Crossfire

In this issue, Crossfire invites Tyler Biggs and Justin Highstead to debate the issue:

Matching grants are a solution to a donor problem, rather than meeting a need of recipient countries

Dear Justin,

First off, let me begin by stating that, although my task is to defend this assertion, I do not entirely agree with all aspects of this statement. I am told, however, that we have some leeway in this debate to declare what we do believe and to go from there.

I think that matching grants have the potential to be an effective private sector development tool for both donors and recipient countries. There is a clear economic rationale for such subsidies in developing countries and donors need this type of flexible instrument to work effectively at the firm level. But turning potential into beneficial impact on the ground requires effective implementation. There can be a sound rationale for such an intervention, but its success as a private sector development tool also rests on the recipient government's/donor's ability to implement the intervention in a way that addresses the rationale. Where I think matching grants fall short, is in effective implementation.

I will elaborate a defence on these thoughts further below. As we are limited in the number of words in this debate, I orient my remarks to matching grants aimed at private sector development, although the arguments surely apply in other areas where grants schemes are being used.

Economic rationale for a subsidy

The economic rationale for matching grants is based on the fact that market failure is endemic in many areas critical to private sector growth in developing countries. It is well documented in theory and backed up by empirical evidence that in the presence of externalities markets, by themselves, do not necessarily, or in general, lead to economically efficient outcomes. In particular, they fail to bring forth socially optimum levels of investment in areas such as technology transfer, training and 'self-discovery' (the process of diversifying into new activities), where technological and pecuniary externalities are ubiquitous.

Take, for example, the case of investment in technology transfer (technology is defined here in broad terms to include new ideas, production techniques, management practices and so on). It is generally accepted that a good portion of the benefits of technology transfer cannot be captured or 'appropriated' by the firm engaged in the initial activity. The benefits of one firm's technology transfer investment frequently 'spill over' to others that, without investing in the technology transfer process themselves, nevertheless learn about its results. Because of such information externalities the economic (or social) benefits of technology transfer investments are greater than the returns to any individual firm that undertakes them. As a result, the private sector can invest too little in technology transfer relative to what is socially optimal for sustained long-term growth. Financial market imperfections and the inability to get credit can exacerbate this problem in low-income countries.

According to the principles of optimal policy intervention, the right approach in this case (and

in the cases of training and self-discovery) would be to provide a subsidy to the technology transfer investments generating the spillovers, with the size of the subsidy calculated to match the value of the externalities. This provides a clear rationale for matching grants aimed at increasing technology transfer investments to more socially optimum levels.

Grant schemes also fit into donor's lending priorities. In the wake of policy reforms in many countries, the private sector faces considerable competitive pressure to upgrade its capabilities via technology transfer and training, and demand for assistance is substantial. Donors see matching grants as an effective, less bureaucratic tool to provide support for 'learning' and technical change. A matching-grant scheme puts resources directly into the hands of private sector purchasers of services allowing them to choose what technology transfer investments and training services make best sense for them, and allowing them to select their own service providers.

Necessary and sufficient conditions for successful implementation

While there is a sound rationale for matching grants schemes to address market failures, their success depends on the ability to implement these schemes in a way that addresses this rationale. Successful implementation of matching grants, as in any public investment programme, crucially depends on the ability to select (subsidize) technology transfer investments that give the biggest economic (social) return for the public dollar in terms of the economic rationale for the scheme. To achieve this goal, policymakers must succeed at two tasks: selecting technology transfer investments with large economic returns to the country, and funding only those investments that would not otherwise find private funding.

The first task involves searching for maximum economic returns for the government dollar when making grants (otherwise it would be better to put these public funds into higher return public investments, such as schools, roads, or perhaps hospitals, rather than to subsidize private firm's investments). Matching grants managers must be 'selective' and aim for investment projects that potentially produce large economic (social) benefits for the economy. Economic benefits include private profits to investing firms plus wider benefits to the economy in the form of externalities (information or knowledge spillovers, or pecuniary spillovers in the form of lower prices or higher product quality) stemming from increased investment in technology transfer or training. 'Good' grants are the ones that generate spillovers, as the justification for public support is based on these wider economic benefits, not on the size of private benefits.

It must be emphasized that the taxpayer is offering a subsidy to overcome market failure and increase technology transfer investment in order to benefit from additional externalities. Investing firms are willing to pay for the private profits generated by the added investment and taxpayers are willing to pay for the spillovers because they generate added economic growth for society. This is why cost-sharing grants make sense.

The second task relates to the fact that there is no need to subsidize (with taxpayer funds) technology transfer investments that the private sector would fund on its own. Public funding should not 'crowd out' private funding. Policymakers must strive to achieve 'additionality', in the sense that public subsidies should provide incentives for firms to increase their technology transfer investments beyond what they would have funded on their own. Fostering additionality might also include inducing firms to make investments sooner than they might have, or inducing firms to make better, or higher quality technology transfer investments.

These necessary and sufficient conditions for successful implementation require policymakers to have a great deal of detailed information, which is difficult to obtain in practice. To calculate the optimal subsidy (grant size), they need to have some estimate of the magnitude of the externalities that will be produced by technology transfer investments. To make sure public funding is not crowding out private funding, they need to know what types of technology transfer investments firms are making on their own. And finally, to have some assurance that firms receiving grants will perform as expected with public funding, they need to subsidize the 'right' firms. This requires information on enterprise 'capability' – planning, technical and financial capability to use public subsidies productively.

This is a tall order, and pretty much eliminates the possibility of ever really meeting the conditions for successful implementation. But the world is not perfect. Policymakers, in cooperation with the private sector, can go a long way toward successful implementation by being pragmatic and disciplined: choose a subsidy size that is workable, say 50/50, and focus

on funding technology transfer investments that have the potential of generating large spillovers (for example, innovative technologies, new to the economy that have potential for large 'demonstration effects') in firms that have the capability to perform, with a watchful eye toward not crowding out private funding.

Unfortunately the matching grants schemes I have looked at around the world largely fail to meet even these 'second-best' conditions for success. First, the importance of establishing a clear distinction between the private benefits to firms and the broader economic benefits (via 'spillovers effects') to society in extending grant support is almost completely ignored. The emphasis is put on the mantra of the scheme being 'demand-driven' and private profitability. Regrettably, firms have little incentive to propose investment projects to a matching grants scheme that meets the requirements for public funding – that is, investments that generate large economic benefits to society. Rather, it should be expected that firms will concentrate on the private profitability of technology transfer investments and will create internal selection mechanisms to sort out their investments using this criteria. Therefore, handing out subsidies based on the criteria of it being good for private profits does not ensure implementation success.

It is the job of managers of publicly funded subsidy schemes to develop and apply eligibility criteria that make it possible to elicit the 'right' investment projects from firms and then to select from among those projects the ones with the highest potential economic benefits to society. Quite the reverse, most schemes work on the premise that, if the firms getting grants increase their sales or exports, then the grant scheme is a success. (Adding to the problem, these claims are generally made without checking the counterfactual question, what increase in sales and exports was achieved by similar firms that didn't get grants over the same period.)

Second, many other objectives seem to get in the way of implementing schemes to maximize spillovers – government political and social objectives, and donor financial planning priorities. The politicians want everyone to get a grant to maximize votes, putting pressure on scheme managers to spread grants around as widely as possible rather than focus on the necessary conditions for effective implementation. Governments want to assist small firms for social reasons and stress size criteria in grant selection rather than spillover effects. And donors have their need to disburse funds and pressure for quick disbursement, often to the detriment of grant quality.

Third, there are the incentives of the contractors managing a lot of these matching grant schemes to make all these groups happy. Most contractors really do an excellent job setting up a good administrative system for handing out grants under difficult conditions. They also face the daunting problem of having enough information and staff to implement properly. Good implementation is a highly knowledge-intensive and labour-intensive process. It takes a number of highly qualified staff to work closely with firms to maximize the benefits of a grants scheme. Most governments and donors do not want to pay for the management and information gathering necessary to do this, which is an important weakness in these grant schemes. Ultimately, the contractor's incentive is to move the money in a way that looks good, hoping to generate some economic benefits along the way. Because it is difficult and costly to properly evaluate these schemes, a suitable evaluation is never done. At the end of the day, there is little accountability all around.

Given all these difficulties of implementation, it really leaves you with the impression that matching grants, like many industrial policy interventions, are good in theory but not in practice. There is potential in this tool, but much more attention must be paid to implementation and evaluation if this promise is to be realized.

Best regards,
Tyler

Dear Tyler,

I thoroughly enjoyed reading your exchange and I found myself agreeing with much of what you have said. I agree that matching grants have a strong rationale and can be an effective development instrument. I also recognize that implementation has been the principle problem, and as a result, few matching grant schemes have fulfilled their original rationale. This is especially worrying, given the nature of the instrument and their ability to crowd out the private sector and distort markets if implemented poorly. In this respect your critique could arguably have gone further.

Where I may differ slightly is that I see these implementation challenges as surmountable. Furthermore, I am convinced some specific mechanism are already starting to implement

matching grants effectively within the current development system, addressing the key challenges you have outlined. One such mechanism is challenge funds – a specific type of matching grant mechanism that has been pioneered over the past five years in the development context. We are currently trying to capture the lessons from these experiences in the design of a new multi-donor challenge fund due for launch in the summer of 2007.

I will start by revisiting the rationale, but will not spend long on this since you have already outlined this effectively. There are three points worth emphasizing. Firstly, the reality in developing countries is that market and government failures are pervasive. These are complex and often interrelated, hindering economic growth and market development from reaching and benefiting the poor. Market failures include monopoly power, information asymmetries, coordination failures, or failures in linked markets such as finance or knowledge thereby preventing firms innovating and trying new business models. However, government failures are also common. These include a lack of investment in public goods such as infrastructure, policies that benefit the few, crowding out of private provision, ineffective or unevenly enforced regulations, etc. This may result from political capture or cronyism or be the result of a lack of resources, capacity or insufficient experise.

Secondly, doing business with the poor is often difficult. The poor are often dispersed, live in remote locations, have few productive assets and are only able to undertake small transactions. However, sometimes a business is viable, but this is not happening due to many of the market and government failures listed above. These increase costs, reduce competition and ultimately prevent or slow the private sector from innovating and trying new ways to serve the poor profitably.

Thirdly, there is therefore a need to catalyse innovation, and speed up the process. You identified this in your definition of technology transfer.

Serving the poor in markets will often require firms to innovate and invest in trying new business models, products and distribution channels – many of which are unproven and where the viability and returns are untested. Matching grant schemes can incentivize such innovation. Whilst it is sometimes difficult to assess innovation, matching grants are equally valid if they succeed in speeding up the exploration of the private sector. The private sector may do this anyway, but grants enable this to happen quicker – bringing benefits to the poor.

Left entirely to the private sector, microfinance would have probably needed another 30 years to demonstrate that small financial transactions of the poor can be aggregated and met in an effective way.

Whilst donor and government interventions should address the root causes of these market and government failures, it is a long-term agenda and dependent on gradually developing the necessary political commitment and capacity. In the short and medium term these issues remain. Therefore, matching grants which catalyse and speed-up innovation have a particularly strong rationale.

The key question, however, is 'do we have mechanisms that can implement matching grants in accordance with this strict rationale?'

On this question, you identify three implementation challenges that matching grant schemes need to overcome and also three reasons why schemes appear to fail. The three requirements you identify for matching grant schemes were: 1) they must only fund companies in response to clear externalities and market failures; 2) they must not fund ventures that the private sector would fund anyway, and, 3) they must be cost effective: they must have an impact that justifies public expenditure compared to the opportunity cost of using the funds elsewhere.

You also gave three reasons that prevent matching grant schemes being implemented effectively. In all three areas I agree with your observations. They are, however, based largely on the traditional matching grant schemes that donors are increasingly abandoning. Such schemes were based on assumptions that firm-level growth, and SMEs in particular, is what was required for poverty reduction. Most of us now agree it is not outputs of this type that matter but how well and fairly markets are functioning and whether they include the poor.

As a result, DFID and other donors have piloted other mechanisms for delivering matching grants that meet the challenges that you identify whilst avoiding the implementation pitfalls. Let me outline DFID's challenge funds and also highlight how it may be possible to improve on these mechanisms still further.

There is no strict definition of a challenge fund. The two principal challenge funds used by DFID have been the Business Linkage Challenge Fund (BLCF) and the Financial Deepening Challenge Fund (FDCF). Both of these projects have been in operation for nearly

six years and both have been independently evaluated. Their key characteristics have been a mechanism to award grants to private companies or consortia led by a private company, through an open competitive transparent process, where the contribution was at least matched by the private company. The investment is to be implemented by the private firm for long-term commercial gain, but it must also have clear social benefits. In practice, the management of these funds was outsourced to private sector Fund Managers, but with independent expert panels making investment decisions based on clear criteria. The application process consisted of two stages, where firms submitted a two-page concept note, and if successful, a full business plan. To be considered, projects had to have a clear social impact, demonstrate innovation and be commercially viable with potential for wider impact upon the market.

How did they meet the implementation challenges? Partly through outsourcing the management to private sector Fund Managers who understood the markets. For the FDCF this was particularly strong given the focus on a single sector. Like venture capitalists, this enabled the Fund Manager to have an excellent grasp of the activities of firms within a sector and also to understand where the frontiers of innovation really were. DFID also accepted that in order to ensure adequate skills and research, the cost of fund management would need to be as least as great as venture capital fund managers, if not higher, given location and difficulty of markets. Fund management costs were approximately 20 per cent of total funds. Having support from both a local panel and an international panel of private sector experts within that sector reinforced this expertise further.

The criterion of looking for wider systemic impact on the market also ensured this. Sometimes there was a trade off between projects showing a clear direct social impact and those likely to have wider systemic impact on the market. A grant was given to Vodafone, for instance, to pilot a new business model using mobile phones to conduct banking for the poor in Kenya. Though the immediate social impact of this pilot was small in terms of employment or number of the poor being banked, it was considered fundable given its chances of influencing the market and being replicated. The project is now being rolled out by Vodafone across Africa, giving greater credibility to the market potential. Many other players are following suit. In the long term this could potentially impact millions of poor. One small grant has catalysed innovation, speeded up the market and crowded in others.

A BLCF grant was given to a consortium of cotton spinning and seed companies to sell pretreated cotton seeds to Malawian small-holders. Within three years the entire cotton industry in Malawi has changed from stagnating to tripling output, increasing the productivity and income of 180,000 smallholder farmers. This was all based on one grant to enable a group of companies to test a new business model, involving firms taking responsibility for providing extension advice (often considered a public good), linking seeds and credit markets and addressing the coordination failure between buyers and sellers.

In terms of only funding projects which otherwise would not have been funded, this is difficult to measure. Since the internal decision-making of companies is opaque, requesting matching funding is sometimes the only workable solution. Having private sector fund managers and expert panels enables challenge funds to make better judgements. Interestingly, during the independent evaluation of the FDCF, none of the firms interviewed who did not receive grants went ahead anyway. Since the funds were competitive, this

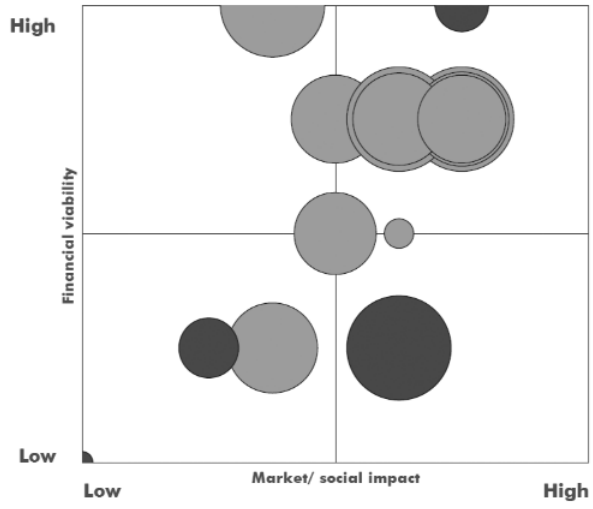

Figure 1. DFID's challange funds – the impact of different grants

also encouraged companies to ask for less funding rather than more. As a result the BLCF leveraged £2 for every £1 of grant funding and the FDCF £3.9.

In terms of impact to justify public funding, challenge funds adopt a portfolio approach. Some projects may not succeed, some will perform averagely and others will be stars. Figure 1 illustrates this. Although not all projects have high social or financial impact, those in the top right-hand corner have succeeded on both counts. (Darker circles are completed projects.) This portfolio approach is important, especially if fund managers are genuinely funding innovation where the costs and benefits are unknown. If all projects were successful then projects would arguably be bankable and not require subsidy. This is born out from the results. Importantly, if grants target projects that can have a wider impact then the few stars in each portfolio can more than justify the entire fund. Many of the BLCF and FDCF projects have now demonstrated commercial viability leading to significant follow-on investment by these firms and others in the market.

DFID, in partnership with other donors is now looking for ways to improve the challenge funds still further. We are considering the selection criteria and incentive and reward structures offered to both recipient companies and fund managers to ensure that grants catalyse systemic change in markets. This emphasizes even more the need for replication of business models and technology beyond the firm. Another option is to include private sector financial institutions on the investment panel to ensure that bankable projects are filtered out and referred to commercial financial organizations.

Though many matching grant schemes have been implemented poorly in the past, challenge funds have shown that effective mechanisms can be found to allocate grants effectively whilst avoiding implementation pitfalls. They are a powerful, lean, light-touch instrument that stimulates innovation and harnesses the ability of the private sector for development purposes. We have very few instruments that can do this. They therefore deserve their place in the donor PSD toolbox.

Regards,
Justin

Justin is a Private Sector Adviser at DFID. This article does not represent the views of DFID. Further information on challenge funds is available at www.challengefunds.org.

Tyler Biggs is retired from the World Bank, where he used to be the manager of the Regional Programme for Enterprise Development. He is now an independent consultant.