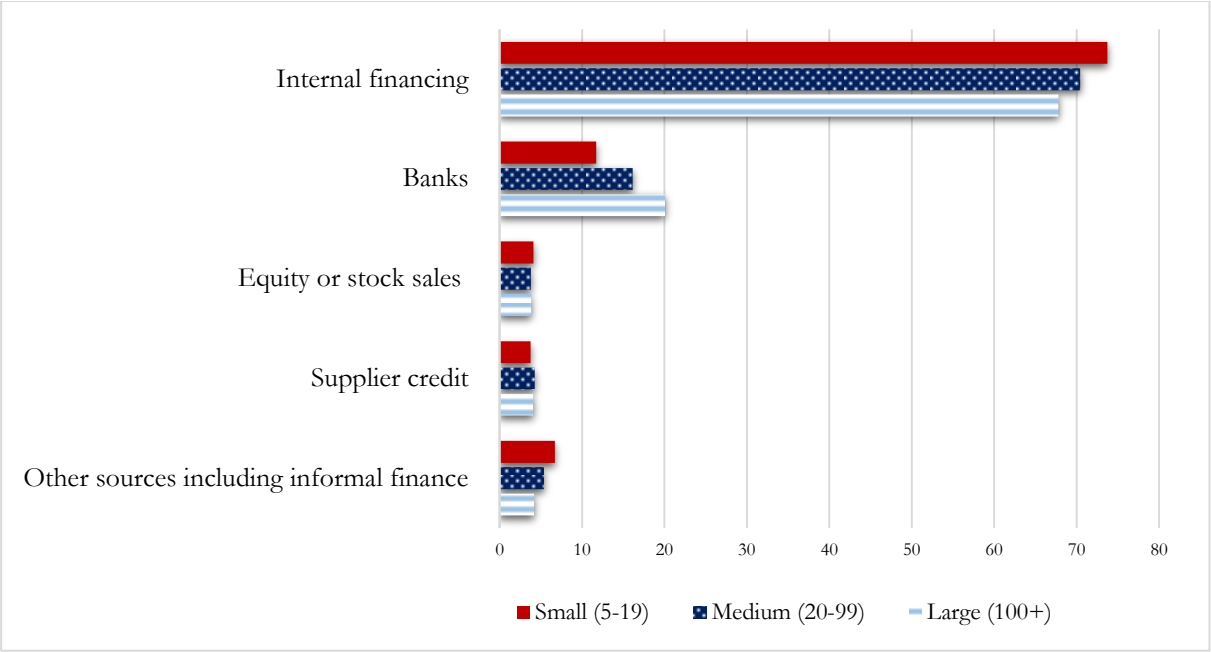
2.3 Internal funds are the most used source of financing for firms

Figure 7 reports the different sources of financing used to fund fixed investments (durable assets, tangible or non-tangible) in LICs and MICs.[16] It distinguishes between internal financing, bank financing, new equity financing, supplier credit and other sources. One notes that internal resources are the most widely used among all of the available sources of financing for fixed investments. On average, more than 70% of fixed-investment needs are financed with internal funds. This value is slightly higher for smaller firms, which seem to rely relatively more on internal funds than do the medium and the larger firms.

Banks are by far the most widely external financing source for firms in LICs and MICs.[17] However, smaller firms have relatively less access to bank financing, an observation that is in line with the data presented in Figure 5.B. Small firms rely relatively more on informal finance. Finally, note the limited role of equity financing across all firms.

[16] The facts presented here hold apply for firms in HIC.
[17] The same holds true for SME operating in Europe (see European Commission, 2014).

Figure 7: *Sources of fixed investment financing in low and middle income countries*

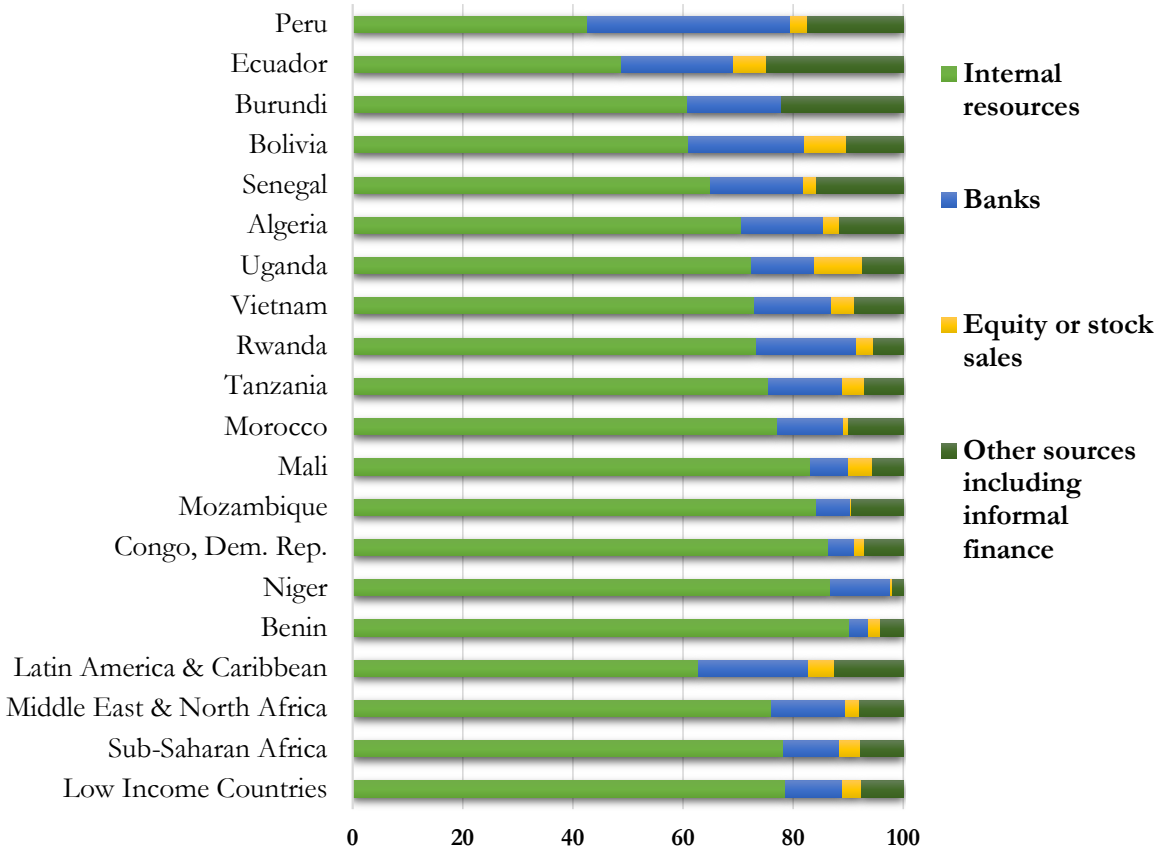


Source: *World Bank Enterprise Surveys 2006-2013.*
Notes*: Data are from the World Bank Enterprise Surveys and have been averaged by firm size and sources of financing.*

We now focus our analysis of internal versus external financing and of its various sources and on the situation of firms in the 16 of the partner countries preferred by Belgian development cooperation. Figure 8 shows the relative use of the different sources of financing for fixed investment, averaging over all types of enterprises, in each of the 16 partner countries. The predominant role of internal financing is confirmed, with the average intensity in use above 70%, including many cases where the use is more than 80% (e.g., Benin, Niger, Mali, Mozambique, Dem. Rep. Congo, and Tanzania), which suggests that the role of external finance in these countries is quite limited. Among external financing sources bank credit is particularly low in some countries (e.g., Benin, Dem. Rep. Congo, Tanzania, Mozambique, and Mali). The use of informal financing sometimes even surpasses bank financing (e.g., Burundi, Ecuador, RDC Congo and Mozambique).

Note, however, that access to external financing is relatively more pronounced in some countries (e.g., Peru, Ecuador, Burundi and Bolivia) either in the form of greater access to bank financing (e.g., Peru and Bolivia) or to informal financing (Ecuador and Burundi). In line with this observation, firms operating in Latin American and Caribbean countries have on average better access to external financing than do others.

Figure 8: *Firms sources of finance by country: the predominance of the use of internal funding*



Source: *World Bank Enterprise Surveys 2006-2013*
Notes: Data are from the World Bank Enterprise Surveys and have been averaged by country and sources of finance.

To put these observations in a broader perspective, it is useful to contrast them with the corresponding situation of firms in developed countries. For instance, according to the 2013 Survey of European SMEs in 28 EU countries, about 26 % of SMEs rely, on average, on internal funds in 2011-2013 (European Commission, 2013). Moreover, bank financing is the main source of funding for 40% for them. Thus, SMEs operating in HICs rely relatively much more on external financing in comparison with their counterparts in LICs and MICs. Moreover, a general picture emerges for external financing. In particular, bank financing represents the main external financing source for all SMEs in LICs, MICs and HICs. The following stylized fact offers some insights about these general facts.

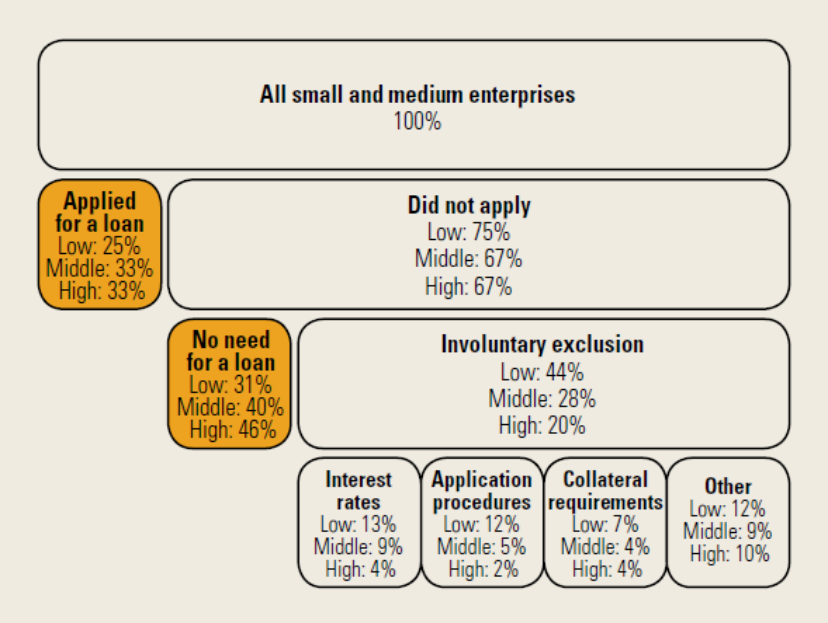
2.3 MSMEs' external financing exclusion: demand and supply factors both matter

Figure 9 reports the results of a recent World Bank survey in 120 countries and presents the reasons why SMEs did not apply for a bank loan. The data are aggregated across groups of countries at different stages of economic development and according to firm size.

The findings can be summarized in the following points.

- First, the data is in line with our earlier observation that firms in LICs have relatively less access to external financing. In particular, relatively few firms operating in LICs (25%) apply for bank loans as compared with their counterparts in MICs and HICs (33%).

Figure 9: *SMEs' financial exclusion*



Source: *2006-12 data from the Enterprise Surveys (database), International Finance Corporation and World Bank, Washington, DC, http://www.enterprisesurveys.org.*
Note: *The graph is from GFD report 2014 on financial inclusion, Chap 3, p.117.*

- Second, SMEs did not apply for a loan either because they do not need a loan (a "voluntary" exclusion from external finance) or because they feel they would not meet or could not afford the conditions set by the credit supplier (an "involuntary" exclusion).[18] Voluntary exclusion is directly linked to demand factors, such as insufficient growth prospects or limited innovative capacity. "Involuntary exclusion", on the other hand, clearly points to constraining supply factors, as perceived by firms (too high interest rates, too complicated loan application procedures, insufficient collateral).

Comparison across the two types of factors and across country groups shows that firms in LICs perceive supply-related factors to be more important as constraints for access to bank loans (44% versus 31%) whereas the reverse holds true for SMEs in MICs and HICs (28% and 20% versus 40% and 46% for MICs and HICs, respectively). However, the percentage of SMEs that point to demand factors as the causes of their exclusion from bank loans is still important (31%). Thus, these data suggest that facilitating access to bank financing of SMEs in LICs would require improving both demand- and supply-related factors although more emphasis would be needed on supply factors.

Among the reported motives for "involuntary exclusion", interest rates, application procedures, and other non-specified reasons are the most important supply-related factors for LICs (see Figure 9). A bit unexpectedly perhaps, collateral requirements do not seem to play a larger role in LICs than in HICs as a factor for involuntary exclusion.[19]

[18] Note that the figures provided on Figure 9 about financial exclusion (both voluntary and involuntary) should be seen as lower bounds for overall financial exclusion given that loan-application rejections are not taken into account here.

[19] In line with the data reported in Figure 5, the conditional probabilities for LIC firms for being involuntarily excluded because of application procedures and because of interest rates are 0.27 and 0.30, respectively against 0.10 and 0.20 for HICs, respectively. The conditional probability of being involuntary excluded because of collateral requirements is 0.16 in LICs and 0.20 in high income countries.

This might be due to a relatively greater ease of generation and usage of internal funds and the availability of diversified sources of external funds[20] in richer countries.[21]

Overall, the stylized facts indicate that small firms, whether operating in poor or rich countries, are more excluded from external financing than are larger firms, although this feature is more pronounced for LICs. As a result of this exclusion, these firms rely more on internal resources to finance their investment and working capital, which certainly curtails their development and growth prospects. The previous discussion also clearly indicates that access to external finance needs to be analyzed, in function of both supply- and the demand-side factors of the lending contract.

3. Public intervention for improving the access of MSMEs to external financing

3.1 The rationale for public intervention and the role of development cooperation

The general and theoretically well-founded rationale for public intervention in a market economy rests on the two concepts of market failure and externalities. Whenever the free functioning of markets distorts the allocation of resources, there is a case for public intervention to eliminate or correct these distortions through a mix of subsidies and taxes or by providing the goods or services are not or are insufficiently supplied by the market. A similar case exists when there are "externalities" in producing or in consuming goods and services. This occurs when the production or consumption activities carry benefits or imposes costs on other agents than the ones who decided to consume or produce. Public intervention is then required to increase the availability of those goods or services that have "positive externalities" as otherwise their supply would be suboptimum. Similarly, the government needs to step in to curtail the supply of goods and services with "negative externalities".

Both the "market failure" and the "externalities" argument motivate public interventions in credit markets, especially those benefiting MSMEs. As to the first argument, there is, indeed, a general failure of credit markets to appropriately matching between the demand and the supply of funds when information is asymmetric, as discussed above. Moreover, MSMEs are particularly vulnerable in this respect, for the reasons explained above, and face many hurdles when attempting to gain access to bank credit and even more to bond or equity financing on the open market. Public intervention in credit markets has thus quite naturally focused on correcting credit-market failures that are detrimental to MSMEs. This has been, and still is, the case in many advanced countries. The principle of such public interventions has quite naturally been extended to developing countries, where information asymmetry is particularly high and market failure severe and where it has been integrated into a broader, donor-supported, development strategy.

The second argument – "externality" – for public intervention to facilitate access for MSMEs to external financing is that a large part of job creation is achieved by MSMEs. Loosening financing constraints will lead, it is expected, to more investment, more jobs, higher incomes, better growth prospects and so on to the benefit of the population at large and not just to the individual firms benefiting from the support measures.

Public intervention in favour of MSMEs – to help them gain access to external financing – is, therefore, a well-founded and recognized policy objective and should be supported by development cooperation in line with its ultimate goal of sustainable economic development in order to alleviate poverty. An important caveat, however, is that public intervention needs to remain close to the general principles that

[20] OECD's Entrepreneurship at a glance 2012, pp. 43-44.

[21] Note that, although the rejection rate of loan applications is not very high, about 5% in OECD countries and about 16% on average in low income countries (Enterprise Surveys 2006-2013), access to external financing is still perceived as the most detrimental obstacle in particular for LICs where bank financing is the privileged source for external financing.

justify it. It should complement and support the spontaneous provision of credit by the market, not substitute for it. It should bring "additionality" and better quality to MSME financing, i.e., it should play a "catalytic" role, not stifle available or innovative sources of private financing.

The main actors in official development cooperation in this line of development policy are the Development Financial Institutions (DFIs), which may be bilateral (in which the government is the main stockholder) or multilateral ones (generally a department of a regional or multilateral development bank).

The support of public donors in order to improve access of MSMEs to external finance can target both the MSMEs themselves and the domestic financial sector, mostly the banks, which are the MSME's primary source of external funds. The support can take the form of providing appropriate technical assistance and advisory services, of supplying funds directly in the form of grants, loans or capital, and of setting up and participating in various forms of risk-sharing mechanisms. We detail below the available instruments that development cooperation can make use of and explain briefly their characteristics, advantages and drawbacks. We use here in large measure the OECD-DAC classification of instruments (OCDE 2013 b, p. 5; see also EURODAD 2014 p. 42).[22]

3.2 The main financial instruments for fostering access private sector funding

We distinguish three mains categories of instruments: grants, debts, and equity investments. A fourth category can be added: other risk-mitigating instruments that combine characteristics of the first three types. Although quite different in nature and addressing different aspects of MSME financing constraints, these instruments are often used in combination (see also below, Section 4.2.2, in which we illustrate the instrument mix of several DFIs).

a. Grants

Grants, which are fully accountable as official development assistance (ODA), are unilateral transfers of funds in order to improve access by the private sector to external finance in two main ways:

- either by offering technical assistance and support to public policy or private initiatives fostering better access to financial intermediation for a country's MSMEs in general,
- or by directly improving access conditions and financing costs for selected individual borrowers.

Technical assistance grants can be organized at different levels:

- at the country level in order to provide "public goods" like setting up a public credit registry and improving the legal environment in which credit contracts are designed and executed (e.g., defining types of acceptable collateral), thereby decreasing the costs of lenders for monitoring borrowers and mitigating the non-repayment risk (e.g., efficient insolvency laws and court or other dispute resolution procedures and adequate consumer/borrower protection laws);
- at the level of the financial sector itself, through targeted capacity building programs (bank accounting and risk management, credit analysis scoring techniques, etc.);
- finally, at the level of the MSME or even individual firms, for example, to increase management skills and financial literacy and to help design business plans. Such technical assistance grants are

[22] We focus here only on "market-oriented" public interventions and not on "directed lending" policies sometimes pursued by local governments. Under such a policy, financial intermediaries (banks of MFIs) are asked to direct a portion of their credit portfolio to target sectors (e.g., to SMEs or to those in a priority sector, such as agriculture). Such policies are obviously beyond the scope of development cooperation interventions. In addition, their record rarely provides successes, mainly because of credit-allocation inefficiencies, political interference and poor governance (World Bank, 2014, pp. 121-122).

especially valuable for countries where the financial infrastructure is minimal and where public intervention is crucial in setting up new institutions and upgrading the existing financial sector.

Interest rate subsidies (IRS) are grants designed to make the cost of borrowing affordable to the borrower. Public development funds finance part of the interest cost of specific projects, from infrastructure projects to micro-financing. Such IRSs have often been – and still are in some cases – combined by donors with official development loans (making them eligible for ODA). The current trend is to combine IRS-ODA grants with non-ODA loans to "increase leverage", i.e., to increase the amount of financing made available per euro of ODA for development projects that are deemed critical. IRS grants makes financing in such **blending mechanisms** more attractive for DFIs and for the private sector. Examples are the seven current EU blending facilities that finance infrastructure as well as private sector support projects (SMEs).[23]

In such blending facilities, grants can take various forms:

- initial investment grants, which cover part of the project's initial costs;
- performance related grants, such as output-based grants, which are only disbursed if the beneficiary reaches a specific target;
- specific project-linked technical assistance grants that help finance the design and planning of complex projects.[24]

When used to enhance access of SMEs to external finance, interest-rate subsidies or other types of direct-grant subsidies blended with a loan need to be handled carefully. Indeed, their very purpose is to provide loans under below-market conditions. Although obviously beneficial to otherwise excluded borrowers, an ill-designed program may ultimately not be very efficient. If subsidization of borrowers is excessive and not well targeted, subsidized loans will generate unfair competition with unsubsidized financial intermediation activities. Existing financial intermediaries or potential entrants will be discouraged and refrain from approaching this segment of clients. Grants must, therefore, be targeted as complementary to autonomous financial development and not substitute for it. Also, it has to be kept in mind that any type of subsidization can also have undesirable incentive effects on borrowers, who may pursue their own, self-serving objectives and lead, if unchecked, to financing projects that are too risky or with expected returns that are too low relative to the development goals set by donors. Finally, grants have to be conceived as a transitory instrument in support of a policy of expanding financial access for MSMEs because of its budgetary costs for the donor and also because long-lasting subsidies might lead ultimately to undesirable distortions within the beneficiary country's financial system.[25]

b. Debt instruments

Development cooperation can expand MSME financing through **non-concessional loans** supplied by bilateral or multilateral DFI on their own or in partnership with local financial intermediaries, public or private, or with international private-investor funds. DFI sponsored loans can be channelled directly to MSMEs to finance firm-specific projects (**direct lending**) or, more frequently, to local financial intermediaries (banks or MFIs), which themselves will then "on-lend" the funds to the targeted clients (**indirect lending**[26]).

[23] Each of these 7 geographically oriented facilities blends budget development financing from EU and member state budgets with loans or equity given by bilateral or multilateral development finance institutions. See EU (2015): https://ec.europa.eu/europeaid/policies/innovative-financial-instruments-blending_en

[24] On the instruments used in EU blending facilities, see Nunez Ferrer et al. (2011), pp. 19-22.

[25] Claessens et al. (2009, p. 28) insist on the need to provide a "time bound exit strategy".

[26] E.g., by opening credit lines (CL) for MSMEs, which will be especially helpful for firms with frequent liquidity imbalances.

DFI loans are expected to have a "catalytic effect" on other potential private lenders to MSMEs. Because DFIs benefit from their government's backing as well as from often longstanding experience with lending techniques and risk management, they are able to finance themselves at low rates for long maturities when they borrow on international capital markets. They are thus able to "pass through" this advantage to MSMEs in developing countries by offering them favourable borrowing terms. Note that these terms are more favourable because of expected efficiency gains generated by DFI lending and not because of any explicit interest-rate subsidy.[27] The "market pricing" of the loans also implies that DFIs secure a cost mark-up that guarantees their shareholders a minimum threshold return on capital. Any below-market pricing of such loans entails the risk of market distortion, as already noted above as regards interest-rate subsidies.

The catalytic effect of DFI lending occurs when private intermediaries increase their lending to MSMEs when they would not otherwise have done so. Projects seen by them as too risky or not profitable enough now become "bankable". The main mechanism through which this usually occurs is when **syndicated lending** is organized. In such syndicated loans, a DFI and a local bank or foreign investment fund participate jointly in a funding program for targeted MSMEs. Private participants benefit from the same creditor status as the DFI, which is for them a much better status as it implies much less risk-taking than if they had lent on their own. If these syndicated loans do, indeed, attract new funding, i.e., if they do not just substitute for existing private loans by reorienting MSMEs to this more favourable lending option, the "additionality" goal of DFI lending will be achieved.

Many DFI-sponsored loans have special characteristics that organize risk-sharing between the lender(s) and borrowers. **Lending in local currency** is particularly helpful, often essential, for MSME borrowers. Given that MSME lending programs are usually funded in a foreign currency, the exchange rate risk has to be borne by the syndicate of lenders. With **lending at fixed interest rates, for long maturities**, the interest-rate risk is borne not by the borrower but by the lender. The main risk in lending, the **credit risk,** can best be minimized by suitable credit analysis and a lending technology that takes the specific environment into account (possibly inspired by the lending techniques of successful MFIs). Technical assistance by DFIs can be crucial in this respect (see above). The remaining credit risk can be shared between the borrower and the lender through collateral. If traditional collateral (fixed real assets like buildings and land) are not available, substitutes may be able to be found in "movable collateral" (if legally allowed).[28] Alternatively, leasing and factoring by specialized local firms could in some cases be alternative ways of funding MSMEs when traditional collateral is lacking.[29] Although probably not currently a significant policy element for most DFI's, some multilateral DFIs have shown interest in these alternative MSME funding techniques (World Bank, 2014, pp. 126-128).

Finally and importantly, the share of credit risk borne by private sector participants in MSME lending programs can be decreased in two ways by the supporting DFI:

- The DFI accepts a **junior** status as creditor, while leaving the other creditors with a **senior** status, implying that they will be first in line for reimbursement by the debtor;[30] such junior loans, also called "**subordinated loans**" (or quasi-equity) are part of the broad category of "**mezzanine financing**", as it stands *in between* senior loans and equity financing (see below) in terms of risk sharing with other

[27] Note that there may be some "hidden subsidies" because of advantages DFIs may enjoy (like access to "cheap", ODA sponsored, technical assistance) relative to private financial intermediaries and that they "pass through" to borrowers. See EURODAD (2014, p. 16).

[28] Machinery, equipment or receivables can be thought of as "movable collateral" (World Bank, 2014, p. 123).

[29] Leasing is a type of asset-backed lending, as the leasing firm that finances equipment or machinery remains the owner of the asset. The firm pays regularly for its use. A factoring firm buys at a discount the sales receivables of a firm. Leasing is deemed to be more flexible than bank credit. Factoring is particularly attractive for firms that supply clients that are credit worthy but short on liquidity (see Beck and Cull, 2014, p. 21).

[30] Senior loans can also be divided into unsecured senior loans and asset-backed senior loans, the latter benefiting from a guarantee (collateral) represented by part of the firm's asset.

creditors. Similarly, convertible loans also share some characteristics with equity as they are loans that the lender may convert into equity under specified conditions.[31]

- The DFI issues **credit guarantees** (further briefly discussed below) to the benefit of the private sector lender.

Both modalities thereby enhance the attractiveness of private lending to MSMEs. A bank benefiting from such a favourable credit risk-sharing arrangement for part of its exposure to MSMEs will presumably offer increased access to credit to the targeted clients and reduce the loan charges it applies. Such credit guarantees, as part of the risk-mitigating instruments, are actually contingent grants as they will materialize as ODA grants if the guaranteed loan defaults and the beneficiary of the guarantee calls it in.

c. Equity financing

Another modality for development cooperation to improve access to external financing for SMEs is to enter into a firm's capital by purchasing parts of the ownership (shares) of the firm. In doing this, it accepts full risk-sharing with the firm's other owners as the firm's capital is by definition intended to be loss-absorbing. Access to external financing in the form of risky capital is known to be the most difficult for SMEs, especially the newer ones, particularly in developing countries where open capital markets are greatly underdeveloped and other types of private equity financing, like venture capital funds,[32] are still rare. As already discussed above, most small businesses can rely for their development only on retained earnings (if any) and on funds provided by friends, family, or groups of related companies.[33] These generally do not meet medium and long-term financial needs. Equity financing of SMEs by DFIs, either directly (rare) or indirectly (in association with other local or international private investors, through dedicated mutual funds), is thus most welcome. DFIs provide the fresh funds needed for the firm's development and, in addition, give a favourable signal about the firm's creditworthiness, making it more able to get access to bank financing. As for loans, equity financing can also be designed to favour some shareholders with respect to the firm's bankruptcy risk (holders of "preferred" versus holders of "common" stocks;[34] "first loss financing", i.e., equity in the highest "risk tranche" of capital[35]). Whatever the extent[36] and modalities of a DFI's participation in a firm's risk capital or in dedicated mutual private capital funds, the key point remains the same as for loans: does the DFI's intervention really give rise to additional private sector financing and not just substitute for it and crowd it out?

d. Risk-mitigating instruments

Development financial institutions can complement the grants, loans and equity financing they provide to MSMEs by supplying various types of risk-mitigating and risk-management products.

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31 See, e.g., the European Commission's SME Guarantee Facility, which, through its "Equity Guarantee Window", organizes support for subordinated or convertible loans to European SMEs (OCDE, 2013 a, p. 20).

32 Venture capital funds specialize in injecting share capital in high risk but promising innovative businesses at an early stage of operation when the firms still lack creditworthiness as they have no retained earnings and no marketable assets. Venture funds usually also provide technical support to firms, their incentive being to make them quickly profitable so as to be able to resell their shares with a handsome capital gain.

33 SME Finance Policy Guide, 2010.

34 Common stocks share bankruptcy risk equally, once holders of preferred stocks have been compensated. Preferred stock holders usually also benefit from a fixed "first tranche" dividend. They usually do not have voting rights.

35 See Nunez and Behrens (2011), p. 20. Note that a "tranche" (a slice) is part of the "structured finance" vocabulary and indicates the specific (credit) risk class of the claim (loan or equity) within a firm's total liabilities.

36 Any investment in a firm's common stock capital also gives voting rights. If the investment is large enough, it gives the holders of the shares control rights over the firm's management and strategy. Such investments are called *direct* investments, as opposed to *portfolio* investment when control over the firm is not the investor's aim.

As already noted above, loan guarantees are a typical and frequently used instrument.[37] They insure the private lenders against part of the credit risk they take when financing MSMEs. Projects that were viable but not bankable (because of asymmetric information and insufficient collateral) can now be funded. To avoid excessive risk taking (moral hazard) by private lenders and too weak monitoring of borrowers (thus decreasing the latters' incentive to repay), the guarantees do not cover the total amount of the loan made, so that part of the credit risk remains with lenders. Guarantees are also offered for a fee – an insurance premium – for which market pricing is the rule for two reasons: to control lenders' moral hazard and to minimize potential adverse market distortions. For similar reasons, guarantees should only be paid out only after all possible recovery actions have been exhausted (World Bank, 2014, p. 122).

Guarantees can be attached to individual loans or to a pool of loans. In the latter case, the guarantee fund is revolving, it being used for successive eligible loans with new ones benefiting from the guarantee only when earlier loans have been fully repaid. A recent example (among many) is the CrossRoads Guarantee Fund set up in 2012 in Uganda (Cornish and Mugova, 2014). Supported by donors (DIFID and EU), it targets road-sector SMEs on the borrowers' side and banks and insurance companies on the lenders' side. Risk sharing between the Fund and participating lenders is on a 50/50 % basis. Early reported positive effects of this Guarantee Fund are the following (Cornish and Mugova, 2014, pp. 147-148): financial institutions have been encouraged to lend to a sector considered as risky; borrowers have seen, given the reduced risk to the lender, a reduction in requested collateral, which has allowed them to borrow larger amounts; and the moral hazard has been reduced, thanks to improved diligence in monitoring and stringent eligibility conditions to the program. Guarantee schemes need to be closely monitored. Even if no initial disbursements have to be made by the official guarantor agency (DFI or other), guarantees are susceptible to losses just as much as are loans or equity investments.

Note that other types of guarantees, not necessarily directly connected to loans, such as crop insurance, political risk insurance and foreign exchange hedging, can be usefully made available or financed (by grants) by development cooperation.[38] Together with appropriate technical assistance in risk management (also grant financed), this will raise risk awareness of SME borrowers and of financial intermediaries and help them deal with the respective type of risk they are exposed to. The vulnerability of SMEs as well as of financial intermediaries can thereby be effectively decreased. Greater financial stability for both borrowers and lenders can then be expected to lead to decreases in credit-risk premiums, in lower interest rates and, more broadly, in greater access of SMEs to external financing.

4. Structural aspects of Belgian ODA with respect to private sector financing

First, we document how the Belgian Official Development Aid (ODA) is allocated across sectors, how important it is in terms of support to the private sector, and how it compares with ODA allocations from other selected European countries. Second, a more specific comparative analysis of several development finance institutions (DFIs[39]) is provided as they often are a country's important intervening actor for official private sector support. We focus on the portfolio of financial instruments used by these DFIs to improve access to external finance for micro- small and medium-sized Enterprises (MSMEs) in developing countries.

[37] EURODAD (2014) estimate that guarantees accounted for 29% of new commitments made by four DFIs (ADB, DEG, IFC and Proparco) over the 2008-2012 period (see Section 4.2 below).

[38] ECDPM (2014, p. 46) includes these three risk-management products in the list of "instruments for leveraging private sector finance for development".

[39] DFIs are financial institutions that focus on developing countries and areas where access to finance for the private sector is limited or lacking. They are key actors in implementing public support in banking and financial services (for official as well as informal financial intermediaries).

For this purpose, we use two databases. First, we derive data on the sector of private activity (the production sector and the economic infrastructure and services from the **DAC-OECD[40] database** for the period 2004-2013 with a particular focus on five donor countries (Belgium, France, Germany, The Netherlands and Sweden). Second, we gather information from the Belgian Directorate General of Development cooperation **(DGD) and from different DFIs' annual reports**.

These four countries were chosen because of their similarity to Belgium. In particular, two of these countries are the same economic size as Belgium[41] and most of them are neighbors. Thus their respective private-sector ODA efforts are comparable.

Finally, we focus on the "production sector" and the "economic infrastructure and services sector"[42]because, as ODA allocation items, these two sectors are the most relevant to firms' activities and development, particularly for private resource mobilization (banking and financial services) and private sector development (for example, agriculture and industry expansion). The "'production sector" consists of ODA support to agriculture and industry while "economic infrastructure and services" encompasses ODA support to banking and financial services. Note that "economic infrastructure and services" also includes other elements (such as transport and storage, communication, energy) that are likely to facilitate firms' activities.

4.1 Overview of ODA allocation to the private sector: Where does Belgium stand?

The analysis in this section relies almost exclusively on the DAC-OECD database. Table 1 summarizes the information on the two sectors as well across the five countries. The data are in percentages of by the value of non-debt related ODA[43] in order to net out the effect of debt relief from the analysis. Our discussion will then concentrate on the two ODA allocation categories (the production sector and the economic infrastructure and services sector) and their specific sub-categories that are the most relevant for the private sector as defined earlier (agriculture, industry, and financial intermediaries and services). For those two categories combined ($a + b$ in Table 1), Germany comes out first with an average share of about 26% of its non-debt related ODA over the period 2004-2013, followed by Belgium and France (respectively 17.93% and 17.59% of ODA). Then come The Netherlands and Sweden, which have allocated respectively 16.48% and 11.51% of their non-debt related ODA to production and economic infrastructure and services over the period. These figures thus imply that the overall Belgian ODA performance in term of the support to the private sector is in the range of an average country among the five donors under consideration. In comparison with Sweden, however, which has a similar economic size, Belgium allocates relatively more of its ODA to the private sector.

In the following two subsections, we describe how ODA support to the private sector has been implemented in (a) the production sector and (b) the economic infrastructure and services sector. In each case, we emphasize the ODA efforts directed towards the sub-categories relevant for the private sector.

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[40] Development Assistance Committee-OECD *http://stats.oecd.org/*.

[41] Particularly The Netherlands and Sweden. France and Germany, relatively richer and larger than Belgium, can be seen as benchmarks.

[42] This set includes the social infrastructure and services (health, education, water and sanitation), which is the largest component of ODA (about 40% on average of non-debt related ODA in all of the selected countries), commodity and humanitarian aid, and budget support. So the two items selected form the database and their components are the most relevant to our definition of private sector.

[43] Actions relating to debt consist mainly in debt forgiveness, debt rescheduling or refinancing. Most of the DAC countries and in particular the countries of interest in this analysis have been involved in the Highly Indebted and Poor Countries (HIPC) program. Belgium, France and Germany, for example, allocated a substantial part of their total ODA for debt relief although to a different extent: on average and over the period 2004-2013, 16.6% of total ODA for Belgium, 21.7% for France and 15.6% for Germany against 2.2% for Sweden and 4% for The Netherlands (Table 1).

Table 1: ODA allocation in Belgium and some selected countries and sectors

	Belgium			France			Germany			Netherlands			Sweden		
	2004	2013	Average (2004-2013)	2004	2013	Average (2004-2013)	2004	2013	Average (2004-2013)	2004	2013	Average (2003-2014)	2004	2013	Average (2004-2013)
In % of non-debt related ODA															
a-Production sector	**8.16**	**11.28**	**9.6 (2.45)**	**5.14**	**4.94**	**6.08 (2.29)**	**5.02**	**5.9**	**5.73 (0.78)**	**5.75**	**16.78**	**6.93 (4.88)**	**2.88**	**8.65**	**5.73 (1.46)**
Agriculture, Forestry, Fishing	6.32	10.21	7.73 (2.38)	3.79	4.66	4.87 (2.14)	3.56	3.77	3.88 (0.79)	4.2	11.05	4.37 (4.05)	2.19	5.43	3.38 (0.95)
Industry, Mining, Construction	1.66	0.41	1.37 (0.72)	1.29	0.25	0.96 (1.4)	1.21	0.91	1.45 (0.54)	1.08	0.44	0.44 (0.45)	0.31	2	1.24 (0.43)
Trade policies and regulations	0.16	0.64	0.45 (0.28)	0.03	0	0.04 (0.04)	0.22	0.39	0.34 (0.17)	0.47	5.29	2.11 (1.92)	0.38	1.22	1.1 (0.36)
Tourism	0.02	0.02	0.03 (0.01)	0.04	0.03	0.2 (0.34)	0.03	0.02	0.06 (0.07)	0	0	0.015 (0.03)	0	0	0 (0.002)
b-Economic Infrastructures & services	**9.78**	**3.09**	**9.64 (4.59)**	**8.72**	**24.76**	**15.84 (7.36)**	**23.12**	**30.87**	**24.6 (4.71)**	**14.74**	**6.32**	**10.14 (5.09)**	**7.18**	**4.31**	**6.04 (0.93)**
Transport & Storage	3.47	0.51	2.45 (1.33)	5	14.51	9.48 (4.34)	3.31	2.18	2.39 (1.36)	0	0.18	0.47 (0.52)	2.42	0.78	1.25 (0.6)
Communication	1.14	0.5	0.39 (0.32)	0.69	0.99	0.29 (0.37)	0.24	0.26	0.18 (0.12)	0.53	0.01	0.33 (0.32)	0.65	0.13	0.24 (0.19)
Energy	0.41	1.51	1.33 (1.31)	1.79	8.84	4.38 (4.68)	13.91	15.05	12.2 (4.26)	3.71	2.37	2.29 (1.42)	2.44	0.94	1.8 (0.45)
Banking & Financial Services	**4.52**	**0.55**	**5.3 (3.25)**	**1.05**	**0.36**	**1.37 (0.91)**	**3.53**	**11.47**	**7.83 (2.29)**	**0.13**	**0.99**	**2.13 (2.31)**	**0.61**	**0.43**	**0.58 (0.21)**
Business and other services	0.25	0.02	0.18 (0.15)	0.18	0.05	0.3 (0.49)	2.13	1.9	2 (0.25)	10.37	2.76	4.91 (5.91)	1.06	2.03	2.17 (0.91)
In % of total ODA															
a & b (% of total ODA)	14.13	14.17	17.93 (6.5)	9.76	25.92	17.59 (7.41)	24.37	35.62	25.98 (7.11)	20.28	23.03	16.48 (7)	9.94	12.96	11.51 (1.1)
***Other non-debt related ODA (% of total ODA)**	64.61	84.53	67.24 (9.75)	60.68	61.36	60.75 (7.64)	62.23	63.45	58.45 9.74	78.68	76.67	79.34 (6.15)	88.8	87.04	86.26 (2.9)
Actions relating to debt	21.26	1.3	16.57	29.56	12.72	21.66	13.4	0.93	15.57	1.04	0.3	4.18	1.26	0	2.23
ODA-GNI ratio															
ODA % of GNI	**0.41**	**0.45**	**0.5 (0.07)**	**0.41**	**0.41**	**0.44 (0.04)**	**0.28**	**0.38**	**0.36 (0.03)**	**0.73**	**0.67**	**0.77 (0.05)**	**0.78**	**1.01**	**0.97 (0.09)**

Source: The data are from the OECD iLibrary database

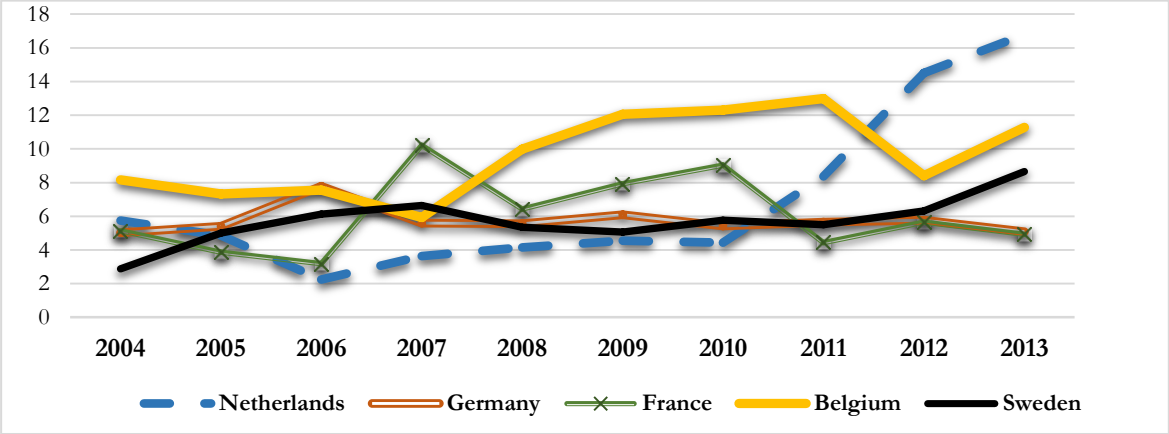
***Note**: Figures in parenthesis are standard deviations (average variations around the mean) computed over the 10-year period.*

**Other non-debt related ODA includes social infrastructure and services (health, education, water and sanitation), commodity and humanitarian aid, and budget support.*

4.1.1 The production sector

Belgium has on average put relatively more effort (9.6% non-debt ODA) in supporting the production sector of developing countries than the other countries during the period 2004-2013 (Table 1 and Figure 10). Observe, however, that this performance is relatively less stable (2.5 percentage points (pp) average variation (standard deviation) around the mean).

Figure 10: *Support to the production sector (% share in non-debt related ODA)*

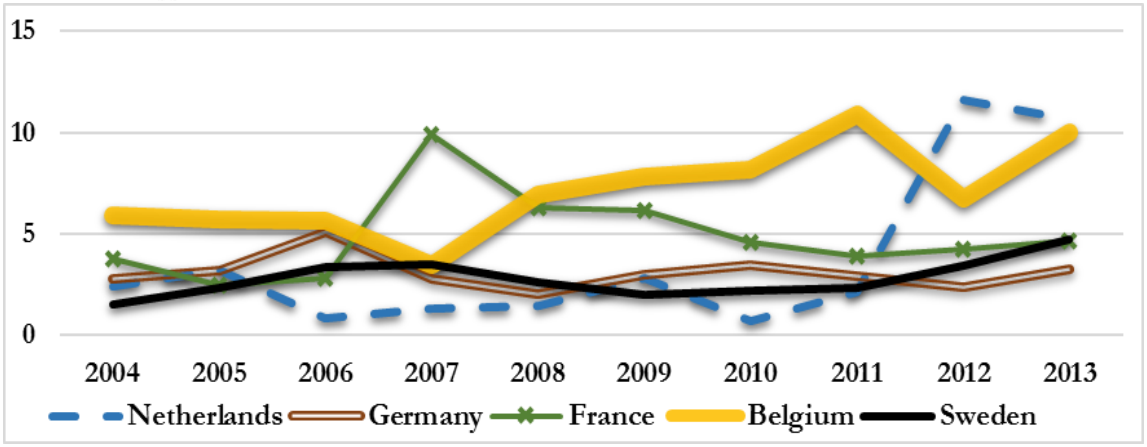


Source: ***The data are from the OECD iLibrary database***

The four other countries' ODA average support to the production sector ranges from 5.73% for Germany and Sweden to 6.93% for The Netherlands (which also has the largest standard deviation of the period, 4.88%).

Going through the subcategories reveals an interesting trend. For instance, within the production sector and whatever the five donors, the sub-category "agriculture, forestry and fishing"[44] (Table 1) plays a dominant role and this is particularly the case for Belgium (Table 1 and Figure 11).

Figure 11: *Support to Agriculture (% share of non-debt related ODA)*



Source: The data are from the OECD iLibrary database

On the other hand, there seems to be no substantial interest in the "industry, construction and mining" subsector (less than 2% on average of non-debt related ODA in all of the countries, with no significant variation around the means).

[44] Within this sub-category, agriculture represents on average a share of at least 80% during the period and in all of the selected countries.

A decomposition of ODA support to the production sector into its four components is provided in Table 2. Figure 12 illustrates this decomposition for the last three years of the period and allows one to check whether variations at the (production) sector level (Figure 10) have been accompanied by some ODA reallocation across sub-sectors.

***Table 2:** Allocation of non- debt related ODA within the production sector (in %)-2004-2013 average*

	Belgium	Netherlands	Sweden	Germany	France
Agriculture	79.84 (8.86)	59.03 (22.28)	59.39 (7.88)	67.64 (10.02)	80.61 (15.18)
Industry	15.27 (8.47)	6.26 (5.68)	**21.19 (4.66)**	**25.15 (8.90)**	13.45 (19.85)
Trade policies & regulation	**4.53 (2.12)**	**34.40 (25.02)**	19.40 (5.98)	6.09 (3.06)	0.81 (1.03)
Tourism	0.36 (0.15)	0.31 (0.53)	0.02 (0.04)	1.12 (1.11)	5.13 (10.64)
Total	**100**	**100**	**100**	**100**	**100**

Source: OECD ilibrary database
Note: the standard deviation over the period is given in parenthesis.

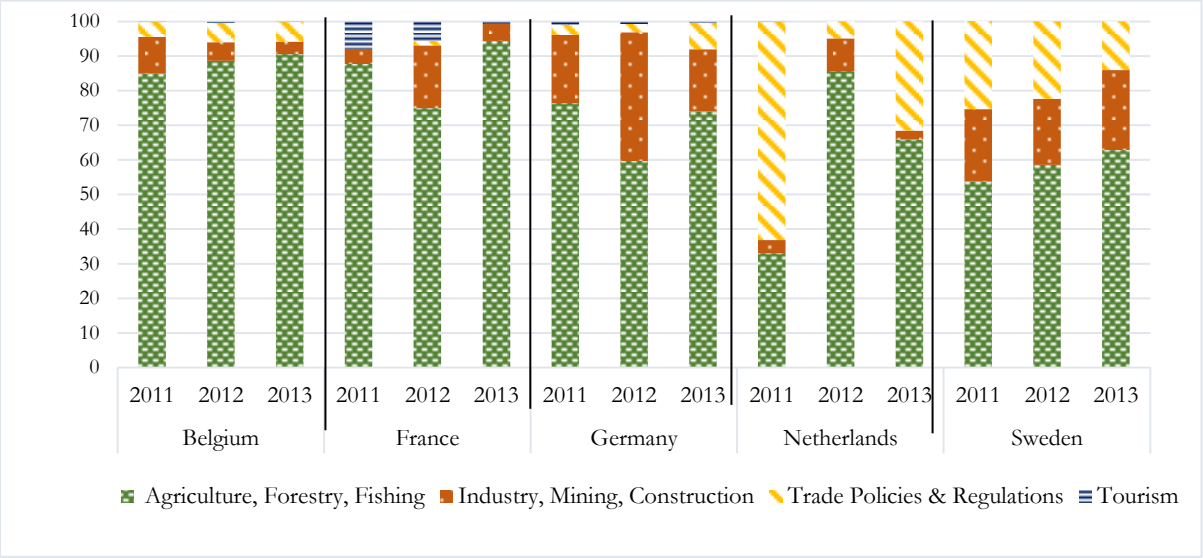
Two main facts emerge from Table 2.

- First, the decomposition of ODA support for the production sector between 2004 and 2013 confirms that agriculture is a strategic sector for the selected donor countries, especially in Belgium and France. An analysis of Belgian support to the production sector in developing countries should, therefore, give particular attention to agriculture and specifically to the instruments used in order to better assess the efficiency of the ODA support to this component.

- Second, for The Netherlands and Sweden, a significant amount of support was channeled to trade policies and regulations,[45] which is much less the case for Belgium, Germany and France.

[45] Trade policies and regulations consist of support for trade facilitation, regional trade agreements, multilateral trade negotiations and trade education or training schemes.

Figure 12: *ODA allocation within the production sector (in %)*



Source: ***OECD iLibrary database***

The sectoral ODA allocation for the production sector is provided in Figure 12 for the last three years of the period. One can note that, despite the decline in ODA support (as a percentage of non-debt related ODA) at the sector level for Belgium in 2012 (Figure 12), agriculture's relative weight has risen by about 4 percentage points (pp). However, the ODA support for industry, already a very small share in the total, fell by about half a percentage whereas the relative share of Belgium ODA support to trade policies and regulations has remained roughly constant over time. [46] The data also show that, although Belgium and Sweden have about the same economic size, they differ in how they distribute their ODA support to the production sector 2011-2013. In particular, Sweden's ODA supports relatively much more trade policies and regulations but also the sectors of industry, mining and construction. Finally, France differs from the other donors in allocating relatively more ODA to tourism.

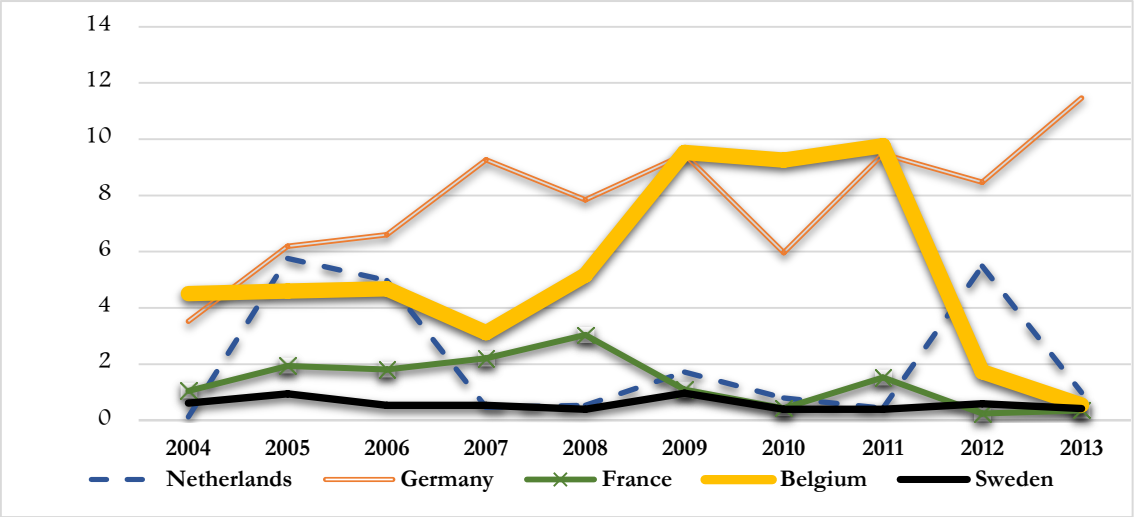
4.1.2 Economic infrastructure and services

As described in Table 1, this sector encompasses not only some economic infrastructure particularly important for business development (transport, communication, and energy, for example), but it also includes the sub-category "banking and financial services" to which a particular attention will be given in the following discussion as it is directly related to private resource mobilization and access to external financing.

The Belgian non-debt related ODA is relatively less directed over the 2004-2013 period to the economic infrastructure and services sector (8.53% on average) than is the case for the other countries except for Sweden (6.5%). Germany and France have, indeed, focused relatively more on this sector, with an average share of about respectively 25% and 16% of their non-debt related ODA.(Table 1).

[46] It is worth pointing out that the support for trade policies and regulation, although neglected by France and to a lesser extent by Belgium and Germany, has received particular attention in The Netherlands and Sweden (see Table 2). For the Netherlands, 63% of the entire ODA sector was allocated to trade policy in 2011 and about 32% in 2013; for Sweden it was, respectively, 25% and 15% (Figure 12).

Figure 13: *Support to Banking and financial services (%share in non-debt related ODA)*



Source: ***OECD iLibrary database***

The sub-category of Table 1, which is the most relevant for supporting SME access to external financing, is the banking and financial services item. Belgium has provided relatively more ODA support (5.3% of non-debt related ODA on average, with a standard deviation of 3.25% compared to the other countries (except Germany, with 7.83% of non-debt related ODA and a standard deviation of 2.29 %). Recently, however, there has been a significant drop in the Belgian support to banking and financial services: from 9.77% in 2011 to 1.74 % of non-debt related ODA in 2012 (Figure 13) while this is less the case for Germany (from 9.48% to 8.47%). In 2013, the proportion of ODA to banking and financial services has further dropped to 0.55% for Belgium. In Germany, on the contrary there was a 32% rise in 2013, leading to the highest ODA support (11.47%) to banking and financial services for the entire time period and for all of the countries considered. Still more surprising, Germany channeled 11.47% of its non-debt related ODA to banking and financial services in 2013, while all of the other countries have devoted less than 1% to this sub-sector. While this might be worrying, an alternative explanation may not imply that this sector has become neglected. In the case of Belgium, and probably in France also, the sharp drop in 2012 might have been related to changes in the OECD accounting framework with a redefinition of ODA implying that some official flows in support of the private sector would have been included in a new category ("Other Official Flows"- OOF) for some countries already, although not yet for all.[47] This accounting change could indeed have shifted a substantial part of the Belgian Development Finance agency (BIO), the activities of which are presumably recorded in the banking and financial services subsector, from ODA flows to OOF.[48]

[47] This interpretation has yet to be confirmed with OECD services.

[48] Other official flows are official sector transactions that do not meet the ODA criteria (see DAC2b on *www.stats.oecd.org under the theme development and the sub-theme OOF disbursements)*-

i.) Grants to developing countries for representational or essentially commercial purposes;

ii.) Official bilateral transactions intended to promote development but having a grant element of less than 25%;

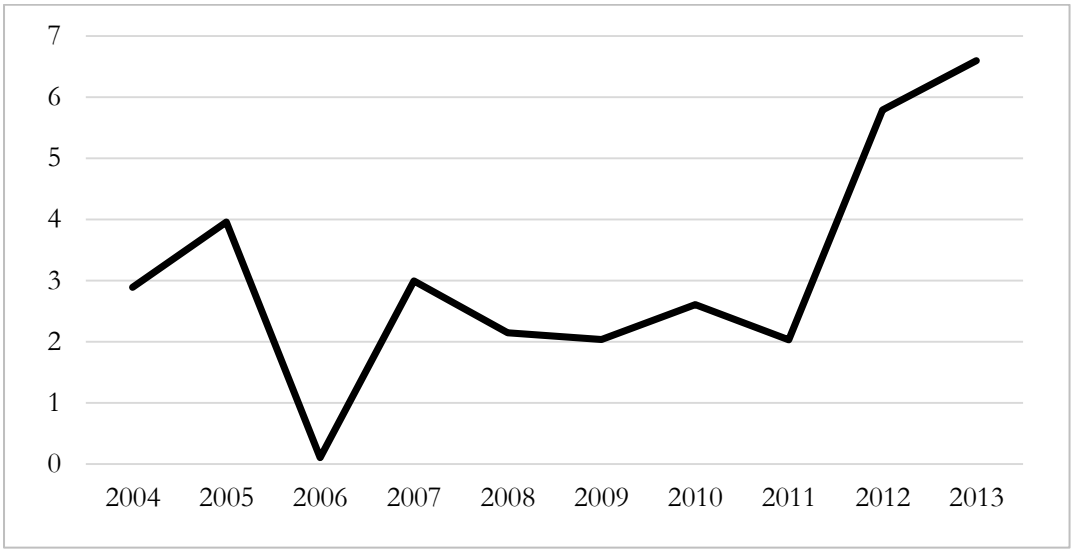
iii.) Official bilateral transactions, whatever their grant element, that are primarily export-facilitating in purpose. This category includes by definition export credits extended directly to an aid recipient by an official agency or institution ("official direct export credits");

iv.) The net acquisition by governments and central monetary institutions of securities issued by multilateral development banks at market terms;

v.) Subsidies (grants) to the private sector to soften its credit burden as regards developing countries

vi.) Funds in support of private investment.

Figure 14: *DGD's OOFs (Other Official Flows) through BIO in % of the Belgian total non-debt related ODA*



Source: The OECD iLibrary database (for the non-debt related ODA); the OOF data are from the DGD database

Figure 14 lends credit to this interpretation. Indeed, it suggests that BIO's OOF activities have more than doubled, when expressed in percentage of non-debt related ODA from 2011 to 2012, and further rose in 2013. Starting from 2012 (the year of the change in ODA-OOF accounting), the proportion of BIO's OOF (in % of non-debt-related ODA) has in fact been significantly higher than before.

A decomposition of ODA support to the "economic infrastructure and services" sector in its five components is provided in Table 3 (average over the period 2004-2013) and in Figure 15. On average, between 2004-2013, for a euro of ODA channeled to the economic infrastructure and services sector, about half (50 cents) was allocated to "banking and financial services" by Belgium (Table 3) while the support was significantly lower for other countries (The Netherlands, Sweden and France). Note that there is, however, significant variation over time (see standard deviations in Table 3). Within its support for "economic infrastructures and services", Belgium could be seen to be supporting more intensively "banking and financial services" than is the case for Germany (32 cents per 1 euro for Germany). This may indicate some Belgian priority, even if one needs to take into account that Germany devotes on the whole a larger part of its non-debt related ODA to this subsector (7.83 % versus 5.30 % on average over the period: see Table 1).

Table 3: *Allocation of non-debt related ODA within the "economic infrastructures and services" sector (in %) 2004-2013 averages*

	Belgium	Netherlands	Sweden	Germany	France
Transport & Storage	26.74 (10.57)	5.29 (6.37)	20.63 (8.65)	9.74 (5.6)	60.50 (13.06)
Communications	5.24 (5.02)	3.00 (2.38)	3.89 (2.77)	0.75 (0.58)	2.08 (2.62)
Energy	15.47 (14.98)	26.33 (18.13)	29.85 (6.86)	48.59 (8.86)	24.91 (17.86)
Banking & Financial Services	50.37 (14.66)	26.11 (27.22)	9.60 (2.86)	32.59 (10.24)	10.31 (6.48)
Business & Other Services	2.18 (2.22)	39.27 (29.16)	36.03 (13.86)	8.33 (1.65)	2.19 (3.21)
Total	100	100	100	100	100

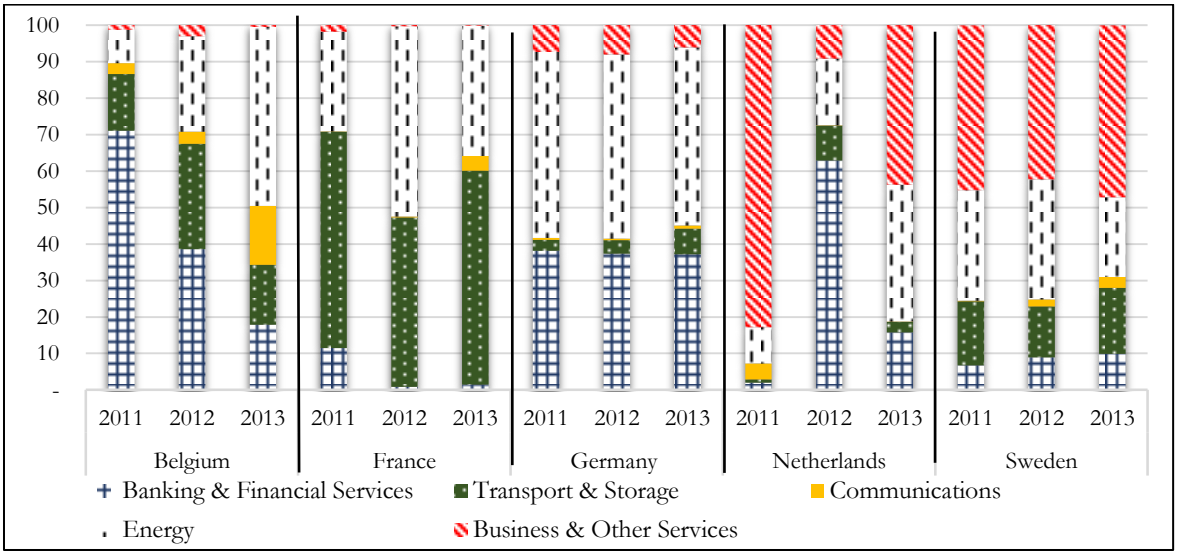
Source: *OECD iLibrary database*

Note: The average standard deviation over the period is given in parenthesis)

Another illustration of the within-sector ODA allocation is provided in Figure 15 with a focus on each of the three last years of the period of analysis. Its interest stems from it being better able to indicate the priority or strategic sub-sectors, specifically in as regards the sub-sector of banking and financial services. In 2011, 70% of the sector's ODA for Belgium were allocated to "banking and financial services", although this share declined significantly over the following years (see discussion of Figure 13 above) to the benefit of the "energy and communication" sub-sector (Figure 15).

For The Netherlands and Sweden, the "business and other services" sub-sector seems to have attracted particular attention. For France, energy and transport are strategic subsectors while for Germany, it is rather banking and financial services and energy.

Figure 15: *Intra -sectoral allocation of ODA in economic infrastructure and services (%)*



Source: *OECD iLibrary database*

4.2 Belgian private sector support (PSS) in developing countries: a comparative approach

This section will first compare the performance of the main Belgian development actors (BDA) in implementing their activities as regards the financing of PSS in the beneficiary countries. We focus on four DFIs. Second, the specific financial instruments used by the Belgian DFI to finance businesses (in particular SMEs) will be reviewed. We use the DGD database and data concerning the selected DFIs' investment portfolios.

4.2.1 The Belgian operators of ODA

The Belgian ODA is funded by two main types of budget lines:

- The ODA budget of DGD, which is in charge of the Belgian overall development cooperation)
- Other ODA budgetary sources, which originate mainly in SPF[49] Finance, SPF Foreign Affairs, the Regions, and the municipalities.

Table 4: *Belgium ODA and PSS, 2001-2013 (EUR Billion)*

Billion EUR	DGD-ODA budget	Other ODA budgets	Total
Private sector support (inclusive of allocation to BIO)	1.8	0.2	2.0
Support for other development cooperation activities (1)	10.6	8.1	18.7
Total	**12.4**	**8.3** (2)	**20.7**

Source: DGD database

Notes: 1. "Support for other development cooperation activities" includes humanitarian aid, water and sanitation, health, energy, education, and government budget support. See details in Appendices 1-5.

2. Appendix 5 provides more details on "Other ODA budgets".

The DGD database identifies four broad categories of "ODA operators": non-governmental organizations (NGOs), the Belgian investment companies in developing countries (BIO), Belgian Technical Cooperation (BTC), [50] the DGD itself, and other institutions (including universities, federal agencies, the Regions, and municipalities). While some of the projects implemented by these operators target PSS directly, most of the financing goes to other development projects in areas such as health, education, water and sanitation, and humanitarian aid.). In this framework, we focus only on PSS projects.

From 2001 to 2013, Belgium spent EUR 20.7 billion in ODA[51] of which EUR 12.4 billion (about 60%) were provided by the DGD-ODA budget line and the remaining was financed by the other ODA budget lines (Table 4). Given the classifications used in the DGD database, we assume that the private sector is to be understood as ODA spending on projects in the following four different specific sub-sectors:

- Agriculture,
- Industry (of which SME development is an identified sub-sub-sector),
- Official support to informal and semi-formal financial intermediaries,
- Official support to formal financial intermediaries.

[49] Service Public Fédéral.
[50] The Belgian Development Agency
[51] This includes the cost of debt-reduction operations.

As shown in Table 4, during the period 2001-2013, less than 10% (9.66%) of the Belgian total ODA went to PSS in developing countries.

Table 5: *Overview of DGD funded ODA (2001-2013) for PSS: Allocation across operators.*

Million EUR	BIO	BTC	DGD	NGOs (177)	Other operators[b]	Total
Agriculture and livestock	0	209	2	333	407	**951**
Industry (of which SME Development)	11 (9)	16 (10)	0 (0)	8 (5)	46 (4)	**81** (29)
Informal and Semi-formal intermediaries sector/Microcredit	3	17	0	31	2	**53**
Formal financial intermediaries	0	-	5	-	151	**156**
Allocation to BIO[a]	598	-	-	-	-	**598**
Total	**612**	**242**	**7**	**372**	**606**	**1839**

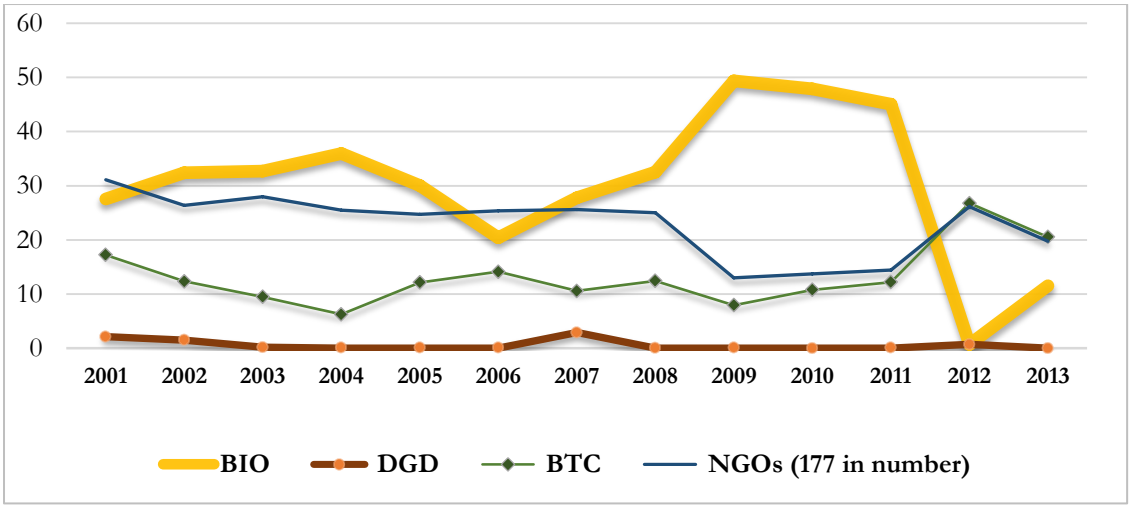
Source: DGD database

Notes a. *DGD allocation flows to BIO as part of the Belgian ODA.*

b. Multilateral international organizations, universities, municipalities, etc.

The allocation of ODA to PSS across financing sources (that is, the two main budget lines described above) and operators (BIO, BTC, DGD NGOs and other operators) is provided in Tables 5 and 6. As shown in Table 4 and detailed in Table 5, 90% (1.8 billion) of the total ODA to the PSS in developing countries implemented by the various operators came from the DGD budget. Hence, the DGD-ODA budget is the main Belgian source of ODA funding for PSS in developing. This support amounts to about 15% of the DGD total ODA budget line. In terms of operators, taking the DGD financing flows (allocation) to BIO into account (Table 5), BIO appears, not surprisingly, as the main operator for financing private-sector support (Figure 16) during the period (slightly more than a third of the total ODA devoted to PSS from the DGD budget line). However, BIO is closely followed by NGOs of which a total 177 have been involved over the 10-year period. They implemented about 20% of the ODA support to the private sector funded by the DGD budget. Then comes the BTC and, to a lesser extent, the DGD. The DGD involvement as a direct ODA operator for PSS is, in fact, close to being negligible (Figure 16).

Figure 16: *Operator's share in PSS financing (% of DGD-ODA budget dedicated for PSS)*



Source: DGD Database 2001-2013

It is important to note that the DGD allocations to BIO are considered as ODA, but these allocations are also used to fund BIO's non-concessional activities in favor of the private sector.

Table 6*: Non-DGD funded ODA (2001-2013) for PSS: Allocation across operators*

Million EUR	BIO	BTC	DGD	NGOs (107)	Others Operators	Total
Agriculture and livestock	-	-	-	10	46	**56**
Industry (Of which SME Development)	-	-	-	1	29	**30**
Semi-formal intermediaries sector/Microcredit	2	-	-	1	1	**4**
Formal financial intermediaries	-	-	-	-	78	**78**
Total	**2**	**0**	**0**	**12**	**154**	**168**

Source: DGD database

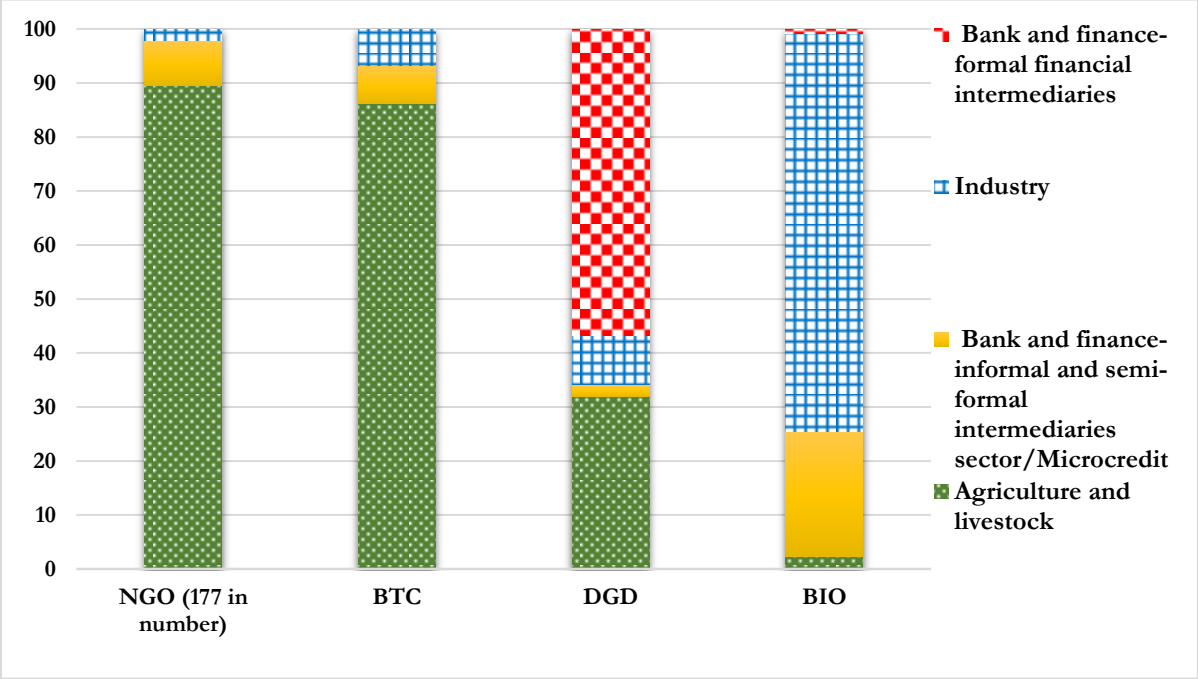
Concerning PSS funded by the Non-DGD ODA (Table 6), the key information is that only NGOs are active as operators in supporting the private sector among the four selected operators. The Column "other operators" includes the projects implemented either directly by the Belgian provinces, municipalities and federal agencies or via private consultants. It also includes Belgian ODA contributions to multilateral organizations (IMF, IADB, ADB, AfDB, FAO, etc.). The EUR 2 million appearing in the Table for BIO represent a capital subscription by the SPF Finance in BIO.

We turn now to the different components of the PSS and how ODA is allocated at each operator level. Figure 17 illustrates the extent to which each operator is involved in supporting the different components of the private sector using the DGD ODA budget line.[52] Among the four operators considered, NGOs and the BTC are by far the most involved in supporting agriculture and livestock (Figure 12 and Figure

[52] Some details on the types of projects funded by each operator are provided in appendix (Appendix 1-4)

13). NGOs actually spend roughly 90% of their total PSS ODA in agriculture (this amounts to about 18.7% of their total ODA spending). For BTC it is about 85% (8.36% of the BTC's total ODA spending). BIO is, relatively, more active in industry (SME development) and support to informal and semi-formal financial intermediaries. Note that the different supports to the private sector (and other sectors) are implemented through projects. Some details regarding the projects related to the support of *informal and semi-formal financial intermediaries* are provided in Appendices1 to 5. For example, during the period (2001-2013), the biggest program (aggregated over different sub-projects) supporting *informal and semi-formal financial intermediaries* implemented by NGOs[53] is entitled "*better access to financial services for partners*". It included 15 projects of an average size of EUR 430 740 and targeted eight countries (see Appendix 3). It was followed by a program of EUR 3.16 million in Senegal entitled *"Senegal VII-Ferlo/Mutuelle d'épargne et de credit"* implemented by the NGO AQUADEV.

Figure 17: *Sectoral allocation of PSS funded by DGD ODA for selected operators (% of respective 2001-2013 total)*



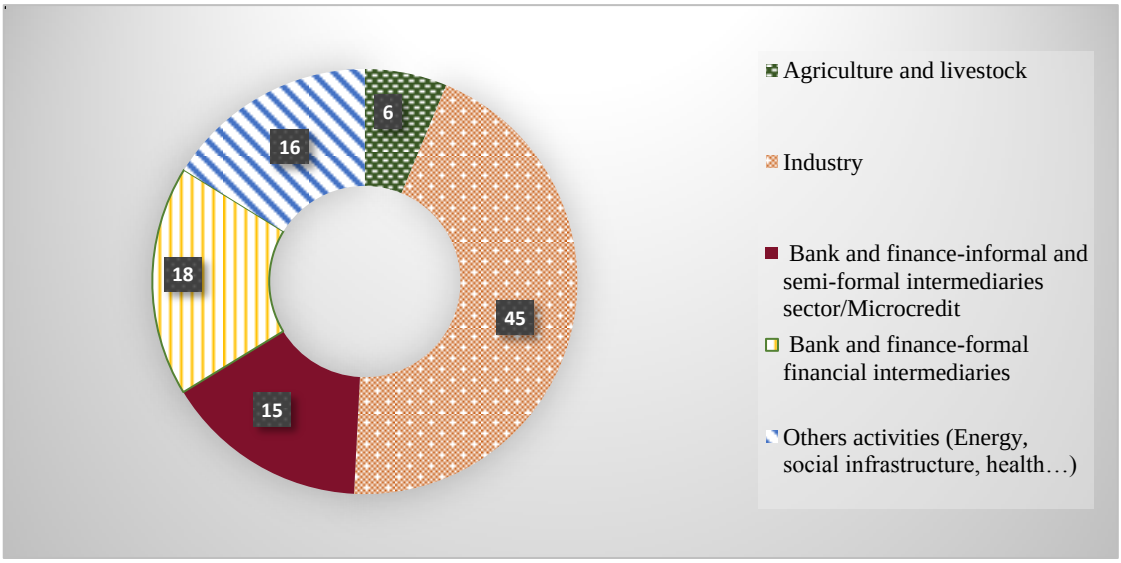
Source: *DGD Database 2001-2013*.

Figure17 indicates that BIO spends for PSS in industry, microcredit, and formal finance respectively 73.67%, 23.11% and 0.84% in form of ODA (allocation to BIO in table 5 not included). It is important to point out here that most of BIO's non-concessional activities (loans with less than 25% grant components and activities not meeting ODA's criteria) were shifted to OOFs, which are not taken into account here as opposed to the other operators. So reported in Figure 17 only show how BIO allocates spending on technical assistance and subsidy for feasibility studies (the main BIOs concessional activities) to firms and financial intermediaries in each of the above mentioned sectors. Further details on BIO's activities in supporting the private sector are provided in Figure 18 and Table 7 where non-concessional financial flows of BIO are also taken in account. Those flows are, indeed, much more important than the concessional ones (EUR 413 million versus EUR 14 million over the 2001-2013 period).

[53] The NGO that operated those projects is "SOS Faim".

Figure 18 displays BIO's global priorities for PSS over the 2001-2013 period. It appears that BIO has been much more involved in SME development and support to financial intermediaries in developing countries than directly supporting agriculture.

Figure 18: *BIO's total OOF allocation (%), (aggregate flows 2001-2013)*



Source: *The DGD database 2001-2013*
Notes: *Industry share: of the 45%, 40.7 percentage points (90.52% of total OOF to industry) are allocated to SME development.*

Pursuing the analysis of BIO's non-concessional and concessional funding, it is interesting to see how it allocates its funding for PSS across different financial instruments and beneficiaries. We focus on its interventions in DGD's 16 privileged partner countries referred to in Section 2.3.

Table 7 illustrates BIO's support to the private sector in the 16 privileged partner countries across both beneficiaries and financial instruments. A given cell reports the probability that any euro spent by BIO during 2002-2014 has funded the beneficiary given in the columns (a commercial bank, an enterprise, an MFI Fund) through the instrument given in the rows (through debt financing, equity capital, etc.).

We see that more than one euro out of two (56.95% of the BIO's total investments outflow) spent during the period was used in debt instruments, the second most used instrument being equity (41.68%). Equity financing to SME Funds, a type of indirect enterprise financing, accounts for close to a quarter (23.37%) of BIO's total financial support. Debt financing of commercial banks is the second most important instrument/beneficiary combination (16.29%).

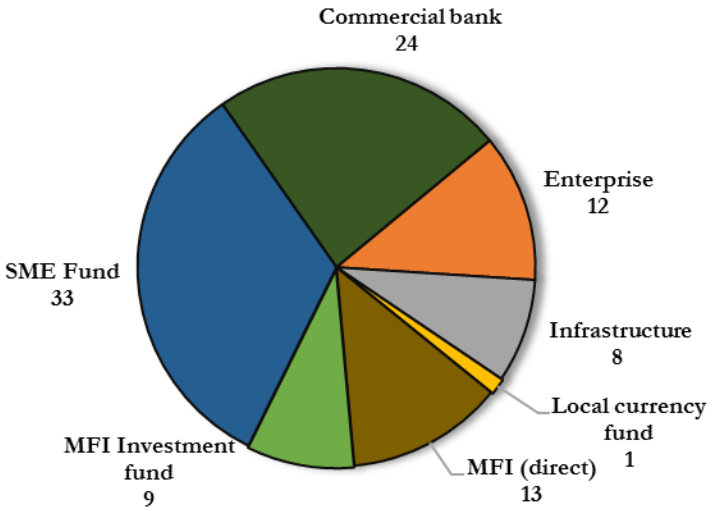
Table 7: *Distribution of BIO's total financial support across beneficiaries and financial instruments, 2002-2014 (DGD16 main partner countries)*

	Commercial banks	Enterprises	MFI Funds	MFIs	SME Funds	Infra-structure	Local Currency funds	Total
Debt (%)	16.29	11.21	4.7	6.51	9.56	8.45	0.22	**56.95**
Equity (%)	7.3	0	3.9	6.03	23.37	0	1.09	**41.68**
Technical assistance (%)	0.14	0.23	0.21	0.21	0.04	0	0.04	**0.87**
Subsidy (%)	0	0.55	0	0	0	0	0	**0.55**
Total (%)	**23.73**	**11.99**	**8.8**	**12.74**	**32.96**	**8.45**	**1.35**	100

Source: Data are from BIO's portfolio for the DGD 16 main partner countries (2002-2014).

Two characteristics also stand out when we look only at the beneficiaries: BIO's funding was likely to go to SME funds and commercial banks (respectively 32.96% and 23.73% of the total funding during the period). Enterprises and MFIs were respectively allocated about 12% of BIO's direct financing (see Figure 17 below). Also, debt financing mainly involved banks (the likelihood of 1 euro debt financing going to banks is 29%), and equity financing involved SME funds (the likelihood of 1 euro equity financing going to SMEs is 56%).

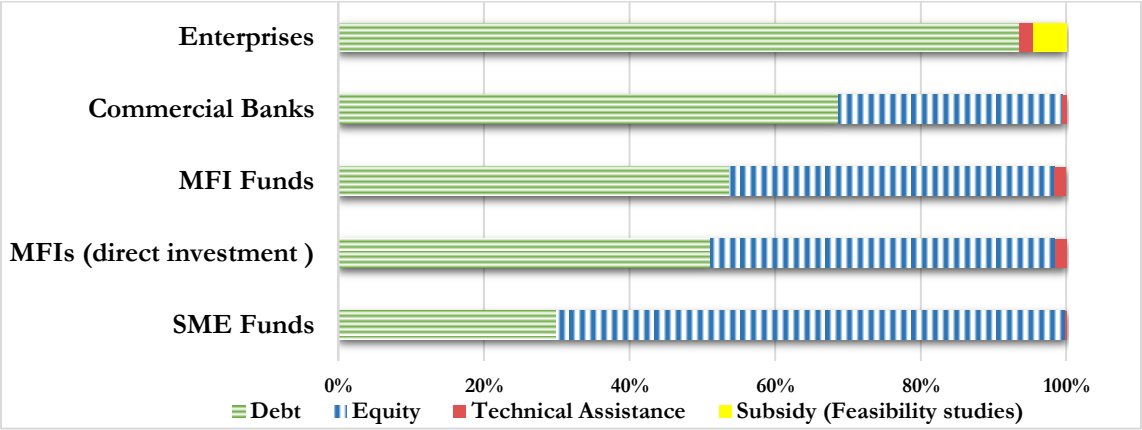
Figure 19: *BIO's financial support across beneficiary sectors (% of 2002-2014 aggregate flows)*



Source: The data are from BIO's portfolio (total amount invested in projects, including both concessional and non-concessional activities) for the 16 main partner countries (2002-2014).

Enterprises have not benefited at all from direct equity support from BIO. In terms of equity support, BIO is strengthening SME Funds (financial intermediaries) and to a very small extent, directly the firms themselves (Figure 20).

Figure 20: *BIO's funding modalities (financial instruments) per beneficiary*



***Source**: Data are from BIO's portfolio for the DGD 16 main partner countries (2002-2014)*

From the perspective of financing modalities per beneficiary (Figure 20), we note that direct support to firms is essentially made via debt financing (about 93% of their total financing from BIO), and no equity is provided directly to them. On the contrary, SME Funds that provide indirect financing to enterprises are mainly funded by BIO through equity direct financing of MFIs, and about half of the MFI Funds is in the form of debt and half in the form of equity. Hence, a thorough assessment of a Belgian financial inclusion policy for MSMEs' in developing countries should include an analysis of how the SME and MFI Funds in which BIO invests as a shareholder operate to finance MSMEs.

As noted in Section 2 of this paper, a firm's access to external financing also depends on its managers' ability to discuss with financial institutions and convince them of their projects and their management abilities. For this, technical assistance (TA) is essential for capacity building and management-skill development. A lack of those skills and of corporate finance knowledge (financial literacy, for example) further limits their access to external financing. Beyond providing external financing, BIO also addresses these crucial issues by providing technical assistance and subsidies for feasibility studies to its beneficiaries in developing countries. As shown in Table 7, however, BIO's technical support to SMEs represents less than 1% of its total funding for the 16 DGD main partner countries, and each beneficiary received less than 2% of its total support from BIO in the form of TA during the period.

4.2.2 Different types of instruments used and their relative importance in DFI support

Following the previous description of BIO with respect to PSS, this section compares BIO with the DFIs of the four other selected comparison countries (The Netherlands, Sweden, France and Germany). The comparison focuses on the different types of instruments used and their relative importance for the DFIs.

Table 8: *BIO and other DFIs' use of the different financial instruments*

		Belgium	Netherlands	Sweden	France	Germany	
		BIO	FMO	SWEDFUND	PROPARCO	KfW	DEG
LOANS	*Senior loan*	✓	✓		✓	✓	✓
	Subordinated loan	✓	✓	✓	✓		✓
	Convertible loan	✓	✓	✓	✓		
GRANTS	*Technical assistance*	?	✓		✓	✓	✓
	Interest subsidy					✓	
EQUITY	*Direct investment*						
	Portfolio investment	✓	✓	✓	✓		
	Investment in private equity funds	?	✓	✓	✓		✓
GUARANTEE	-	✓ ?	✓		✓		✓

Source: *Adapted from Eurodad (2014), p.42.*

Table 8 provides an overview of the available financial instruments used for the five DFIs according to a detailed report by *Eurodad (Eurodad 2014)*. We note the following:

- Except for the case of KFW, the DFIs used similar financial instruments: loans with different levels of risk (Swefund even takes relatively more risks as it excludes senior loans), grants, equity and guarantees (except for Swefund and BIO). FMO and Proparco are the most active in terms of the number of the financial instruments used. Note also that none of the DFIs directly implement direct equity investment in SMEs

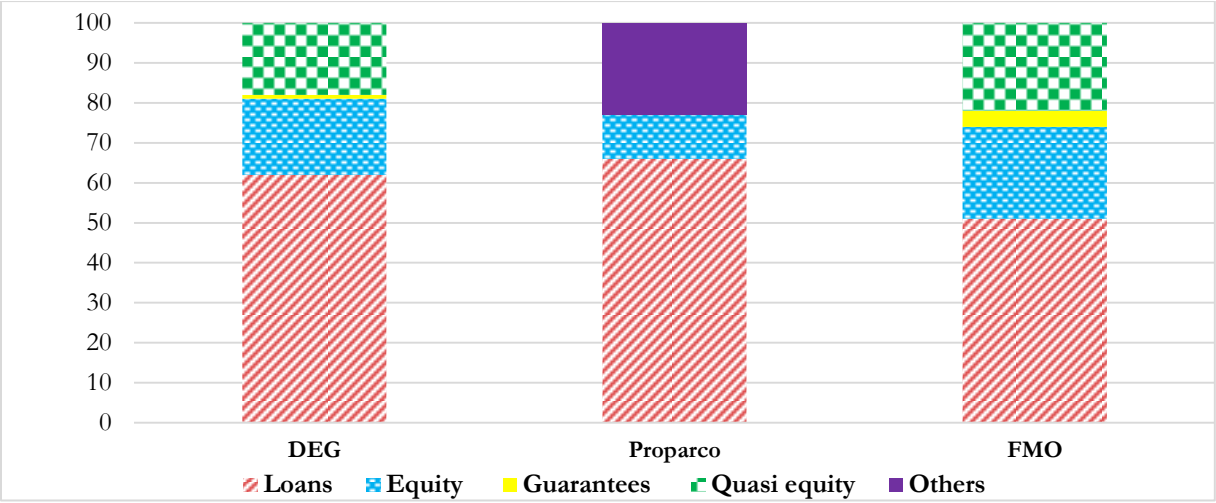
- A comparison of the major DFIs in terms of the number of instruments used (FMO and Proparco) with BIO shows that the former use all the instruments BIO uses but are also active in some areas (technical assistance, investment in private equity and guarantees) in which it is not clear whether or not BIO is active.[54]

Considering now the extent to which the different instruments are used by the DFIs, loans appear as the major part of DFI's investment portfolio: about 60% for DEG[55] and 66% and 51% for Proparco and FMO, respectively (Figures 21 & 22). It can be expected that these relative shares remain fairly constant over time as the case of FMO illustrates in Figure 22.

[54] The Eurodad report actually mentions no use of technical assistance and investment in private equity funds by BIO although Table 7 indicates that some TA provision has been recorded for the 16 main partner countries. This is confirmed in another paper by Huise & Vaes (2015), p. 42, who reported that BIO also uses guarantees and subsidies for technical assistance.

[55] *Deutsche Investitions- und Entwicklungsgesellschaft*, is a German DFI – a subsidiary of KfW – specialized in SME support.

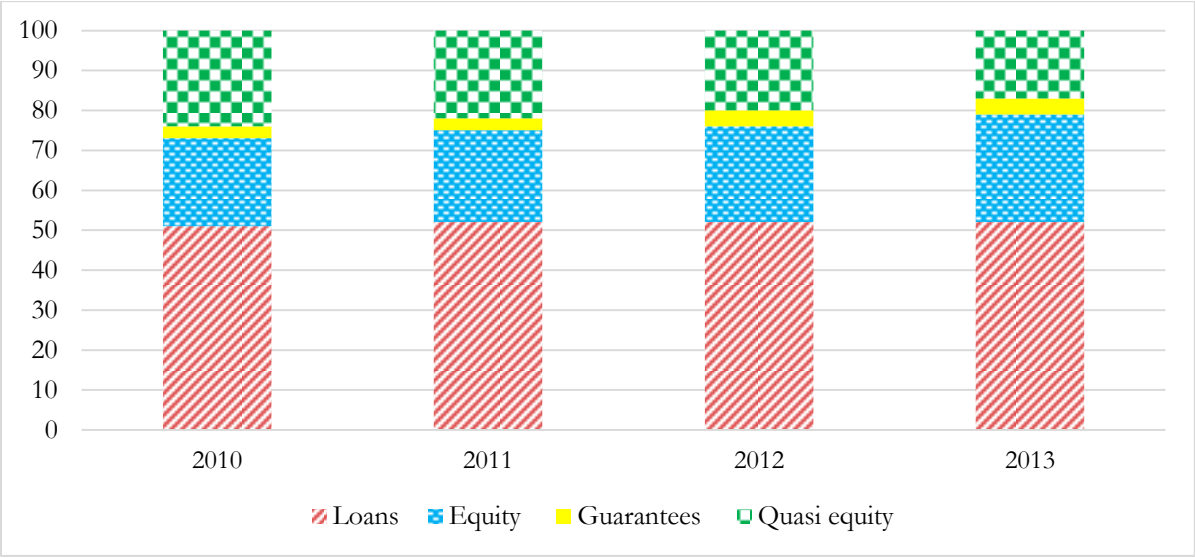
Figure 21: *Share of each instrument in some selected DFIs committed DFIs Portfolio (% of total new commitments 2008-2012)*



Source*: DFIs' annual reports and Eurodad (2014).*

Note: *Proparco's figures on loans include guarantees, and "others" include Agence Française de Développement (AFD)'s sub participation to Proparco (which allows Porparco to extend its lending capacities, offering more loans and participating in larger projects), Porparco's third-party loans (loans on the behalf of third parties) and loans to French Overseas Territories.*

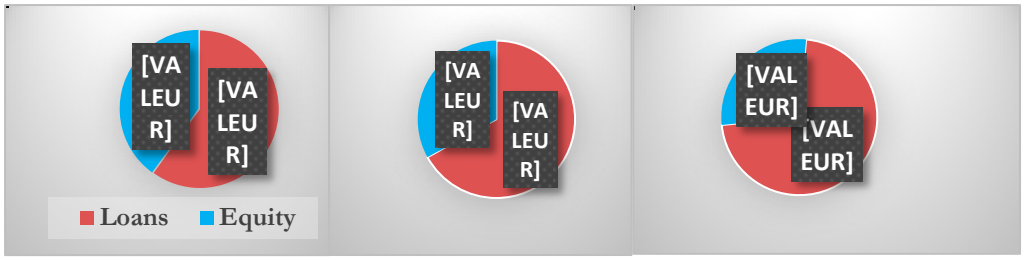
Figure 22: *Evolution of FMOs' committed investments portfolio by instrument*



Source: FMOs' annual reports and the Eurodad factsheet of FMO.

Figure 23 sketches the structure of BIO's investment portfolio (end-of-period investments amounts on balance sheets). It shows that the reported investments were made essentially through loans and equity. Note that BIO's support for feasibility studies and technical assistance (see above) are not included in this Figure (which only reports outstanding balance sheet positions).

Figure 23: *BIO's outstanding investment per instrument as of 31.12*

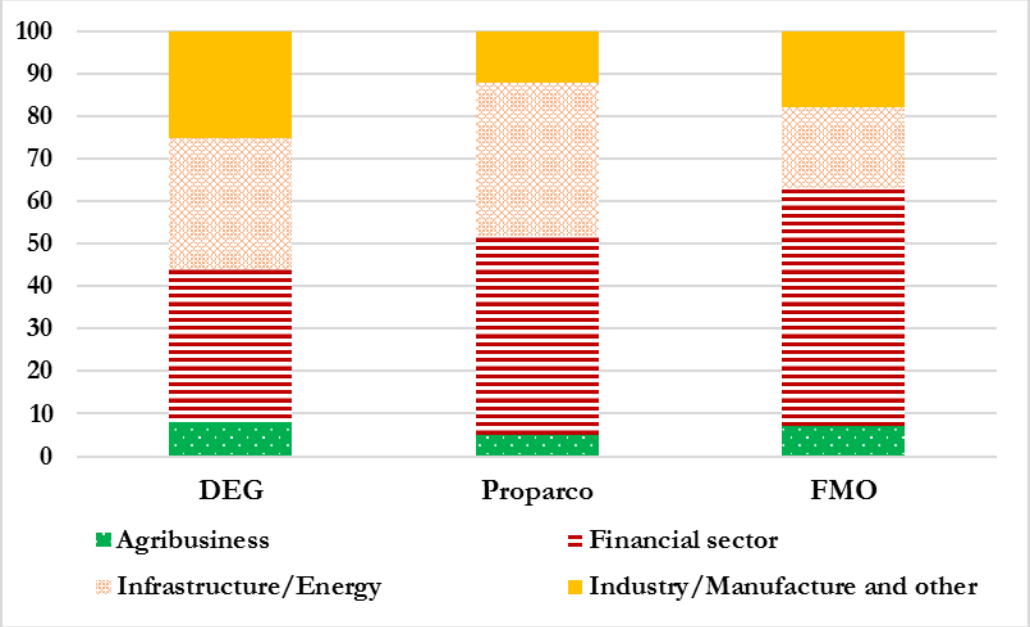


Source: *BIO's annual reports.*

Overall, unlike FMO, BIO's investment portfolio composition by instrument seems less stable over the three years considered and relatively more based on debt instruments. BIO's share of debt-instrument investment has actually increased from 60% in 2011 to 72% in 2013 (Figure 23) at the expense of equity investments.

We turn now to the main private sector beneficiaries of DFIs' investments, with beneficiaries again defined as in Section 4.2.1 from a functional perspective. The only major difference is that there is no longer a distinction made between official, formal or semi-formal financial intermediaries. Infrastructure and the energy sector are also reported as additional sectors for the financing activities that DFIs are involved in.

Figure 24: *DFI's investment by sector, 2012.*



Source: *DFIs' annual reports and Eurodad's 2014 'How DFIs work?' P.28.*

The committed portfolios at the end of 2012 (Figure 24) of the selected DFIs show that the financial sector has been the main focus of those DFIs' investment policy. About half of the selected DFIs'

portfolio is actually channeled to the financial sector (except for DEG for which the sectorial allocation is more balanced). This holds for BIO the investment policy of which is even more oriented towards the financial sector (33% of the total amount invested in all sectors over the period 2001-2013, Figure 18). Moreover, there is little scope for agriculture support (less than 10% of each DFI's portfolio), which suggests a lack of appropriate financial instruments to support this sector even though it involves a major of the active population in developing countries.[56]

5. Welfare impacts of supporting MSMEs

Although the market-failure arguments presented in Section 3 support public interventions to alleviate various constraints facing MSMEs, there is debate about the efficiency of these interventions. The literature on this debate can be structured in two broad categories. First, there are the studies that focus on the comparison of the welfare impact of MSMEs versus large firms irrespective of whether any of these firms have benefited from interventions. Second, there are studies that evaluate the welfare impacts of public intervention on MSMEs. In both cases, the analysis relies on similar welfare indicators, which include employment, wages, sales and profit, and productivity. The rest of section summarizes the main findings in these two strands of literature and discusses the implications for policy actions particularly in the context of development cooperation.

5.1 MSMEs versus large firms

The central issue of discussion here is whether policy support should target SMEs or all firms including the larger ones. For this purpose, the literature compares the welfare impacts of SMEs versus larger firms. A robust finding from that literature is that SMEs are an important driver of new job creation in both rich and LICs (e.g., Liedholm and Mead, 1999, OECD, 2007a). For instance, Ayyagari et al. (2011), analyzing data on firms operating in the formal sector from 104 developing and developed countries, claim that small firms (5-19 workers) account for about 50% of newly job creation and, this figure increases to 75% when, SMEs (5-99 workers) are included. Moreover, when analysis focuses on LICs, these figures are larger: 58% and 89%, respectively.

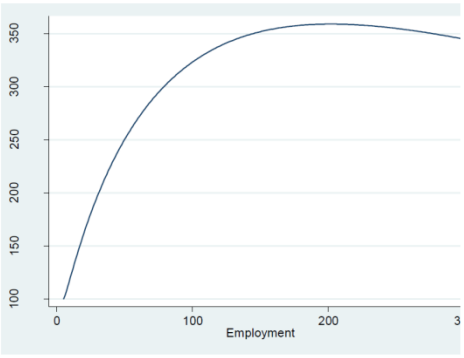
This conclusion is, however, challenged in the literature. For instance, Page and Söderbom (2012) observe that, although the conclusion that SMEs are more responsible for newly created jobs cannot be denied, this category of firms is also the primary sources of job destruction because of their relatively high failure rate. As such, these authors propose that the discussion should focus on net job creation instead of the gross figures of newly created jobs. One challenge here is the availability of panel data that contains information on firms' activities over time. Page and Söderbom (2012) recently analyzed such data from Ethiopia and found no statistical difference on net job creation between small and large firms over the 1995-2007 period. However, they also show that larger firms are more productive than smaller firms, primarily because the former are more capital intensive. As a consequence, Page and Söderbom (2012) argue that, for workers with the same characteristics and similar job qualifications, large firms pay higher wages than do small firms (see Figure 25). A similar finding is reported in studies not only on other developing countries but also on advanced countries (e.g., Biggs, 2002 and Teal, 2010).

[56] 70 percent of the world's poor live in rural areas and agriculture is their main source of income and employment. About 70% of the population in the Least Developed Countries live in rural areas, 63% in Sub-Saharan Africa (World Bank Indicators, 2013). A sound policy support for agriculture and its industrialization is critical for sparking inclusive growth. As mentioned above in 4.1.1 (see Figure 17), the largest part of the DGD-ODA budget dedicated to PSS targets agriculture. The problem is thus not about insufficient attention being given to the agricultural sector, but the question of its specific handicaps in gaining access to appropriate financing obviously remains important and needs to be investigated further.

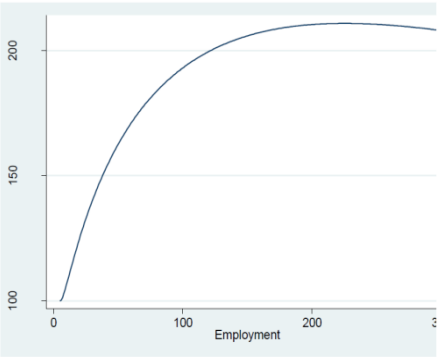
On a related point, earlier contributions from case studies in twelve developing countries (Botswana, Guinea, Jamaica, Kenya, Lesotho, Malawi, Niger, Nigeria, South Africa, Swaziland, Zimbabwe, and the Dominican Republic) in the 1990s show only that only 1% of MSEs displayed strong growth performance and could graduate to the medium size status (Liedholm and Mead, 1999). However, those graduate firms accounted for 25% of the new job creation. As a result, the authors suggest that donor interventions aiming to promote economic growth should focus on those firms. On the other hand, they advocate that support aiming at poverty reduction be channeled to the survival of non-growing MSEs (i.e., very small family enterprises).

Figure 25: *Capital Intensity and Wage in African Firms according to Size*

Capital intensity and firm size



Average wages and firm size



Source: *Page and Söderbom (2012), P.29-30*

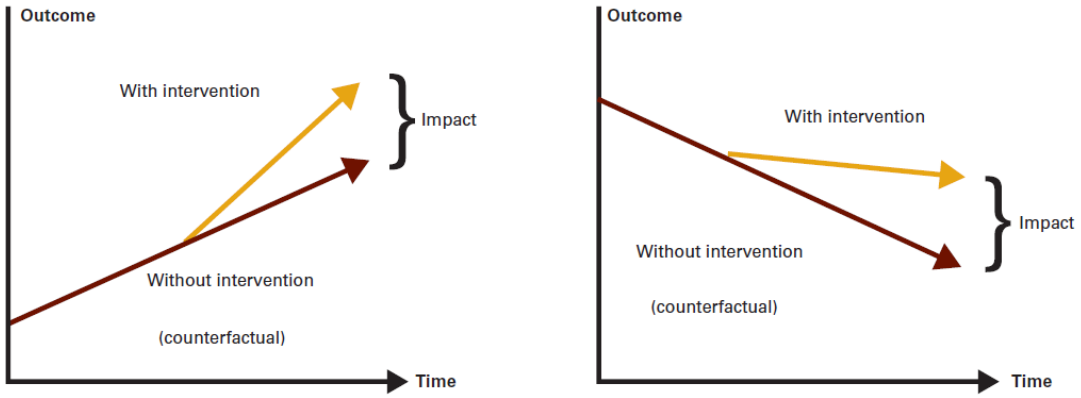
NB: Capital intensity is measured as the firm's ratio of working and fixed capital over total employment.

5.2 Assessing the effects of public interventions on SMEs

5.2.1 Methodological issues

The main goal of the impact evaluations is to provide a quantitative assessment of the welfare impacts of public interventions on MSMEs. One difficulty in any impact evaluation exercise is the identification of the counterfactual scenario, i.e., what would have happened without public intervention (e.g. OECD, 2007b, López-Acevedo and Tan, 2011, Storey, 2000)? Figure 26 illustrates two such cases. For instance, the left (right) panel shows a situation where MSME performance is improving (deteriorating) without any intervention but where we also see that intervention accelerates MSME performance (mitigates its decline). The objective of well-designed impact evaluation analyses is to disentangle these two effects.

Figure 26: *Welfare impact with and without MSME public intervention*

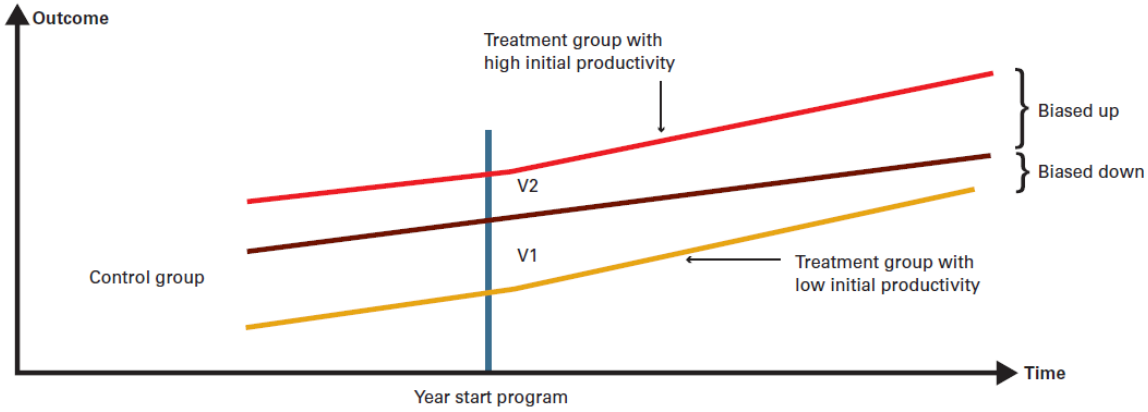


Source: *López-Acevedo and Tan (2011)*

One solution to this identification problem is to define a control group of MSMEs that are similar to those of the treated MSMEs group. However, this solution is not without cost because one needs to analyze how MSMEs are selected in function of both observable and non-observable characteristics. For instance, if better performing SMEs are attracted to or, selected for, donor-intervention programs then one may not be able to disentangle the effect of the programs from the initial performance advantage of the treated group: see Figure 27 for an illustration of this selection bias issue.[57] The literature has proposed various empirical strategies to deal with this issue [e.g., through Random Control Trials (RCTs); see Banerjee et al (2015a) for a recent impact study based on this methodology and relating to the effects of microcredit group lending on investment and profits of preexisting small businesses and household well-being.]

[57] Note that this selection bias is a recurrent difficulty for many standard policy evaluation procedures which focus on achieved outcomes by the policy intervention. Typically the procedure relies on attributing scores based on the extent expected outcomes have actually been achieved. Assessment focuses on a multiplicity of indicators for each expected outcome and is translated into qualitative scores which can be aggregated at different levels. This type of method seems to be commonly used by DFI's for evaluating ex ante as well as ex post the development impact of their projected/realized investments (see SPF Affaires étrangères 2012, pp. 48-51), which reports that BIO and other DFIs rely on the GPR method - Corporate Policy Project Rating- elaborated by DEG for both ex ante and ex post project evaluations). While it might be a useful method for project rating and selection, it is much more debatable whether it is able, given the inherent selection bias, to accurately assess the actual impact of the interventions.

Figure 27: *Selection bias issues in impact evaluation*



Source: *López-Acevedo and Tan (2011)*

Another issue with impact evaluations is the difficulty to isolate the mechanisms through which different instruments affect outcomes targeted by public intervention. This is particularly the case for MSMEs in LICs as they face a multiplicity of obstacles, as discussed above in Section 2.1, access to finance being only one of them. Supporting firms by improving their access to financing through one or the other instruments discussed above may then have very different effects, depending on the specific context in which the firms evolve and the severity of any other constraint they face. Conclusions of impact studies of a particular instrument in one country for one specific type or firm over a given period can, therefore, be generalized only with great care, if at all. This issue of "external validity" is a particularly challenging one, for both academic research and policy formulation (see Fisher and Karlan, 2015 for an enlightening discussion).

5.2.2 Findings from impact evaluation of MSME support

Impact evaluations of MSME support have produced mixed results. In particular, the interventions in developing countries sponsored by the World Bank and IFC point to very little positive impact (for a review see Batra and Syed Mahmood, 2003). However, these studies have been criticized on methodological grounds especially because the control groups had not been systematically analyzed. This issue has been addressed by the evaluations that were undertaken in the late 1990s and in the 2000s; see López-Acevedo and Tan (2011) for a review of 19 case studies in developed and developing countries. But these studies also face problems of data quality because many of these analyses relied on recall data. These data also covered only a short time span, which compromised clear identification of the long-term impacts of the interventions. Moreover, and most importantly, selection biases remain a great concern as regards the quality of these studies. Keeping these problems in mind, we note that these studies generally report positive short-run effects (on sales, job creation, better management practices, etc.) but the long-term impacts (survival, productivity, etc.) are mixed. In particular, short-term impacts were found most for programs in developing countries whereas the majority of advanced countries' programs display a long-term positive impact. In a related analysis, Bonilla and Cancino (2011) reported a positive impact of the seed program in Chile on gross employment creation but no effect on profit or access to external financing. López-Acevedo and Tan (2011) have argued that the data issues mentioned above may be one reason for the meager long-term impact found for programs implemented in developing countries. One recent study by Banerjee et al. (2015b) carefully addresses the selection-bias problem in the evaluation of NGO intervention in micro enterprises in six developing countries (Ethiopia, Ghana, Honduras, India, Pakistan, and Peru). In particular, the evaluations were integrated into the implementation of the

programs. Thus, timely data collection for both the control and the program groups was possible (baseline before the intervention, 1 year after the first intervention, 3 years after, and so on). The program involves a combination of persistent intervention including productive asset grants, training and support, life-skill coaching, temporary cash-consumption support, and access to savings accounts and health benefits. The research found a statistically significant positive impact of the intervention on welfare (consumption, food security, production and household assets, financial inclusion, time use, income and revenues, physical health, mental health, political involvement, and woman empowerment) of those who benefited from the interventions. Moreover, the authors claim that these benefits outweighed the cost of the interventions.

6. Concluding remarks and policy considerations

Micro, small and medium-sized enterprises (MSMEs) have been recognized as the main sources of job creation and income, but external financing constraints are key impediments to their growth. As such, MSME support is an important strategic element of international development cooperation to reduce poverty and stimulate inclusive growth in Low Income Countries. This strategy is being re-emphasized in the context of the post-2015 international development agenda on financing for development.

In this paper, we have discussed a number of critical issues involved in designing appropriate policies for improving the access of MSMEs to external financing. In particular, we present the main salient factors that characterize important aspects of MSME access to external financing and review the theories underlying their external financing problems. Moreover, we discuss policy instruments that have been used by development cooperation actors to improve MSME access to external financing. In particular, we document how well the Belgium Development Cooperation support of MSMEs compares to that provided by four other European countries (France, Germany, The Netherlands, and Sweden).

One important aspect of our analysis is the distinction between demand versus supply factors underlying their external financing constraints. On the supply side we see the problem of information asymmetry as the key element that restrains banks and MFIs from financing MSMEs. Thus, donor programs that support training to initiate or improve entrepreneurs' accounting practices could well reduce the information opacity of MSMEs and in turn contribute to alleviate their external financing constraints. However, we also argue for a donor strategy of helping their partner countries establish public credit registries and private credit bureaus. This is where we expect an important impact: it seems indeed that little is currently being done in this area as the data show markedly low information coverage for private credit bureaus in developing countries, particularly in Sub-Saharan Africa and South Asia. Regarding the use of other instruments of support for improving MSMEs financial access, we stress a crucial point: donors should always be careful, when evaluating ex ante the pro- and cons of a given public intervention, of providing genuine "additionality" i.e. complementing and supporting the spontaneous provision of credit by the market, not substitute for it.

On the demand side, our analysis suggests the need to design programs that target the specific needs of MSMEs across the stages of their life cycle: startup, growth, and maturity. One critical stage that requires attention is the startup phase in which assistance can take the form of seed capital provision in order to acquire physical capital. But one challenge here is how best to design the program in order to target the people who have entrepreneurial talents and are also credit constrained. Specific programs to improve the business environment as well as the management skills are also necessary to minimize the failure rate of startup firms and those that are growing.

The comparative analysis on the support of the selected European donors to MSMEs shows a number of interesting aspects of the Belgium Development Cooperation support. First, over the 2004-2013 period the overall support of the donors to the private sector has ranged from 12 to 26% (of non-debt ODA) for the 5 selected DAC countries, which places Belgium among the average performer

country (18%). Second, donors have different strategies and priorities in supporting the private sector, but agriculture is unambiguously their first preferred sector and industry the least. The second most important sector is very heterogeneous: for Belgium it is banking and financial services whereas it is business and other services for The Netherlands and transport plus storage for France, energy for Germany. We have also exploited as much as possible the DGD-ODA data base, focusing on the actors through which private sector support has been implemented by the Belgian Development Cooperation and the sectors which have been targeted. Of the EUR 2 billion ODA allocated by Belgium to private sector support over the 2001-2013 period, BIO and NGOs, of which 177 have been involved, appear to have been the main operators. As the Belgian DFI, BIO has obviously also played an additional and much larger role in PSS through its financial operations, accounted for as "other official flows" (OOFs). The main beneficiary sectors of PSS from operators other than BIO (NGOs and BTC mostly) have been agriculture, formal financial intermediaries and informal or semi-formal financial intermediaries (respectively 76%, 13% and 4 % of their total support).

Although it would have been interesting to go a step further in the analysis of Belgian ODA financed PSS and start studying the outcome effects of selected PSS projects reported in the DGD-ODA database, we have not yet been able do so, given time as well as data constraints (the DGD-ODA database does not include any evaluation data about the projects). We had thus to postpone the analysis of welfare impacts of MSMEs support by the Belgium development actors to a further stage of our research program.

Finally, a number of policy considerations emerge from our brief survey of the literature on impact evaluations. First, MSME programs need to be well-designed, and their objectives clearly formulated on the basis of deep empirical studies tailored to the environment under consideration. This formulation stage can be carried out through studies of the type presented in Section 5.1. Second, a convincing evaluation of the welfare impact of MSME support is important in order not only to adapt existing programs by avoiding practices and instruments that have little return but also to make sure that the costs of the interventions do not outweigh their benefits. However, good quality evaluations pose the challenge of the quality of the data compiled over a sufficient period of time and not subject to selection biases. One solution to these problems is to integrate the evaluation analysis in the implementation of intervention programs from the very outset. Investment very early in collecting good-quality data will enable donor-support programs for MSMEs to be properly evaluated. Donors must not wait to have completed their programs before they start to evaluate their impact.

Appendix I

Titulaire Budget APD: DGD		
Exécutant: BIO	**Pays**	**SOMME 2001-2013**
Secteur non spécifié (DGD capital inflow to BIO's Development fund)	-	598 231 481.65
BIO - Development Fund - Global	-	598 231 481.65
Industrie - Développement des Petites et moyennes entreprises (PME)		**9 614 386.00**
BIO - Expertise Fund –(over many countries and regions) Average size : 68914.6; median: 48000; Max:300000; Min:4000	-	*9 200 135*
Hohhot Zhongran City Gas Development Company-	*China*	*113 189*
Công Ty Methis Environmental	*Vietnam*	*100 000*
Adenia Capital III-(Africa, undetermined number of countries)	-	*75 000*
SOFABRI-Burundi	*Burundi*	*44 232*
Société Malienne de Promotion Hotelière (Azalai)-	*Mali*	*41 470*
Reltex Tarpaulins-	*Kenya*	*40 360*
Finances/Banques - Intermédiaires financiers du secteur informel et semi formel / micro-crédits	-	**3 205 068.47**
BIO - CAPITAL SOUSCRIT VIA DGCD	-	*2478935*
BIO - Fonds d'Expertise - Banco Popular	*Congo (rep. Democratique) (kinshasa)*	*201000*
BIO - Fonds d'Expertise - Africinvest	*Region afrique sud du sahara*	*150000*
BIO - Fonds d'Expertise - Locfund	*Afrique centrale*	*147000*
EFC Uganda	*Ouganda*	*100000*
Mission BIO Rwanda -secteur microfinance	*Rwanda*	*38550*
BIO - Fonds d'Expertise - Microfinance BIO/IFC - Rwanda	*Rwanda*	*38000*
BIO - Fonds d'Expertise - Prasac - Cambodge	*Cambodge*	*34379*
Mission BIO - Activiation ligne de crédit BNDE	*Burundi*	*11449*
Banco Popular	*Honduras*	*5755*
Industrie - Agro-industries		**451 675**
Agriculture et élevage - Développement agricole	-	**330 095**
Energie - Centrales et barrages hydroélectriques	-	**283 000**
Industrie - Politique et gestion administrative	-	**134 000**
Finances/Banques - Intermédiaires financiers officiels		**116 700**
BIO - Expertise Fund - BCB	*Congo (rep. Democratique) (kinshasa)*	*51000*
Bank of Africa Tanzania	*Tanzanie*	*37000*
SacomBank	*Vietnam*	*20000*
Alios Finance Zambia	*Zambie*	*8700*
Communications - Technologies de l'information et de la communication (TIC)	-	**45 000**
Energie -Production d'énergie (sources non renouvelables)	-	**20 000**
Industrie - Industries extractives - Politique et gestion administrative	-	**15 623**
Santé - Services médicaux	-	**13 388**
Total général		**612 460 417**

Appendix 2

Titulaire Budget APD: DGD	
Exécutant: DGD	SOMME 2001-2013
Frais administratifs des DONNEURS	79 310 585
Sensibilisation au développement dans le pays donneur	12 293 367
Education - Education pour une meilleure qualité de vie pour les jeunes et les adultes	11 435 435
Gouvernement et société civile	7 765 138
Santé	6 781 918
Finances/Banques - Intermédiaires financiers officiels	4 079 138
Banque rwandaise de developpement/BRD	*2 478 944*
Banque nationale de Developpement Economique / BNDE ligne de credit	*1 127 072*
Augmentation du capital Banque Rwandaise de Développement	*429 462*
Mission de relance - ligne de crédit Banque Rwandaise de Développement	*21 847*
Mission relance ligne de crédit BNDE	*21 810*
Conflits, Paix, Sécurité	2 987 286
Infrastructure Sociale - Aide plurisectorielle pour les services sociaux de base	2 769 681
Agriculture et élevage	2 296 094
Multisecteurs - Aide plurisectorielle	1 685 031
Eau et assainissement - Aménagement de bassins fluviaux	1 634 906
Commerce - Ajustement lié au commerce	723 111
Transports et entreposage	496 392
Secteur non spécifié	356 370
Industrie - Développement des Petites et moyennes entreprises (PME)	353 013
Industrie (autres: artisanat, tourisme, …)	294 838
Aide humanitaire - Aide d'urgence - Assistance matérielle et services d'urgence (non-alimentaire)	267 884
Population, Santé & Fertilité	217 600
Protection de l'environnement	197 883
Finances/Banques - Intermédiaires financiers du secteur informel et semi formel / micro-crédits	164 452
Conference internationale : conference annuelle du reseau africain de microfinance	*60 000*
Microfinance en mediterrranee - lutte contre la pauvrete - confe	*37 185*
Reseau microfinance mediterraneen / sifra	*13 868*
Seminaire et journees d'etudes sur les initiatives Demicro-Credits	*13 743*
Projets developp. Credits concessionnels	*12 747*
Credits supplementaires 2001 - stage Belgique	*8 924*
Mip 20 credit program of the women of Thach Ha	*7 285*
Mip pgm 2000 - credit program of the women of Tan Ha	*6 695*
Credits supplementaires 2001 - etudes Belgique	*4 006*
Communications - Télécommunications	135 716
Entreprises - Services et institutions de soutien commerciaux	129 294
Pêche et aquaculture - Développement de la pêche	121 931
Commerce - Politique commerciale et gestion administrative	98 798
Sylviculture	73 476
Aide humanitaire - Aide à la reconstruction et réhabilitation	26 370
Communications - Radio, télévision, presse écrite	14 473
Commerce - Facilitation du commerce	6 555
Energie - Centrales alimentées au fuel	6 445
Tourisme - Politique et gestion administrative	6 398
Agriculture et élevage - Services financiers agricoles	4 025
Construction - Politique et gestion administrative	2 999
Total général	136 736 604.21

Appendix 3

Titulaire Budget APD: DGD	
Exécutant: ONGs	SOMME 2001-2013
Agriculture et élevage	328 560 097
Santé - Education et formation médicales	229 628 943
Aide humanitaire	201 496 888
Sensibilisation au développement dans le pays donneur	192 805 899
Gouvernement et société civile	186 421 895
Infrastructure Sociale - Aide plurisectorielle pour les services sociaux de base	158 206 560
Multisecteurs (développement rural, gestion urbaine, …)	133 933 418
Education	127 685 177
Secteur non spécifié	49 562 203
Population, Santé & Fertilité	43 937 924
Finances/Banques - Intermédiaires financiers du secteur informel et semi formel / micro-crédits	31 320 834
*Accès amélioré à des services financiers pour les partenaires (**15 projects on this theme implemented by the NGO 'SOS Faim'** over different countries (Peru, DRC, Mali, Ethiopia, Bolivia, Cameroon, Senegal and Ecuador). **Average size: 430 740; median: 330 935; Max: 1 097 366; Min:54 392)***	*6 461 102*
*Sénégal VII - Ferlo / mutuelles d'épargne et de crédit- **(1 project by AQUADEV)***	*3 164 605*
*Appui institutionnel et technique aux institutions de microfinance **(10 projects over different countries : Senegal, Niger Burkina Faso, Maroc, Rwanda i**mplemented by AQUADEV. **Average size : 312 957, median : 265 239; Max: 718 247; Min:111 044.***	*3 129 573*
*RWANDA II - APPUI AU SECTEUR FINANCIER DECENTRALISE **(1 project by AQUADEV)***	*2 206 228*
*Renforcement des IMF partenaires-(**5 projects in Senegal, Maroc, Niger, Burkina Faso, Togo**), **Average size : 284980 ; Median : 287 943; Max: 377 349; Min:146 680.***	*1 424 897*
Other micro projects (64 projects over different countries, Average size: 227 656, median: 167 873; Max:778 661; Min: 5 320)	*14 934 426*
ONG - Concours fourni aux ONG belges (nationales)	9 812 526
Conflits, Paix, Sécurité	9 132 555
Commerce	7 602 727
Industrie - Développement des Petites et moyennes entreprises (PME)	4 932 418
DEVELOPPEMENT MICRO ENTREPRISES-plans de développement local des groupes ruraux et des micro-entrepreneurs Maritiem (Guinée)	*1 984 257*
Other projets (15 projects over 10 countries) Average size: 128 037; Median: 124 040.	*1 920 554*
Carvajal : création centre développement productif et technologie micro-entreprises secteur alimentaire (Colombia)	*576 235*
Appui au secteur artisan (Burkina Faso)	*414 659*
Entreprises - Services et institutions de soutien commerciaux	4 162 368
Transports et entreposage - Politique des transports et gestion administrative	3 961 416
Agriculture et élevage - Services financiers agricoles	3 640 996
Fonds de garantie pour l'Amérique latine-(nombre de pays indéterminé)	*846 585*
Développement rural intégré et service financier communautaire dans la région de Oromo Phase I (Ethiopia)	*724 019*
KAFO JIGINNEW - SOSF/SOSH (Mali)	*265 287*
Lancement système de micro-crédit pour le renforcement de la sécurité alimentaire en milieu rural du Sud Kivu (Dem Rep. Congo)	*236 814*
FOMAGRO - CREDITS, FORMATION AUX PAYSANS - ACTEC (Guatemala)	*216 675*
PROMOTION DE COOPERATIVES DE CREDIT RURAL - DISOP (Brasil)	*189 455*
Renforcement des capacités de production agricole des petits agriculteurs (Peru)	*186 955*
APPUI INSTITUTIONNEL/EPARGNE-CREDIT SENEGAL - NGO ATIFA	*153 137*
APPUI INSTITUTIONNEL/EPARGNE-CREDIT NIGER - ATIFA	*152 668*

APPUI INSTITUTIONNEL/EPARGNE-CREDIT BURKINA FASO - ATIFA	*150 881*
AMPLIATION DE SERVICE D'EPARGNE ET DE CREDIT POUR FEMMES - DISOP (Guatemala)	*146 992*
APPUI AUX COOPERATIVES D'EPARGNES ET DE CREDIT BAHIA - DISOP (Brasil)	*146 853*
APPUI INSTITUTIONNEL EN MICROFINANCE - ATIFA (Rwanda)	*135 627*
Appui institutionnel/Epargne-crédit Mali—ATIFA	*65 854*
EPARGNE ET CREDIT NUEVA SANTA ROSA TONANTEL DISOP (Guatemala)	*23 194*
Protection de l'environnement	3 258 346
Industrie (Agro-industries, artisanat,…)	2 795 319
Sylviculture - Développement sylvicole	I 721 508
Communications	I 129 959
Pêche et aquaculture - Développement de la pêche	790 022
Eau et assainissement - Assainissement - dispositifs de base	745 332
Tourisme - Politique et gestion administrative	399 999
Finances/Banques - Éducation/formation	367 846
Energie - Production d'énergie (sources renouvelables)	48 682
Gouvernement et société civile	I86 421 895.40
Industrie (Agro-industries, artisanat,…)	2 795 318.92
Total général	I 777 664 587.34

Appendix 4

Titulaire Budget: DGD- APD	
Exécutant: CTB	SOMME 2001-2013
Santé	464 630 093
Gouvernement et société civile	291 705 667
Multisecteurs - Aide plurisectorielle	282 164 186
Frais administratifs des DONNEURS	251 051 281
Education	240 043 731
Eau et assainissement - Aménagement de bassins fluviaux	211 703 686
Agriculture et élevage (autres)	204 662 090
Transports et entreposage	85 723 276
Infrastructure Sociale	79 221 289
Energie	61 761 578
Secteur non spécifié (fonds de développement ivoiro-Belge, participation dans le capital CTB par Etat Belge…)	54 960 856
Soutien budgétaire	46 484 018
Aide alimentaire	41 470 118
Sensibilisation au développement dans le pays donneur	35 625 837
Population, Santé & Fertilité	35 077 966
Protection de l'environnement - Diversité biologique	18 472 562
Sylviculture - Politique de la sylviculture et gestion	17 092 848
Finances/Banques - Intermédiaires financiers du secteur informel et semi formel / micro-crédits	17 073 031
*UNION DES FEMMES CAPACITE INSTITUTIONELLE PHASE 2 / MICRO-CREDITS-**Vietnam***	*3 862 293.64*
*Union de Femmes Vietnamiennes - Accès au crédit et services d'appui aux entreprises-**Vietnam***	*3 457 226.89*
*Renforcement des capacités des réseaux d'institutions de micro-finance (PAMIF 2)-**Sénégal***	*3 303 758.66*
*Services financières ruraux dans la Sierra Norte-**Equateur***	*3 236 329.30*
*Appui institutionnel et technique aux structures d'encadrement au niveau macro et meso du secteur de la micro-finance (PAMIF 1)-**Sénégal***	*1 574 881.15*
*Promotion des Micro-entreprises Rurales dans le Nord du Maroc à travers l'Appui au Secteur du Microcrédit-**Maroc***	*1 152 676.38*
*Réseau des mutuelles d'épargne et de crédit (REMEC-NIAYES)-**Senegal***	*411 357.41*
*RENFORCEMENT CAPACITE INSTITUTIONNELLE UNION FEMMES-**Vietnam***	*67 992.51*
*Mission bilan-évaluation microfinance-**Senegal***	*6 515.85*
Pêche et aquaculture	14 356 057
Commerce - Ajustement lié au commerce	11 760 440
Industrie - Développement des Petites et moyennes entreprises (PME)	10 282 067
*Centres de services no-financières dans le couloir économique Ayacucho-Apurimac-Huancavelica-**Peru***	*3 501 083*
*Direction national de petites et micro-entreprises-**Peru***	*2 379 577*
*Programme de Centres de Services non-financiers pour les Entreprises à Ayacucho-**Peru***	*1 515 305*

*COOP.FINANCIERE ASSISTANCE TECHNIQUE PME INDUSTRIES SIMME-**Guatemala***	*1 504 960*
*APPUI ET SERVICES AUX ENTREPRISES ASE / SUBVENTION-**Côte d'ivoire.***	*866 261*
*Unité de Pilotage des Actions d'Assistance aux Entreprises (UPAE) phase 2 + évaluation mi-parcours- **Tunisie***	*514 878*
Conflits, Paix, Sécurité	6 779 170
Industrie (autres)	6 073 729
Agriculture et élevage - Services financiers agricoles	4 022 612
*Facilité d'Appui aux investissements agricoles dans les départements du Mono, du Couffo, de l'Atacora et de la Donga – FAIA-**Bénin***	*4 022 234*
*FONDS DE PROMOTION PME AGRICOLES (FPPMEA)-**Côte d'ivoire***	*378*
Communications - Télécommunications	1 191 382
Entreprises - Services et institutions de soutien commerciaux	21 944
Total général	2 493 411 515

Appendix 5

Titulaire Budget APD : (Autres sauf DGD: SPF, Provinces, Régions, Communes, etc)	
Exécutants: CTB, ONG, Provinces communes, régions …directement ou via les organismes multilatéraux (ADB, AfDB ,…,IMF,etc)	Somme 2001-2013
Dette -(Annulation, Rééchelonnement d'échéances et refinancement,…,etc)	2 713 930 595
Secteur non spécifié (aides communes régions, commission européenne, subsides régions, etc)	1 487 512 898
Réfugiés dans le pays donneur	698 422 448
Aide humanitaire - Aide à la reconstruction et réhabilitation	675 653 834
Gouvernement et société civile	519 541 421
Multisecteurs	499 757 036
Frais administratifs des DONNEURS	435 299 038
Conflits, Paix, Sécurité - Dispositifs civils de prévention des conflits et constr de la paix	267 828 910
Santé - Services médicaux	194 104 224
Infrastructure Sociale - Aide plurisectorielle pour les services sociaux de base	144 179 555
Aide alimentaire - Programmes de sécurité et d'aide alimentaire	105 723 400
Education - Education de la petite enfance	83 239 912
Finances/Banques - Intermédiaires financiers officiels	77 580 006
Fonds africain de développement / reconstitution	*43 827 575*
IMF / ESAF / PRGF - ENHANCED STRUCT. ADJUST FACILITY	*25 436 627*
FONDS ASIATIQUE DE DEVELOPPEMENT - AUGMENTATION CAPITAL	*5 341 762*
AGENCE MULTIL. DE GARANTIE DES INVESTISSEMENTS / AMGI - MIGA	*1 121 818*
AUGMENTATION DU CAPITAL BANQUE AFRICAINE DE DEVELOPPEMENT	*1 049 490*
ADHESION DE LA BELGIQUE A LA SOCIETE INTERAMERICAINE D'INVESTISSEMENT	*802 734*
Transports et entreposage - Education/formation dans les transports et le stockage	58 997 412
Agriculture et élevage	57 010 341
Sensibilisation au développement dans le pays donneur	50 586 545
Protection de l'environnement	47 690 559
Eau et assainissement - Aménagement de bassins fluviaux	38 391 867
Population, Santé & Fertilité	32 326 928
Communications	24 597 922
Industrie (autres)	21 453 490
Energie	20 482 345
Industrie - Développement des Petites et moyennes entreprises (PME)	8 424 182

Commerce - Education/formation dans le domaine du commerce	5 062 898
Sylviculture - Développement sylvicole	3 713 569
Entreprises - Services et institutions de soutien commerciaux	3 643 723
Finances/Banques - Éducation/formation	3 503 521
Finances/Banques - Intermédiaires financiers du secteur informel et semi formel / micro-crédits	3 166 923
BIO - PARTICIPATION AU CAPITAL VIA S.B.I. (66,6 % ETATIQUE)	*1 650 971*
Donation au Fonds de garantie Microcredit	*496 000*
Compensation de garantie à incofin cvso pour leur participation à ACME	*300 000*
Don au Fonds de garantie microfinance	*248 000*
Contribution au IMPULSE MICROFINANCE INVESTMENT FUND	*150 000*
Integrating microfinance in central bank policy OIT	*70 000*
Aide de la province du Brabant wallon: Aquadev	*39 000*
Aide de la province d'Anvers: crédit à Santo Tomas	*37 484*
"Subside de la province Flandre-Occidentale: la microfinance pour 250 familles à faible revenu dans cinq villages"	*34 169*
Province de Limbourg: systèmes de garantie participatives	*32 000*
Aide de la province Flandre-Occidentale -- Construction atelier de confection et magasin	*30 986*
MICRO-CREDITS PME ALTERFIN	*30 389*
Aide de la province Flandre-Occidentale -- Découvert Kapatagan Isabela	*26 029*
Aide de provinces flamandes (général)	*12 395*
Province de Limbourg: ASHI grameen	*7 500*
"Subside de la province Flandre-Occidentale: création de caisses d'épargne et de prêts à petite échelle en 5 endroits"	*2 000*
Tourisme - Politique et gestion administrative	2 842 443
Finances/Banques - Institutions monétaires	2 493 909
Subventions à l'importation - Produits	2 478 935
ONG - Concours fourni aux ONG belges (nationales)	1 369 488
Pêche et aquaculture - Développement de la pêche	593 342
Construction - Politique et gestion administrative	78 637
Total général	8 293 615 139

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