

IN THE UK



REPORT

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WHY WE NEED A BRITISH INVESTMENT BANK

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EXECUTIVE SUMMARY

This paper seeks to develop the arguments for a British Investment Bank (BIB) and by learning from the structure and operations of overseas national banks - to set out in greater detail than in previous papers what a BIB might look like and how it would go about fulfilling its remit.

The idea of a BIB has been around for a number of years, but has come to prominence in the last five as the economy continues to struggle to emerge from recession. However, we do not see a BIB as a tool for boosting the economy in recessions. Instead, its aim should be to tackle two longstanding problems faced by the UK economy: first, a tendency to invest less in infrastructure (as a share of GDP) than comparable economies; and second, a shortage of financing, particularly long-term financing, for small and medium-sized businesses.

There are a number of other countries that have national investment banks, but importing wholesale the model of any one of them is unlikely to be the best approach. Instead, lessons should be learned from overseas national banks about the key questions that a UK government would have to address before it could set up a British Investment Bank. Among these are:

- Ownership The BIB should be 100 per cent state-owned.
- Remit The BIB should be set up to increase lending for infrastructure and to SMEs.
- EU state approval Securing EU state aid approval would require the government to demonstrate that the BIB's lending would be additional.
- Governance There must be a clear dividing line between the role of the government and the activities of the bankers.
- Capitalisation The government should inject an initial £40 billion of capital over four years, funded by additional borrowing.
- Leverage The BIB should be allowed to immediately raise funds on capital markets by issuing bonds up to a leverage ratio of 2.5:1, meaning it could have a balance sheet of over £140 billion within four years.
- Activities The BIB would achieve its remit through a variety of forms of lending; and it would also develop an advisory role.
- Accounting The activities of the BIB should not count towards the fiscal target of the government.

INTRODUCTION

Interest in the idea of a British Investment Bank has increased significantly in recent years, particularly since the financial crisis and recession of 2008/09. There is a growing recognition that the balance of economic growth in the UK in the run-up to the crisis was wrong: involving overreliance on personal debt and the finance and housing-related sectors. The balance of future growth, it is hoped, will be tilted more towards exports and investment. But there are serious doubts about whether this outcome can be achieved by market forces alone. The UK has a long history of investing less, relative to national income, than comparable countries. Without institutional change, the desired shift to export and investment-led growth is unlikely to take place. Given the existence of national investment banks in other countries with higher investment ratios than the UK (for example the KfW in Germany), one obvious solution would appear to be a British Investment Bank. Such a bank would also be charged with taking investment decisions on the basis of long-term considerations, so enabling it to develop into an effective counterweight to the increased short-termism of other banks.

The last Labour government – and the business secretary Lord Mandelson in particular – showed some interest in the idea of a national investment bank for supporting the transition to a low-carbon economy, but its conversion came too late in its life to take the idea forward. The new business secretary, Vince Cable, has argued the case for a National Infrastructure Bank in the past, and the Liberal Democrat manifesto for the last general election promised to establish such an institution, but it was not part of the Coalition Agreement.

The Coalition will, however, launch a Green Investment Bank (GIB) in 2012 (subject to EU approval) as part of the government's commitment to setting the UK on course to deliver long-term sustainable growth consistent with the UK's climate change objectives. Initially, it will only have funding of £3 billion, from the government, but once public debt is on a downward trajectory it will be able to raise funds in capital markets (subject to limits imposed by the government). Even then, though, the GIB will be some way short of a full-scale national investment bank.

The purpose of this paper is to imagine what a national investment bank in the UK – a British Investment Bank, or BIB – would look like. Previous papers³ have discussed the rationale for a BIB and provided some pointers from overseas banks as to what a UK institution should do. In this paper, we also analyse in some detail issues such as the remit of the bank, its capitalisation, how it might raise additional funds, its governance structure and potential hurdles to be overcome in setting it up, in particular gaining approval under the EU's state aid rules.

The structure of the paper is as follows. Chapter 1 discusses the rationale for a BIB and makes some recommendations about the scope of its remit. Chapter 2 looks at the main lessons that can be learned from overseas national banks and which of their features might be translated into a UK bank. In the light of these findings, chapter 3 considers the practical issues that would be faced when setting up a BIB and proposes some solutions; as such, it amounts to an outline of what a BIB could look like. This is followed by a short conclusion.

http://www.libdems.org.uk/speeches_detail.aspx?title=Vince_Cable_launches_proposals_for_a_National_ Infrastructure_Bank&pPK=441f7ef6-5e78-44b4-888b-c7115c191479

² http://network.libdems.org.uk/manifesto2010/libdem_manifesto_2010.pdf

³ See for example Skidelsky et al (2011) and Tott (2012)

³ IPPR | Investing for the future: Why we need a British Investment Bank

Case studies of three overseas state banks - the German KfW, the Brazilian Development Bank and the US Small Business Administration – can be found in appendices 1–3.

By beginning to discuss in some detail how a BIB might operate, we hope this paper advances the debate about the feasibility and usefulness of such an institution. Rebalancing the UK economy will be a long-term project; and it is very unlikely to happen through the efforts of the private sector alone. Government must also play a part, and setting up a BIB would be an important step in the right direction.

1. WHY WE NEED A BRITISH INVESTMENT BANK

A potential solution to many problems?

A British Investment Bank (BIB) has been championed as the solution to a number of problems facing the UK economy. Its proponents suggest it could play a major role in boosting demand and growth in the short-term as the economy struggles to emerge from recession and in financing the structural reforms the economy desperately needs in the long-term.

We are sceptical about the potential role of a BIB in helping to lift the economy out of recession, either now or in the future. At a minimum, it would take two years from ministers approving the development of a BIB to one becoming operational. Even in the event of the current government being persuaded by the arguments in this paper to begin to set up a BIB immediately, it would not make its first loans until 2014, or more likely 2015. It is to be hoped that by then the UK economy will be well out of the current recession and growing at a reasonably healthy pace. If it is not, then the economy clearly has fundamental weaknesses well beyond the scope of one institution to correct.

So the timing is all wrong for a BIB to solve the UK's current economic woes; these require the government to guarantee lending to the private sector (as it is doing) and to borrow more to spend on infrastructure. But we are also doubtful about a direct role for a BIB in countering future periods of economic weakness. In their *Blueprint for a British Investment Bank* Skidelsky et al suggest that a BIB could play a significant countercyclical role because 'it would boost aggregate demand' (2011: 11). Although they do not go into details, they appear to believe a BIB could deliberately facilitate an increase in investment in the economy during downturns and ease back on its activities in booms (and they suggest that the Nordic Investment Bank (NIB) plays such a role⁴). This might sound like a good idea in theory but – as UK governments in the 1950s and 1960s found when trying to use fiscal policy to eliminate swings in the economic cycle – it would be very difficult to implement in practice.

Using a BIB as an instrument of counter-cyclical policy would require the government to direct the bank to increase and reduce its lending activities, presumably based on economic forecasts from the Office for Budget Responsibility (OBR). This would be problematic for two reasons in particular. First, it would imply a degree of government interference in the activities of the BIB that would undermine one of the principles under which it would be set up: that the government should only be responsible for setting its broad direction, leaving its operation to the bankers. Second, it would require accurate economic forecasts; but, as the last two years have clearly shown, the OBR is - like other economic forecasters - fallible. The forecasts it made in June 2010 would not have given any government reason to instruct a BIB to step up its lending in a counter-cyclical manner, though with hindsight such a move might have been justified.⁵ Similarly, now that the economy is back in recession, it would seem that being able to instruct a BIB to increase its lending would be a good idea. But it would take time - at least a few quarters - before any additional lending had an impact on the economy, and no forecaster can say with any confidence that growth will not have picked up by then. Except in the case of particularly sluggish recoveries like the current one (which hopefully are the exception

⁴ The NIB is an international financial institution owned by Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden.

In its first forecast, made before the June 2010 budget, the OBR projected real GDP growth of 2.6 per cent in 2011 and 2.8 per cent in 2012 and 2013. The outturn for 2011 was in reality 0.8 per cent and growth in 2012 will be lower still

rather than the rule), attempting to use a BIB in a deliberately counter-cyclical manner would risk exacerbating the cycle as much as countering it.

In fact, it is likely that there would be an element of counter-cyclicality to the BIB through its normal operations, even without interference from the government. Assuming the Bank would raise funds in capital markets and use those funds to finance projects, its cost of capital would fluctuate with the cycle. In recessions, when interest rates are relatively low, it would be able to fund more projects; in booms, when rates are higher, fewer. This would not be a deliberate policy, and would certainly not be done on the instructions of government ministers. Rather it would be a natural response to market forces.

There should, therefore, be no short-term, counter-cyclical role for a BIB, but there are numerous long-term, structural issues that such an institution could be called on to tackle. These include shortages of social housing and affordable homes; the difficulties that small and medium-sized enterprises (SMEs) face getting funding from commercial banks; regional inequalities in growth; encouraging the transition to a low-carbon economy; backing innovative start-ups; and improving the country's infrastructure. In the past, commentators and lobbyists have argued for some form of national bank in the UK to tackle each of these.

There is a risk, however, that establishing an institution that aims, from the start, to tackle so many problems would result in failure on all fronts. This is particularly true for those problems that are complex in nature and likely to require multifaceted solutions, such as regional inequalities in growth. While it is easy to see how a BIB – or a series of regional banks – could contribute to reducing such inequalities, it could only ever be part of the solution. It would not be appropriate, for example, for a BIB to have specific targets around regional growth rates. Nor would it be appropriate, given the uncertainties involved, for government to specify regional lending targets based on ill-defined relationships between lending and growth.

One of the key lessons from other countries is that successful state investment banks do not have wide-ranging remits. Too many targets result in too much complexity. Initially at least, a BIB should concentrate on two areas where historically the UK has had problems for many years: lending for infrastructure spending and lending to SMEs. A national investment bank that successfully met a simple remit to increase significantly lending in just these two areas would contribute to better-balanced and more sustainable growth in the UK in the future.

The need for more infrastructure spending

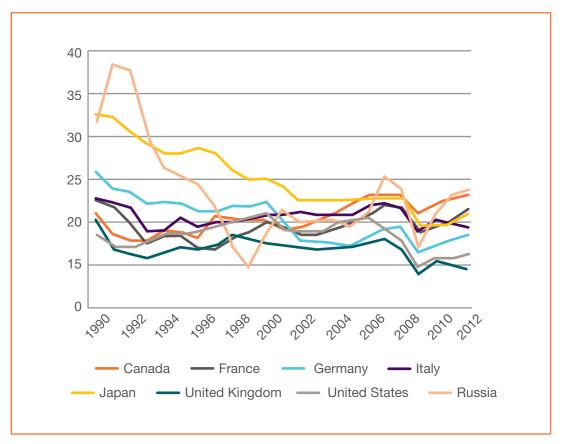
Investment spending in the UK has been perceived as being too low throughout the post-war period⁶ and governments have tried a range of solutions to lift it. In the 1950s and 1960s, for example, low levels of investment were blamed for the UK's poor economic record relative to its European neighbours. The Wilson government's response was a short-lived experiment with economic planning in the 1960s, including the creation of the Department for Economic Affairs. But, like other policy experiments before and after, this approach failed to lift the UK's performance.

There is, of course, no way of judging exactly what the correct level of investment should be in any economy at any particular point in time. For this reason, international comparisons between similar economies are widely used to judge whether a country has

⁶ For a longer exposition on this subject, see Lent and Nash (2011).

a high, low or average level of investment. On this basis, historically the UK has had a poor record on investment spending, falling persistently short of levels of investment in other large advanced economies. Since the early 1990s, the public and private sectors combined have consistently invested less in fixed capital formation⁷ (as a percentage of GDP) than other countries with a similar level of economic development. Since the financial crisis, Britain's level of investment has remained flat at approximately 15 per cent of GDP, while other countries including France and Germany have seen their investment ratios increase.

Figure 1.1
Gross fixed capital formation as a percentage of GDP in the G8 countries



Source: International Monetary Fund

This is due to a combination of both lower public sector support compared to other countries, and private sector companies in the UK focusing more on short-term shareholder returns than their counterparts in other countries. Tackling this problem will, therefore, require a broad range of changes, including for example to corporate governance.

But levels of investment in infrastructure have been particularly poor in the UK (Helm 2008). Generally, explanations for this phenomenon have tended to focus on market failures: the private sector has been reluctant to invest in infrastructure without public support for a number of reasons. In particular, the high upfront, sunk costs and generally long payback periods are a major deterrent (Helm 2010). Uncertainties about future

⁷ This figure includes infrastructure and other fixed assets such as machinery and equipment.

government policy and how it might affect revenues increase the risk that an adequate return will not be made on investments. In some areas, the possibility of technological change leading to obsolescence has the same effect. It is also difficult for private companies to take into account externalities (positive and negative).

However, these factors are not unique to the UK, and it does seem there have been additional factors at work in this country. There is no doubt that infrastructure in the UK is perceived to be worse than in many of our competitor countries. A recent survey of British businesses (CBI/KPMG 2011) found half of those surveyed felt the UK's transport network had deteriorated over the preceding five years and two-fifths felt that the energy infrastructure had got worse. More than half the firms surveyed said the UK's infrastructure compared unfavourably with that of other EU countries. This could perhaps be passed off as the usual business grumbling were it not for the fact that the UK scores badly on infrastructure in the World Economic Forum's Global Competitiveness Index. In the 2011–12 index, it ranked 28th on quality of overall infrastructure (WEF 2011: 361).

The government also accepts that UK infrastructure is in need of substantial improvement. Its *National Infrastructure Plan* says that, although the UK compares favourably to other OECD countries in some areas, there are serious concerns: 'many power stations are ageing, road congestion is a growing concern, train punctuality in the UK is worse than in other parts of Europe and in the longer term there will be an airport capacity challenge in the South East of England' (HM Treasury 2011: 6).

Given the disincentives for private sector investment, the public sector has a major role to play in a country developing its infrastructure. One of the principal causes of the low levels of investment in infrastructure in the UK has been a series of political decisions by successive governments spanning decades. In general, and particularly when faced with the problem of reducing their deficits, governments have favoured lower taxes or higher current spending over capital spending. Massive capital spending cuts (whose effects only become apparent over an extended period of time) represent an easy option compared to large cuts in current spending or big increases in taxes.

This is true of the current government's deficit reduction plan, which involves large cuts in capital expenditure.⁸ This is despite the need for substantial investment in infrastructure across a number of sectors including energy and transport. The sums required are huge. In the electricity generation sector alone it is estimated that up to £110 billion of investment is required by 2020 to meet increased demand and replace capacity that will be taken out of production (DECC 2011). If the necessary upgrades to the grid and to energy supply more broadly are also included, this figure could rise to £200 billion (Ernst and Young 2011). Substantial investment in transport infrastructure, particularly in the rail industry, is also needed.

The need for increased lending to small and medium-sized enterprises

An inadequate supply of affordable, long-term finance for SMEs is another longstanding UK economic problem. In the decades prior to the financial crisis, commercial banks gradually pared back their basic credit provision function in order to focus on short-term trading and commission-based activities such as mergers and acquisitions: activities that yielded bigger and more immediate profits. Since the crisis, the supply of bank credit to small businesses has dried up. Figures from the Bank of England show the growth

⁸ And, it should be noted, the last Labour government planned cuts in capital spending almost identical to those now being implemented by the Coalition.

in lending to all SMEs in the UK has been negative since late 2009; that is for almost three years (Bank of England 2012: 7).

This is not a problem that will disappear soon. Members of the government have urged banks to substantially boost lending to businesses, particularly small and mediumsized enterprises, but at the same time banks are under pressure to repair their balance sheets and increase their capital reserves. In most circumstances, these are mutually incompatible demands, so it is perhaps unsurprising that banks have failed to deliver on the lending front. The introduction of a new risk weighting system for bank assets under Basel III is likely to see commercial banks further reduce their exposure to the SME sector, since it will be subject to higher-risk premiums (Tott 2012).

The financial crisis and its aftermath might have exacerbated the problem of bank finance for SMEs in the UK, but this is a structural phenomenon that has afflicted the UK economy for many years. It was identified 80 years ago in the 1931 Macmillan report, which said that the root cause of the problem was an 'information asymmetry' between lenders and borrowers. Given the high transaction costs of conducting due diligence on each and every individual SME, banks tend to be reliant on standard markers, such as a company having a good track record and high level of collateral. This 'tick box' approach automatically shuts out many SMEs, particularly start-ups, because they enjoy neither. It also fails to take into account the economic viability of individual firms. The result is a shortage of bank finance for SMEs, now generally referred to as the 'Macmillan Gap'.

While big businesses, with the capacity to issue bonds, are having little problem accessing finance, small and medium-sized businesses, which are reliant on loan funding, are struggling. Bond issuance has been the biggest net source of funds raised by British business since early 2011, while loans and equity have been falling in net terms.

In particular, there appears to be a problem for companies looking for funding of between £500,000 and £2 million: too much to raise informally but too little to be of interest to institutional investors (Merlin-Jones 2012). Early to mid-stage firms seeking to raise £5–10 million are also struggling. These firms have typically used up all their seed capital but are not yet making significant sales. Lending to such firms is inherently risky and is most likely to fall foul of central directives to bank branches about conditions for lending. Whereas some of these firms might otherwise consider equity finance as an alternative to debt finance, this has been difficult to secure since the recession in light of the drying up of venture capital markets in the UK and across much of Europe, as well as moves by banks to shed their private equity divisions (see Palmer 2012 for a discussion of these challenges; and in relation to technology firms in low-carbon sectors see also Nash et al 2012).

Government support for infrastructure spending and lending to SMEs

The government is well aware of the need for greater infrastructure investment and increased SME lending and it has announced various measures intended to address the two issues. However, these measures tend to be either limited in scope or to rely on the actions of other parties, such as pension funds or banks, if they are to work. This has created doubts about their ability to deliver.

In July 2012, the chancellor announced a new guarantee scheme for major infrastructure projects in the UK that have stalled due to lack of finance. The basic idea is that a form of government guarantee will enable some of these schemes to raise the funds they need to go ahead. Ultimately, the government hopes projects worth up to £40 billion will benefit.

This follows an earlier initiative, the Pensions Infrastructure Platform. Under this scheme, it is hoped that initial investment in new-build infrastructure of $\mathfrak{L}2$ billion will be made by pension funds, with an eventual target of $\mathfrak{L}20$ billion. In addition, there is the Green Investment Bank, which has $\mathfrak{L}3$ billion to lend over the next few years (though not all of this money will go to infrastructure).

These schemes have to be seen in the context of large cuts to public sector capital spending. Public sector net investment, which the last Labour government increased in 2009/10 to £68.9 billion (as a counter-cyclical response to the recession) fell to £49.1 billion in 2011/12 and is projected to fall further to £47.7 billion in 2015/16 – a substantial cut in real terms.

In an attempt to boost lending to SMEs, the government established 'Project Merlin' under which banks agreed to lend £76 billion to small businesses in 2011. Although banks fell £1.1 billion shy of this target, and were criticised for doing so, the bigger problem with the scheme was that it targeted gross, not net, lending. While banks were making gross new lending of £74.9 billion, they were also seeing loans of even greater value being repaid. The result was that net lending was negative. Consequently, the government is now trying different approaches. The National Loan Guarantee Scheme was designed to make cheaper finance available to companies, initially those with a turnover of up to £50 million but the threshold was later increased to £250 million, by providing up to £20 billion of government guarantees on unsecured borrowing by banks. This, it was hoped, would lower the cost of borrowing by 1 percentage point and might also lead to more borrowing (though there was no guarantee that this would be the case). This was followed by the 'Funding for Lending' initiative, under which the Bank of England will make up to £80 billion of cheap finance available to banks, if they pledge to use it to increase lending to firms and households. Both these schemes rely on banks deciding there is sufficient advantage for them in participating. Although they have indicated a willingness to do so, it remains unclear how much additional lending will result and whether banks will focus on increased mortgage lending or also increase lending to small businesses.9

This highlights the problem with schemes of this nature: their effects are uncertain because they rely on other institutions – such as pension funds and banks – if they are to be successful. Because the government refuses to budge from its commitment to its deficit reduction plan, it cannot countenance any scheme that results in additional public spending. (The Conservative wing of the Coalition is also instinctively against any new state institution.) It is therefore forced into devising complex schemes for getting private sector finance into infrastructure and SME lending. But if pension fund trustees do not choose to invest in new-build infrastructure and banks do not avail themselves of the cheap finance available under 'Funding for Lending', there will be no boost to the economy from extra infrastructure spending or lending to SMEs. A British Investment Bank would ultimately be a better solution because it would be able to raise funds on capital markets specifically to lend for infrastructure and to SMEs.

The disbursement of low-cost finance (that is, below current market rates) to the banks is conditional on them passing it on to businesses. The devil will be in the detail, but if the banks are not able to recoup a sufficient amount of the saving, they may judge it not worth their while to participate. A further concern is that banks may be able to qualify for low-cost funding if they 'sustain or expand' lending. If they focus on the former, a substantial increase in new lending will be unlikely. According to the Financial Times, the banks already envisage that of the £100bn expected boost to lending, up to £80bn would 'replace existing borrowing backed by more expensive funding': see http://www.ft.com/cms/s/0/c8e3c988-bab8-11e1-83e0-00144feabdc0.html.

That said, there is as yet no BIB and the economy is back in recession. The need for an urgent boost to infrastructure spending and to ease the credit constraints for small businesses, so as to boost demand in the economy in the short-term, is all too apparent. If the government will not increase its own capital spending or force the banks that are in part state-ownership to lend more, then schemes of this type have to be tried. They should, though, only be seen as short-term solutions to a cyclical problem; they are not a means of dealing with the UK's longstanding structural problems of low investment in infrastructure and insufficient lending to small businesses.

This is where a BIB comes in. Unlike the recently announced government initiatives, the BIB would not be a temporary tool; it would be a permanent feature of the institutional landscape, operating as a commercial bank with the ability to raise its own funds on the capital markets. Given that a British Investment Bank would almost certainly merit a high credit rating, it would be able to lower the cost of finance and support high-quality investments backed by its implicit government guarantee. This would be crucial to attracting private capital. Given the type of investments targeted by the BIB would be long-term in nature, this would also help attract pension funds and other institutional investors that have long-term liabilities.

Infrastructure and small business lending: odd partners?

Recommending that a British Investment Bank should concentrate on lending for large-scale infrastructure projects and lending to small businesses might, at first glance, seem like an odd combination and it is true that the bankers authorising the two different types of lending will need very different skills. But there are, in fact, reasons why such a combination might work.

First, it is a model that already works well in Brazil, where the Brazilian Development Bank (BNDES) has just such a dual mandate. This point is developed more in the next chapter.

Second, lending for infrastructure and to small businesses would create diversity in the BIB's portfolio, allowing it to hedge against risk and ultimately lowering the cost of finance. Having investments in relatively low-risk projects that generate steady returns, such as conventional transport infrastructure, would allow the BIB to offer lower-cost finance for riskier activities, such as loans for start-ups. A bank that focused solely on high-risk activities – that is on lending to SMEs – would not enjoy this security.

Third, large-scale infrastructure projects often involve the participation of SMEs. By ensuring local SMEs can access affordable credit for working capital and capital expenditure purposes, the BIB would make it easier for them to successfully tap into the supply chain for infrastructure projects. In contrast, an infrastructure development waiting to be constructed that lacks a well-functioning supply chain – because the SMEs that make it up are starved of credit – is less likely to be completed efficiently, if at all (Tott 2012). Ultimately, the BIB might even come to play a coordinating role, organising its investments in such a way that when financing a major infrastructure project it also ensures local businesses have the funding they need to be part of the supply chain for this project. Indirectly, this could be a means of ensuring that local businesses benefit from investment in the regions.

¹⁰ The added attraction for investors of the government guarantee is that it helps ensure 'policy lock-in'. If the state effectively has an interest in the investments, it will be less inclined to introduce changes to policy that might be to their detriment (Skidelsky et al 2011).

2. LESSONS WE CAN LEARN FROM OTHER NATIONAL INVESTMENT BANKS

There are many examples of national investment banks in other countries (the German KfW, for example), groups of countries (the Nordic Investment Bank) and regions (the European Investment Bank). For historical and institutional reasons, it would not be appropriate to import any of these models wholesale into the UK. The KfW, for instance, was established in 1948 and its current design and operations reflect its long history and the institutions that have grown up around and with it over more than six decades. A British Investment Bank would have to be designed to reflect and complement the specific economic, financial and institutional context in the UK.

There are, however, many lessons to be learned from the way national investment banks operate in the rest of the world, particularly the Kreditanstalt für Wiederaufbau (KfW) in Germany, the Brazilian Development Bank (BNDES) and the US Small Business Administration (SBA). This chapter discusses some of these lessons. More detailed analysis of the way these three national banks operate can be found in the appendices.

The Kreditanstalt für Wiederaufbau (KfW)

The German KfW (see also appendix 1) is perhaps the best-known example of a state-backed investment bank. It was set up after the second world war in order to disburse Marshall aid with the backing of the European Community. Although there were some concerns about the KfW's domestic business support contravening the principles of free trade with the European Union, the KfW was able to reach an agreement with the European Commission known as 'Understanding II'. This set a precedent for the emergence of other national investment banks in Europe.

While the KfW's investment remit is wide-ranging and includes infrastructure, housing, energy efficiency and environmental technologies, its main focus is SME finance. In 2010, KfW financed a record €28.5 billion of loans for SMEs, amounting to approximately 94 per cent of all of its commitments for the year. These disbursements were primarily made through its 'on-lending' procedure. Under this model, the SME applies for a loan at their regular bank. If they are successful, the bank will forward the application to the KfW which will then refinance the loan at favourable interest rates and with longer maturities. The liability is usually shared between the KfW and the intermediary, although usually weighted in the latter's favour. The intermediary receives a small margin of the interest fee, paid by the customer (but subsidised by the KfW), to cover credit risk and handling.

The primary reason the KfW is able to channel cheap finance through its intermediaries is because it can access finance on the capital markets more cheaply than commercial lenders, since it shares the German government's triple A rating (AAA). It effectively passes on the low cost of capital to its customers.

By working collaboratively, rather than in competition, with commercial lenders and the German savings banks, the KfW is also able to demonstrate 'additionality' – in other words that it is filling a gap in the credit market. The KfW is also able to show additionality through the type of products it offers. Typically, KfW loans have a maturity of 10–20 years and usually include repayment-free periods. In contrast, most commercial lenders are not prepared to lend to SMEs for longer than three years. As a result, the loans provided by the KfW can be deemed to complement rather than compete with private lenders. This not only ensures added-value, but also enables the KfW to comply with European Union state aid rules. The same is true of the way in which the KfW offers more favourable financing arrangements to SMEs and infrastructure projects based in east Germany and

¹¹ The KfW did though significantly increase short-term lending in response to the recent recession.

Berlin. By actively promoting business in relatively underdeveloped regions, economically speaking, a British Investment Bank would pass a key state aid test.

The BIB should also offer long-term loans and should seek to adopt an on-lending model, though a key challenge would be how to tailor the KfW's on-lending model to fit within the context of the UK's commercial banking structure.

The Brazilian Development Bank (BNDES)

The Brazilian Development Bank or BNDES (see also appendix 2) was established in 1952 as a state-backed institution, at arm's length from government. It primarily invests in Brazilian infrastructure, industry and SMEs. The BNDES also supports technological innovation, sustainable development and, through its international office in London, exports and overseas investment.

While some might argue that such a broad remit would be detrimental, the BNDES views it as a positive. By allowing such diversity in its investment portfolio, it is able both to spread risk (so it is not overly exposed to one type of investment) and to cross-subsidise projects: in other words, it can use secured or projected revenue from relatively safe investments such as electricity infrastructure as a form of collateral, which in turn allows it to charge lower spreads on relatively riskier ventures, such as long-term SME financing, business R&D finance and renewable energy projects. The BNDES has a term to define this approach: 'Corporate Integration' (BNDES 2012). According to BNDES, the bank would not be as effective if it were more limited in scope.

This is a crucial point when bearing in mind the design of the BIB and it is worth remembering that the BNDES is not alone in having more than one priority investment area (the KfW, Nordic Investment Bank and others all invest in multiple products). The BIB should also have a hybrid remit (SMEs and infrastructure), rather than just focusing on one area. This would enable it to supply affordable credit across its portfolio while adequately managing risk.

Like the KfW, the BNDES specialises in providing fixed-rate long-term finance. Nearly three out of four business loans in Brazil with a maturity of longer than three years are made by BNDES (BNDES 2012). However, at the height of the financial crisis BNDES also stepped in – at the request of the Brazilian government – to provide short-term working capital for Brazilian firms; a move that is regarded as having helped to avoid recession. In the process, the Bank increased its share of the Brazilian credit market from 16 per cent in January 2009 to over 21 per cent in January 2011. While we do not think the BIB should be primarily viewed as a counter-cyclical tool, it is possible to see the BIB ratcheting up lending during recessionary periods. As in the case of BNDES, this could include providing short term loans to businesses in addition to fixed-interest loans with longer maturities. By and large, however, the BIB should focus on meeting a market need by supplying long-term loans.

A further lesson from the BNDES concerns how the Bank funds its operations. The BNDES is able to raise funds on the capital markets, is eligible for government tax breaks, and derives a small percentage of its funds from a workers' assistance fund. But the majority of its funds are derived from returns, generated over many years, from its operations. In 2011, net profits were R\$9 billion and were derived mainly from strong performance in the Bank's credit and variable income (equity, dividends and divestment revenue) portfolios. In effect, BNDES is a de facto self-financing institution.

Provided the BIB invested in profitable assets that generated tangible returns on investment, is staffed with experts who know their field well and is equipped with strong local and sectoral intelligence, there is no reason why the BIB could not in time become largely self-financing. It will require government capitalisation and a period of fundraising on capital markets to get started, but in time the frequency with which it issues debt to raise capital may be lessened. Like the BNDES, it will also be important that the BIB retains profits and passes them on to its customers in the form of a lower cost of credit. The bank's goal should be profit-making, in support of its customers, rather than profit maximisation.

The US Small Business Administration (SBA)

The US Small Business Administration (see also appendix 3) is a government agency whose primary purpose is to channel finance to small businesses and start-ups. Unlike the KfW and BNDES, the SBA is not a bank, but uses federal funding and government guarantees to provide affordable and long-term finance to its customers. It also has a number of other functions, including acting as a 'national ombudsman' for small business concerns on Capitol Hill.

Like the KfW,¹² the SBA does not provide loans directly to business, but rather channels finance through financial intermediaries in the form of debt financing, surety bonds, and equity. The SBA's 7(a) loan programme is the most used. Loans of up to \$2 million over 10–25 years (depending on their purpose) are made available to businesses that may not normally qualify for bank funding (for example due to lack of collateral or track record). They can be used for working capital, capital investment, procurement, realestate and debt refinancing. In contrast, its Microloan programme provides short-term loans to finance working capital and purchase inventories. The majority of its programmes are constructed on the basis of SBA-backed guarantees available to the intermediary (rather than direct credit lines to the borrower) which can total up to 85 per cent for loans worth less than \$150,000. The intermediary (usually a commercial bank) must cover the remaining liability.

There are many advantages to a guarantee-based model, not least that it does not require the SBA to commit resources unless a business defaults on a loan. However, there are drawbacks. The high level of guarantees offered by the SBA may introduce an element of 'moral hazard' by encouraging banks to undertake lax diligence and approval processes. Furthermore, to cover the cost of the guarantee, the SBA charges a small fee to the commercial banks, which it will ordinarily pass on to the borrower, raising the cost of finance (Tott 2012). This problem is also encountered by the KfW. However it could be argued that in both cases the provision of secure, long-term loans with competitive interest rates makes up for the inconvenience of the fee. A BIB that operated a system of guarantees would need to be designed carefully so as not to raise the cost of finance for businesses. In short, the BIB would need to use a mix of instruments, not just guarantees.

The SBA does however provide a good example of how a BIB might structure equity investments. In addition to direct equity participation in a limited number of tech start-ups, the SBA's most common equity instrument is its network of Small Business Investment Corporations (SBICs). These are privately owned investment funds, licensed by the SBA, which use their own capital plus funds borrowed with an SBA guarantee to make equity

¹² There is one exception to the on-lending principle in the case of the KfW: KfW grants are available for energy-saving investments in homes – these can be applied for directly with KfW and are disbursed directly by the KfW to the recipients

investments in qualifying small businesses. The SBA guarantee enables the SBICs to leverage additional funds at a ratio of up to 3:1 (up to \$30 million funds can be secured). Since a significant portion of the funds are privately owned, it gives the SBICs a strong incentive to make a financial return and carry out wise investments, removing some of the moral hazard implicit in the agency's guarantee programme. The SBICs also make periodic debenture payments to the SBA and as a result, are largely revenue neutral for the government.

A final lesson worth noting is that the SBA is highly connected at the regional and local level through its system of district and regional offices, and close links with state governments. It also tailors schemes at the regional level, such as in its HUBZone programme. When thinking about the operation of the BIB, it will not only be important for its products and services to be suitably tailored across the different regions of the UK, but its fund managers will need a high level of local intelligence. This will require institutional collaboration with Local Enterprise Partnerships (LEPs) – or any future regional development bodies – local chambers of commerce and other public, private and civic organisations at the local and regional level.

Other public investment banks

Besides the KfW, the BNDES and the US Small Business Administration, two other public investment banks that a UK government might look to for lessons about how to set up a British Investment Bank are the European Investment Bank (EIB) and the Nordic Investment Bank (NIB). These two banks are discussed at some length in Skidelsky et al (2011), which we draw on here to provide a brief summary of their structure and operations.

Both the EIB and the NIB are 'multinational' state banks. The EIB encompasses the European Union countries and the NIB covers the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) and the three Baltic states of Estonia, Latvia and Lithuania. Ownership of the banks and their governance structures reflect their multinational nature. The EIB is owned by all the EU's 27 member states, while the eight countries covered by the NIB are shareholders (and they receive dividend payments). Both organisations are governed by a board of governors comprising the finance ministers of the shareholding countries, which meets infrequently. Various other committees are responsible for supervising aspects of the banks' activities on a more regular basis and the operation of the EIB and the NIB is in the hands of a board of directors. Unusually, the NIB's board of directors are external appointments (representatives of the member states' governments). However, in both cases politicians are not involved in any lending decisions; these are the prerogative of the bankers.

The EIB's objectives are to promote growth, economic and social cohesion and environmental sustainability. These give it a potentially wide-ranging brief as very few projects could be said not to be directed at any of these aims. In practice, the EIB tends to focus on lending that will assist less advanced regions of the EU and funding that will assist the transition to a low-carbon European economy. It invests in large infrastructure projects (alongside private investors) and supports SMEs by extending credit lines to commercial banks.

The NIB's mandate is to promote competitiveness and a better environment. Again, these are so broad as to allow the bank a wide range of activities but in practice its lending is focused on energy, the low-carbon economy, large infrastructure projects and innovation.

Necessarily, because it is a multinational organisation with no local presence, its support for SMEs occurs through commercial banks, which it offers credit lines to with a firm directive about how the funds are to be used.

Both the EIB and the NIB are AAA rated thanks to the security of their capital base (backed by member states) and the quality of their loan portfolios. This enables them to raise funds cheaply in capital markets and to pass on the benefits of low-cost financing to their borrowers. Both banks have a maximum leverage ratio of 2.5:1.

3. WHAT A BRITISH INVESTMENT BANK MIGHT LOOK LIKE

A British Investment Bank would be a complex organisation and it would take many civil servants many months to establish all its detailed operating procedures before it could be launched. Even then, they might not get everything right first time. In this chapter, we provide pointers to some of the issues they would have to face. By doing so, we begin to sketch out what a BIB would look like.

Ownership and commercial status

The BIB would be 100 per cent state-owned. It would be expected to act as a fully commercial entity, but it would not be required to pay a dividend to its shareholders (that is, taxpayers). Among overseas national banks, only the Nordic Investment Bank pays a dividend, perhaps as a means of assuring taxpayers in the separate countries that it covers that they are getting a return for the capital they invest in the bank.

State ownership would help ensure the BIB avoided the fate of the Industrial and Commercial Finance Corporation (ICFC), which was set up by the Bank of England in 1945 and owned by a consortium of commercial banks and the government. In the postwar years ICFC had a substantial share of total lending to SMEs. Once the government stepped out, the banks reverted to type; the ICFC was eventually floated off as venture capital firm 3i and soon focused on management buyouts rather than anything more adventurous. The need for SME lending re-emerged after the ICFC and its successor organisation deserted the field it had been created to fill.

The BIB would nevertheless operate in accordance with pre-defined objectives against which its executive board could be judged. The bank would not be expected to maximise profits. Recent historical evidence suggests profit maximisation leads to short-termism and one of the objectives of setting up a BIB would be to introduce a lending organisation into the UK economy that takes a longer-term view than existing commercial banks. The BIB's infrastructure lending would naturally tend to be long-term in nature. But the BIB should also be charged with offering longer-term finance to SMEs than is currently available. It would, however, be appropriate for the BIB to target an annual profit that could be used to increase its reserves, thus enabling the bank to expand its operations over time.

Remit

National investment banks in other countries and regions have guiding mandates or an overarching set of objectives. The British Investment Bank could have a similar set of objectives but we feel this is unnecessary. The first objective of the Nordic Investment Bank is to promote the competitiveness of the member state economies; and that of the European Investment Bank is to promote growth and employment potential. Since it is hard to imagine a BIB undertaking any lending that could not be said to promote growth and competitiveness, such objectives are little use. Far better for the BIB's objectives to be defined by what it is set up to do: increase lending in two clearly defined areas, for infrastructure and to SMFs.

Each of the two areas will require very different skills, so it is likely that the BIB would effectively be two banks - a British Infrastructure Bank and a British SME Bank - under one banner.

The infrastructure arm of the BIB should typically target 'marketable' assets, such as upgrades to the energy grid, renewable and low-carbon energy projects, high-speed rail, toll roads and affordable housing; assets that provide a future income stream from which the BIB can be paid back. These assets could be sold back or leased to the private sector. As Gerald Holtham (2011: 68) has pointed out, this turns upside down the heavily criticised private finance initiative (PFI) model. Under PFI, the private sector used relatively expensive private capital to build infrastructure projects, such as hospitals, which were then leased to the public sector. Under the BIB model, the public sector would be raising relatively cheap finance (assuming, for example, that a bond issued by the BIB would yield more than a government bond but less than a corporate bond, even one of a highly rated company) to build assets that can be leased to the private sector.

The Green Investment Bank (GIB) is currently operating more as a fund than as a bank because it has been endowed with a limited amount of capital and is not allowed to raise additional funds in the capital markets. 13 Nevertheless, as a dedicated institution to help deliver the UK's low-carbon future, it has been tasked with an explicit green investment mandate. In the longer-term, once free of its funding constraints, it is conceivable that the GIB's investment programme would expand rapidly, and its future could be as a standalone institution or alternatively its work could be absorbed into the infrastructure arm of the BIB. The capacity of the infrastructure arm of the BIB is likely to be far larger than that of the Green Investment Bank, so there is little danger of such a move resulting in fewer resources for green investment. The BIB could be required to assume responsibility for the GIB's green mandate or adopt other means to support investment in a low-carbon economy. For example, it could be instructed to ensure that all its infrastructure projects meet agreed carbon standards. These standards would vary across different forms of infrastructure and mechanisms could be set up to make them become tougher over time. This would quarantee an increase in funding for projects that help reduce the UK's carbon emissions. Much of the KfW's investment focus is on low-carbon projects.

For the most part, overseas state investment banks provide funding to SMEs through two different approaches. In Germany, the KfW on-lends through commercial banks, but mainly through the *Sparkassen*. ¹⁴ These are geographically contained savings banks that have historical ties to specific regions. Unlike high street commercial banks in the UK, they are rooted in local communities, know the sectors which they finance very well, and offer locally tailored services. Firms needing a loan approach the *Sparkassen*, which – if it is not able to lend to the firm on its own – then approaches the KfW. If the KfW is willing to lend to the firm it does so through, and together with, the *Sparkassen*. The Nordic Investment Bank, on the other hand, provides credit lines to banks together with constraints on how the funds are to be used. This ensures that the money finds its way to SMEs.

When the Industrial and Commercial Finance Corporation (ICFC) was set up in Britain after the second world war in an attempt to deal with the Macmillan Gap, it operated more like the KfW. The ICFC worked through a regional branch network to ensure that investments were made on the basis of detailed knowledge of the firm, its market and prospects (Tott 2012: 7–8).

Following this model, a BIB should set up its own network of regional branches, so that it could develop the local knowledge needed to make informed lending decisions to SMEs. This would address the problem that has arisen in the UK of commercial banks making lending decisions on the basis of a series of centrally determined criteria, without sufficient reference to the particular circumstances of the firm seeking money. This approach would

¹³ As a result its remit is restricted to five sectors: offshore wind, waste power generation, waste recycling, industrial energy efficiency and household energy efficiency products (through the Green Deal policy).

¹⁴ See appendix 1 for more details

work even better if commercial banks were encouraged to increase the localisation of banking services too. Or the BIB could invite tenders to be its regional agent or loan officer. Banks could apply, but so could other organisations. The EU's Jeremie funds are managed in Wales by Finance Wales, a government subsidiary. It also administers them in the north of England where regional consortia tendered for a fund manager and Finance Wales was successful.

The SME lending arm of the BIB would have to fulfil its remit primarily through the principle of on-lending. This mechanism, which is similar to the main credit programme offered by the KfW in Germany, would function by using commercial banks as intermediaries. The BIB would channel funds through commercial banks to provide long-term, fixed-interest loans to businesses. Because the BIB would be able to raise capital more cheaply than banks, the BIB's involvement would lower the cost of loans (in a way analogous to the government's National Loan Guarantee Scheme). The banks would appraise individual loan applications and would receive a fee to cover handling costs and credit risk. Crucially, while the BIB would assume a majority of the risk, the bank would also bear a small risk (no more than say 20 per cent) to prevent adverse selection. By working in partnership with commercial banks, which would also part-finance the loans, the BIB would increase the pool of affordable credit available to SMEs without crowding out commercial lenders. In addition to banks, community development finance institutions (CDFIs) and credit unions would be eligible to bring potential borrowers to the BIB.

The BIB could also adopt alternative approaches. Following the Nordic Investment Bank model, it could extend credit lines to commercial banks for the specific purpose of increasing their lending to SMEs. This would improve on the 'Funding for Lending' programme by focusing on lending to SMEs and ensuring that additional lending took place. Additionally, the BIB could bundle individual SME loans into a form that it could sell on to institutional and other investors. This would complement the creation of a US-style private placement market, something which the government has expressed an interest in establishing.

Alternatively, the BIB might focus on guaranteeing the riskiest part of lending, rather than offering to finance the full notional amount of a specific financing need. This could be done through tranche structures, where the BIB is the buyer of risk in the most junior part of the capital structure. This would have the consequence of making lending available, while keeping the balance sheet size of the BIB as small as possible and addressing the market failure represented by the lack of appetite for the weaker and riskier credits. Over the cycle, the BIB would most likely be able to on-sell its risk to market buyers.

Whichever route is followed, it is important that the BIB's lending to SMEs does not become too narrowly focused geographically. There are potential disadvantages to targeting lending at the most deprived areas - in particular the risk of keeping alive businesses that are not financially viable except with subsidised finance (this might be a problem for the US Small Business Administration – see appendix 3). A better approach would be to target lending at a regional level in support of the broader aim of rebalancing the economy away from London and the south east and towards relatively higher growth in other parts of Britain. This would also make it easier to sell the idea of a BIB to the European Commission, which is concerned with lifting the performance of slow-growing and low-income regions.

Securing EU state aid approval

Skidelsky et al (2011) do not mention the need for a BIB to comply with EU state aid rules. Tott (2012) hopes the process of securing state aid approval for the Green Investment Bank will point the way to a route by which a wider BIB could be judged compliant. But this process would be a crucial stepping stone in the creation of a British Investment Bank.

Before a UK government could go ahead and establish a BIB, it would have to gain approval from the European Commission. The EU has strict state aid rules that prevent national governments from providing various forms of aid to companies. In the case of a BIB, for example, the Commission would need to satisfy itself that any lending done by the BIB was not simply undercutting commercial banks, and thus effectively subsidising the rates at which companies could borrow. This could be a long and tricky process, as illustrated by experience with the Green Investment Bank. The government had hoped that the GIB would be fully functioning by now, but the Commission has not yet granted it state aid clearance and its launch has been put back to the autumn at the earliest.

The existence of the KfW in Germany does not mean the Commission would have to approve a BIB that was designed explicitly to mimic the KfW. If the KfW was established today in its existing format, it too would face difficulties with the EU's state aid rules. But these rules cannot be applied retrospectively. The KfW was in existence before the rules were written, indeed before the EU was formed. As such it is said to be 'grandfathered' into the rules – that is, it is automatically deemed to be compliant with them.

The UK government is arguing that the GIB should receive EU state aid approval because there is no other viable source of the funding that it is providing. The BIB would have to be justified in the same way. According to the state aid guidelines, government-financed interventions must demonstrate 'additionality': in other words, they must fill in where there is a specific market failure. What they must not do is 'crowd out' the private sector.

The EU has a market failure criterion – known as the Market Economy Investor Principle – that would have to be passed. If the BIB's remit is confined to funding infrastructure spending and SME lending, this should not be an impossible process to complete, given the UK's longstanding underinvestment in infrastructure, in comparison with similar nations, and evidence of a dysfunctional market in lending for SMEs that stretches back over 80 years. Furthermore, if the BIB worked by channelling finance to SMEs through existing commercial institutions and by co-financing infrastructure projects with private investors, it could be argued that it would be working with, rather than competing against, the private sector.

The EU's state aid rules also carry a number of exemptions, generally in areas where it is widely accepted that market failure is prevalent in all advanced economies. These include financing for SMEs, for innovation and for environmental protection purposes. Increasingly, investments that can be demonstrated to have local economic benefits are also looked upon favourably, particularly if these benefits will accrue in deprived regions. Higher levels of state investment in business and infrastructure in deprived regions are permitted by the European Commission. The KfW, for example, offers more favourable loan terms for SMEs in regions that qualify for regional aid.

Opinions on the likelihood of the UK being able to secure state aid approval for a BIB that has a remit to fund infrastructure projects and to lend to SMEs vary. There are those –

some of whom have experience as government officials dealing with the EU – who argue that the Commission would simply rule out a BIB as non-compliant because it would inevitably make funds available more cheaply than the market rate. However, others suggest this group are using the existence of the EU rules as a means of halting the idea of a BIB before it has even left the drawing board. They argue that the Commission is not made up of high priests defending tablets of stone and is in practice far more flexible than it is often made out to be in the UK. They point out that other countries have managed, after negotiations, to get the Commission to agree to their plans. In the past, the UK has, in effect, used the existence of the EU state aid rules to opt for a laissez-faire approach through choice, rather than as a result of being forced to by the Commission. Ultimately, we do not know how strictly they will apply the state aid rules in the case of a BIB because we do not have enough experience of dealing with them in this regard.

These criticisms appear to have some validity and it would be premature to rule out a BIB solely on the grounds that the EU would not allow it to go ahead. If it could be demonstrated that the actions of the bank were genuinely additional to private provision, the case for a BIB would get a decent hearing from the Commission. That said, any government that was planning on establishing a BIB would be wise to begin consultations with the EU at a very early stage.

Governance

The governance structures of state investment banks in other countries share a number of similarities (see the appendices for details for three of these banks). When looking to import features of these governance systems into the UK, the most important requirement would be ensuring there is a clear dividing line between where the input of the government ends and the work of the bankers begins. The BIB would be established as a commercial entity, independent of government. Although the government would be the BIB's shareholder and would set its strategic objectives, it would have no influence over individual investment decisions or how the BIB manages its funds.

The BIB should be governed by a board of governors that would include a number of government ministers (certainly the chancellor and the business secretary, perhaps also the energy and climate change secretary and the minister responsible for small businesses) and two or three others from outside government appointed by the prime minister. This board would meet infrequently – probably only annually. It would have certain legal duties to perform, such as approving the annual report and accounts of the BIB. It would also assess the performance of the BIB against its broad objectives of increasing lending for infrastructure projects and to SMEs and discuss and approve any changes in its high-level mandate, such as the low-carbon criteria applied to infrastructure lending. It would also be responsible for ensuring that the BIB remained compliant with EU state aid rules.

A separate supervisory board would be responsible for more regularly ensuring that the BIB was operating in accordance with the directives of the board of governors. In order to reduce the risk of partisanship and to avoid wholesale shifts in its composition, this would be a cross-party group of parliamentarians. One option would be to add this supervisory role to the remit of the treasury select committee or the business select committee. Alternatively – and probably preferably – a separate grouping would be formed, but using the select committee model when it comes to electing a chair and appointing members. This supervisory board would oversee the work of the BIB's executive board and would be responsible for appointing (and if necessary dismissing) its senior members.

To ensure that the work of the BIB is strategically aligned with government policymaking in the Department for Business, Innovation and Skills (BIS), HM Treasury and other relevant departments, an advisory council would be established on which ministers, MPs and senior civil servants, plus representatives from the devolved regions would sit. This council would meet perhaps every two or three years. It would assess the existing strategic objectives of the BIB and make recommendations to the board of governors about changes to them. This assessment would be wide-ranging and take into account factors such as current thinking on climate change and the appropriate pace of the low-carbon transition, the latest forecasts of the country's transport needs and progress on rebalancing the economy. The advisory council would also appraise the feasibility of the BIB achieving its objectives in the light of broader economic development and could make recommendations about increasing its capitalisation and/or leverage ratio. In addition, this council would advise the government on whether its policies were fully conducive to the BIB's interests. The KfW's *Mittelstandsrat* (SME advisory council) assumes a similar role in Germany.

The BIB is, however, likely to want more frequent advice on technical matters, such as the latest developments in green technology. This could be achieved by the establishment of a number of technical advisory groups (the Green Investment Bank is setting up similar groups). Depending on the expertise required, the membership of these groups would be drawn from a wide range of sources, including academia and the social partners.

The executive board would comprise the senior management of the BIB. The chief executive would be appointed by the supervisory board and would be expected to regularly report to it. A small number of other members of the executive board might also be appointed by the supervisory board. However, the board of governors, the supervisory board and the advisory council would not be expected to interfere in any way in the day-to-day operations of the bank. These bodies would be responsible for setting the strategic direction of the bank. All banking decisions would, however, be the responsibility of the bankers.

This separation of broad governance and banking decisions would be a crucial aspect of the BIB. It should not be seen as a vehicle for government ministers or civil servants to 'pick winners' or to back pet projects; they have no expertise in doing so. If the BIB is to be successful, it will need to attract capital from the private sector – pension and insurance funds for example. Its success in being able to do so will depend in no small part on its ability to convince those investors that it will use their money wisely: backing projects and investing in SMEs that offer good prospects of producing healthy returns. That means letting bankers make the banking decisions without interference from government.

Capitalising the BIB

A BIB would need an initial one-off injection of capital. This could come from a number of sources, each of which has its pros and cons:

- general government spending
- selling the government's stakes in RBS and Lloyds
- national savings
- a one-off levy on commercial banks
- a targeted round of quantitative easing (QE)

If the government chose to capitalise a BIB out of general government spending, it would have to make cuts to spending elsewhere, increase taxes or borrow more. In current circumstances, none of these options is palatable. The Coalition government is already implementing cuts in spending that have been described by the Institute for Fiscal Studies as the most severe in the post-war period¹⁵ and these have been blamed for contributing to the economy's return to recession. A further hefty cut in spending would be risky both politically and economically, even if the money was used to capitalise a bank whose operations boosted infrastructure spending and lending to SMEs. The same applies to an increase in tax. If the bank is to be capitalised from general government spending, therefore, the government would have to borrow more. This would, in any case, seem a more appropriate way than spending cuts and tax increases of financing a one-off spending item. The problem, of course, is that government debt is already increasing sharply, and this would add to that trend.

Skidelsky et al (2011: 24–5) therefore propose the alternative solution of using the 'profits' from the sale of the government's stakes in RBS and Lloyds. If they really mean the 'profits' then the immediate problem is that there are, currently, no profits to be made; the share prices of both RBS and Lloyds are well below the price at which the government bought its stakes. If they, in fact, mean the 'proceeds', then – ultimately – there is little difference between this approach and that of borrowing more. The government spent £65.7 billion purchasing shares in the banks; but this does not show up in the measure of public debt that is targeted by the chancellor. Since 2008, there have been two measures of public debt, one including the effects of temporary financial interventions and one excluding them. The last government and the current one have focused on the measures after excluding the effects of temporary interventions and George Osborne has set himself the task of ensuring that public debt on this measure, as a percentage of GDP is falling by 2015/16. Using the proceeds from sales of shares in RBS and Lloyds would therefore appear not to affect the targeted measure of debt.

However, once the government's stake in the banks is sold, then debt acquired to purchase that stake can no longer be regarded as 'temporary'. If the stake is sold and the proceeds are used to capitalise the BIB, then the £65.7 billion will have to be treated as 'normal' public debt. In other words, the effect would be to increase the targeted measure of debt. Using the proceeds from selling the government's share in the banks to capitalise the BIB is not a costless option. Ultimately, it means those proceeds cannot be used to pay off the debt acquired when buying those shares, so the means of doing so would have to be found elsewhere. This takes us back to more government borrowing.

A similar objection arises with the idea of channelling funds from National Savings and Investments (NS&I) into a British Investment Bank. Tott (2012) suggests this idea has a number of merits. It would create a depositor base for the BIB; it would be cheaper than issuing gilts; and it would enable NS&I to develop Green ISAs to fund activities of the Green Investment Bank. These are all worthwhile advantages, but – unless creating a link between a BIB and NS&I led to an increase in net saving with the NS&I big enough to match the funds going into the BIB – money that goes from NS&I to the BIB is money that will not be available to fund public sector borrowing. At present, the government puts the proceeds of net investments in NS&I products towards the public sector net cash requirement.¹⁶ If these funds are no longer available, it would have to issue more

¹⁵ See http://www.ifs.org.uk/budgets/gb2011/11chap6.pdf

¹⁶ The NS&I has an annual target range of £0 to 4 billion for its contribution towards financing.

government bonds to fill the gap, just as it would have to if it increased its borrowing to capitalise a BIB.

Another alternative would be for the Bank of England to increase the scale of its quantitative easing (QE) programme but, instead of buying government bonds from banks (as it has done with almost all of the money it has created so far), to do so by purchasing shares in a BIB. Merlin-Jones (2012) argues that this would allow the BIB to be capitalised at 'no cost to the taxpayer'. This is not quite true. If the Bank of England bought fewer government bonds then presumably their price would be lower and their yield higher. The taxpayer would therefore have to make higher interest payments. The Bank of England would also want a guarantee from HM Treasury if it was required to put a BIB's capital on its balance sheet. But this is not the real objection to using QE money to capitalise a BIB. The main problem with this approach is that it mixes an instrument of monetary policy with a long-term structural objective. The Bank of England is undertaking QE because it believes that if it does not, growth in the economy would be weaker, the output gap larger and inflation lower – and in two years' time below its target level.¹⁷ It will, presumably, persist with QE until it thinks that growth is strong enough to keep inflation close to its target without the extra stimulus that QE provides. Then it will begin to reverse QE until, at some point, the programme is ended. At this point, monetary policy will again be implemented solely through shifts in the bank rate. But, if some of the QE money has been used to capitalise a BIB, the Bank of England would not be able to get it back. One element of monetary policy would in effect be hamstrung.

If the Bank of England is to capitalise the BIB, it should do so outside the QE programme. But then follows the question why the Bank of England should want to expand its balance sheet and print money to buy shares in the BIB. Such a move would seem to be some way outside its current remit.

A final option would be to make commercial banks pay a one-off levy and use the proceeds to capitalise the BIB. There is some logic to this proposal. In part, the banks are responsible for the market failures that the BIB would be created to correct, particularly with respect to lending to SMEs, so it might appear to make sense to have them fund it. However, the scale of capital injection required would be greater than any reasonable levy might raise and the banks would argue, with some justification, that any levy would slow their progress in rebuilding their capital bases, and so affect their ability to lend. It would be ironic if capitalising the BIB made one of the problems it would be set up to solve worse.

It is understandable, given the current level of public borrowing and the controversy over the pace at which it is being reduced, that supporters of a BIB try to find alternatives to government spending as a means of funding its initial capitalisation. But these alternatives either involve extra government borrowing or extra printing of money. Before the advent of quantitative easing, few would have suggested printing money was a plausible approach—and it would be odd for the Bank of England, even after it has implemented QE to the tune of $\mathfrak{L}375$ billion, to capitalise a British Investment Bank.

A BIB would therefore have to be funded by the government. One possible approach would be to earmark the proceeds from the sale of government assets over a period to capitalise the institution. If these sales were in addition to those already planned, then

¹⁷ For the Bank of England's explanation of how QE affects the economy, see http://www.bankofengland.co.uk/monetarypolicy/Pages/qe/default.aspx

there would be no implication for government borrowing. If sufficient additional sales could not be identified, then borrowing would have to increase. However, since the BIB would not be able to operate at full capacity immediately, it would in practice require a series of capital injections over several years. So the additional borrowing would not be great. Eventually, because the BIB would operate as a commercial entity and would only invest in quality projects and businesses that generate returns, over time it would be able to finance its own operations and could become largely self-financing.

How much capital would a BIB require? Just as there is no simple answer to the question of what is the right level of investment spending in the UK in any particular year, so there is no simple answer to this question. Much would depend on its ability to raise additional funds in the capital markets, on its permitted leverage ratio and on the demand for funds for infrastructure projects and SME lending placed on it. In practice, the government might have to set up the BIB with an initial capitalisation and an idea of how much it would inject in future years, but be prepared to be flexible dependent largely on the BIB's ability to use its resources for lending. At most, we would suggest that the initial capitalisation would be £10 billion a year (equivalent to 0.7 per cent of GDP) for four years – £40 billion in total. To put this in context, in the latest fiscal projections (published by the OBR alongside the March 2012 Budget¹⁸), public sector gross investment spending over the period 2012–13 to 2016–17 averages £11 billion a year less than its level in 2010–11. Given a leverage ratio of 2.5 (see next section), this would allow the BIB to lend the equivalent of over 2 per cent of GDP a year, which would have a material impact on the economy.

Importantly, the government would not have to pay out the full amount. Instead it would allocate a portion of the $\mathfrak{L}40$ billion as paid-in capital and would earmark the remaining funds as subscription capital. The latter acts as a form of collateral reserve, which the bank only draws on if necessary, but in reality is unlikely to need to access. This enables the bank to increase its leverage when raising funds on the capital markets. The Nordic Investment Bank, for instance, has only 6 per cent of paid-in capital. In the case of the $\mathfrak{L}40$ billion in subscribed capital that might be allocated to the BIB over four years, 6 per cent would require the government to pay in $\mathfrak{L}2.4$ billion or $\mathfrak{L}0.6$ billion per year.

Leverage – raising funds in the capital markets

The BIB would utilise its capital base to raise additional funds in the capital markets. For the most part, it would do so by issuing bonds. These bonds would not have an explicit government guarantee but they would be likely to attract a high credit rating because the bank would be in public ownership and the mix of assets that the BIB would acquire would be high quality and the danger of default would therefore be extremely low. Bonds issued by the European Investment Bank have no government guarantee and have always had a AAA rating. If BIB bonds also acquired a AAA rating, they could be expected to typically yield a little more than UK government bonds and less than corporate bonds.

This would make BIB bonds attractive to UK pension and insurance funds and to overseas investors in the UK bond market. When defined-benefit pension funds close, and the money flowing into them through contributions dries up, they shift assets to more closely match their liabilities. This means they are increasing their holdings of bonds, particularly index-linked bonds, and particularly long-duration bonds. The extra yield that BIB bonds would offer compared to government bonds – at very little extra risk – would definitely appeal to them. The current government has speculated that it

might be able to get pension funds to invest up to £20 billion directly into new-build infrastructure via the Pension Infrastructure Platform. This is probably optimistic, given the conservatism of most pension fund trustees, their revealed preference for liquidity assets and an understandable reluctance on their part to invest in areas where their specialised knowledge is relatively weak. Far more pension fund money should be accessible indirectly through a BIB.

It would be wrong to give the impression that this is 'free' money, as the government is prone to do when it talks about pension funds investing directly in infrastructure. If pension and insurance funds buy BIB bonds, they will have to sell other assets to do so – including UK government bonds and equities. This will push down the prices of these assets and increase their yields. As a result, the cost of funding for the UK government and for UK firms will go up. This is inevitable; the BIB would add to the demand for funds and increased demand means higher prices. This is not, though, an argument against the BIB. The rationale for a BIB is that there are market failures in the UK in the provision of finance for infrastructure and lending to SMEs. A corollary of this argument is that more funds are therefore being channelled to other areas, including the equity and bond markets, artificially lowering yields there. The government and firms that raise funds on the equity market have benefited in the past from the market failures in finance for infrastructure and lending to SMEs; there is no good reason why they should continue to do so.

The volume of bonds issued by the BIB will depend on the size of its capital base and its permitted leverage ratio. The Nordic Investment Bank and the European Investment Bank have relatively conservative leverage ceilings of 2.5 times their capital base. If the BIB were to operate with the same ratio and was capitalised with £10 billion a year for four years, it would be able to raise funds amounting to £25 billion in its first year, and £100 billion over four years. This would mean that within four years of coming into being the BIB could have a balance sheet of £140 billion (9 per cent of current GDP and about a third the size of the EIB's balance sheet). It is hard to say, but investing such an amount over this period would appear to represent a reasonable challenge.

Over time, as the BIB enhances its capital base through its investment activities and expands its balance sheet, it is possible to envisage a higher leverage ratio, particularly when private sector co-financing is secured for individual projects. Germany's KfW, for example, received €1 billion in paid-in capital from the German government in 2011, which it was able to turn into €6.5 billion worth of loans. On top of this, the KfW managed to secure an additional €12 billion from private investors for the projects it invested in in 2011. This equates to a total investment in 2011 of €18.5 billion, or an 18.5-fold leverage on the German government's initial outlay.

BIB products and services

The BIB could offer a diverse range of products. Long-term products for infrastructure finance could take a number of forms, including senior/subordinated debt in the construction or operation phases of a given project, equity co-investment on a *pari passu* basis¹⁹ and specific guarantees including upfront refinancing commitments.

There are two broader options for the BIB when it comes to infrastructure finance. It is feasible that the BIB will, by and large, assume the role of senior partner lender/investor in a given project alongside the private sector and other institutional investors. This is a standard model and is the one that will, when it obtains state aid approval, be used by the

Green Investment Bank. Using a partnership model would also enable the BIB to tap into the expertise of its partners, including external fund managers who would be expected to assume responsibility for performing due diligence on individual projects and overseeing day to day project activities

However, depending on the project, the BIB could choose to be the sole investor. The downside of this option is that the BIB would take the full hit if things went wrong. The upside is that if, as Gerald Holtham (2011) argues, the BIB only invests in 'marketable assets' that generate a return on investment, it would, as sole investor, recoup the full returns on a given project. Holtham argues that in most conventional infrastructure developments, it is usually possible to predict future returns on investment at the outset of the project and provided that the risks are sufficiently low (including the possibility for project failure and/or policy alteration), one could safely assume that the project would be a sound investment for the bank (for example, in areas such as toll roads). Coinvestors would not be necessary. In other areas, it makes sense to form a partnership with co-investors: for instance, BIB financing of upgrades to the rail network and the electricity grid, where the private sector will be the end user (although it is conceivable that the BIB might lease the asset to the private sector).

On-lending to SMEs would be offered to both established firms and start-ups, and tailored appropriately. Different programmes would be established, offering both working capital and debt finance for capital investment. The BIB could also provide venture capital for high-growth-potential start-ups either independently or through Capital for Enterprise, the government's venture capital fund management company.

Lending to small businesses will be inherently riskier than lending for infrastructure purposes, but there is no good reason to believe the loan default of a BIB would be high. The evidence from overseas state banks, including those like the KfW and BNDES that have large portfolios of loans to small companies, is that this need not be the case. Clearly this will depend, in part, on the nature of the portfolio of loans that the BIB accumulates. If it has an excessive focus on lending to risky start-ups in new areas of the economy, then a high default rate would be a possibility. If, alternatively, it avoided such lending altogether, the default rate would be much lower. This, however, would be counter to the rationale underpinning the BIB, which is, in part, to get more funding to companies that currently find it difficult to attract finance. Ultimately, it would be for the bankers to decide how much risk they are prepared to take in their lending to small businesses – though this would be done in the context of having a low risk portfolio of infrastructure assets, which would increase their flexibility.

It is also possible to envisage the BIB acting as something of a one-stop shop for a range of SME financing support products already offered by BIS and its subsidiaries.²⁰ This is likely to increase awareness among businesses of the products and services on offer and would ensure that the BIB was not reinventing the wheel. Placing the government's business financing initiatives under the jurisdiction of the BIB would also make it more difficult for the Treasury to pull the plug on any given programme as and when it felt inclined. Most importantly it would allow for greater strategic coordination of financing initiatives, in a way that does not currently happen.

Both the KfW in Germany and the Small Business Administration in the United States provide wider business support, procurement assistance, training and advice (see

appendices 1 and 3). Skidelsky et al (2011) suggest that the British Investment Bank could do likewise.

In particular, they argue that the bank could be a 'centre for project identification, preparation, appraisal and evaluation' when it comes to infrastructure projects (2011: 22), though they go on to note that it could not be effective in this role without an overhaul of the UK's planning procedures. From the purist's point of view, such a move would reduce to negligible the likelihood of political considerations being part of the decision-making process about which infrastructure projects should get the go-ahead. Bankers could be expected to be overwhelmingly concerned with financial considerations when assessing projects. However, there is a case for saying that infrastructure development is a legitimate arm of industrial policy and that the state should be concerned with a wider set of factors - externalities as economists call them - when projects are appraised. Faced with the choice between supporting one of two toll roads, for example, bankers at a BIB might simply compare the prospective returns from each option. The state, however, would also be interested in the wider economic benefits that each road would produce and could legitimately prefer the one with the lower narrow financial return if its relative wider benefits to the economy were sufficient compensation. Depending on its governance structure, the BIB could be required to take the wider benefits into account when taking decisions, though this would be at the cost of blurring the dividing line between where the state's role in the BIB ends and the bankers' role begins.

Skidelsky et al also recommend an advisory role for the Bank's SME activities. This would encompass 'the securitisation of existing stocks or new flows of SME loans' (2011: 22–3) and could be an important function, freeing resources for commercial banks to make additional lending. But the KfW and SBA go further. They also advise small companies about business development, for example offering assistance with bids for government contracts and, in the SBA's case, pushing government to make it easier for small businesses to win contracts. It would be likely to take a number of years for a BIB to develop into a 'champion' of small businesses in the UK along the lines of the SBA, but it should have ambitions from the start to do so. The better the bank understands the businesses it is lending to, the lower the likelihood of default and the easier it will be to attract capital.

Accounting for the BIB in the public finances

A British Investment Bank would be part of the public sector in the UK. This means that its financial liabilities – the money it raises in capital markets though bond issuance – would be counted towards public sector net debt but the bulk of its assets would not be netted off (only liquid assets are taken into account in the calculation of net debt). The creation of a BIB would therefore lead to a substantial increase in public sector net debt as currently measured. Its activities would also increase measured public sector net borrowing.

There is though a qualitative difference between the government having to borrow because its current spending commitments are greater than the sums it is prepared to raise in taxes and a BIB raising funds in asset markets to use to finance infrastructure projects that will generate a stream of income in the future (a toll road or railway track). This stream of income can be used to repay the BIB and the BIB can use the money to pay a return to its financiers. The government is borrowing because it does not have enough income (or alternatively because it is spending too much); the BIB is at the centre of a set of commercial transactions.

Of course, this is only true if the BIB's lending is self-financing. The BIB's infrastructure lending should be to energy companies or to companies operating toll roads or bridges or, perhaps, railways. It cannot just be financing Ministry of Transport road-building, because then it would just be a substitute for the gilt market. The idea of a BIB, after all, is to generate additional investment in infrastructure not directly under government control, not to find an alternative route to financing government spending.

One solution would be to exclude the self-financing activities of the BIB from the calculation of public sector debt and borrowing, on the same grounds that temporary financial interventions (even though they are likely to stretch over many years) are now excluded. Another would be to switch the focus of fiscal policy away from public sector measures in favour of general government measures. As Gerald Holtham (2011) has pointed out, the UK is unusual in targeting a measure of public sector borrowing and only does so because historically borrowing by public enterprises like the railways and the post office was undertaken in the government bond market. The majority of countries favour targeting a general government measure of borrowing for fiscal purposes. This includes all layers of government – central, state (where appropriate) and local – but excludes public sector enterprises. General government borrowing is the standard measure of the fiscal stance adopted by the OECD and the EU, for example in the Maastricht criteria.

Current circumstances, with a political debate raging about fiscal policy and about the appropriate speed of deficit reduction in particular, are hardly the most auspicious for a government to propose a shift in the targeted measure of its borrowing, even if that shift was to an internationally recognised standard. Whichever party announced the change would inevitably face a charge from its opponents that it was shifting the goalposts on deficit reduction. The idea of a BIB however is too important to lose. If necessary therefore the short-term solution of excluding the BIB from the calculation of public sector borrowing and debt should be adopted, with an eventual move to focusing on general government measures when fiscal policy is a less charged issue.

CONCLUSION

In the last few years, a British Investment Bank (BIB) - or some variant on the same theme - has been proposed as a counter-cyclical investment vehicle and as the potential solution to a number of long-term structural problems that are perceived as having held back the UK economy over many years. There is a danger, though, that setting up a BIB with a wide mandate would risk excessive complexity and risk failure on all fronts. A BIB should focus on two areas where the UK has longstanding problems: finance for infrastructure projects and lending to small and medium-sized businesses. In both areas, the BIB should be able to demonstrate that its interventions are in addition to what is already being undertaken by the private sector.

There are many overseas examples of national investment banks that a UK government could learn from when setting up a BIB, though importing any one model wholesale is unlikely to be the best approach. In this paper, we have set out the main lessons that emerge from a study of three overseas institutions: the German KfW, the Brazilian Development Bank and the US Small Business Administration. This complements earlier work that has focused on the Nordic Investment Bank and the European Investment Bank (Skidelsky et al 2011).

These lessons provide some possible solutions to a number of technical questions that a government would need to answer when setting up a BIB:

- The BIB should be 100 per cent state-owned.
- The remit of the BIB should be to increase lending in two clearly defined areas: for infrastructure and to SMEs.
- The BIB would need to secure EU state aid approval, which would require the government to demonstrate that its lending would be additional.
- The governance structure of the BIB should ensure there is a clear dividing line between where the input of government ends and the work of bankers begins.
- The initial capitalisation of the BIB should be £40 billion, built up over four years and found from government spending, funded by additional borrowing.
- The BIB would raise funds on capital markets by issuing bonds up to a leverage ratio of 2.5:1, meaning it could have a balance sheet of £140 billion within four years.
- The BIB should achieve its remit through a variety of forms of lending; and it could develop an advisory role too.
- The government should switch the focus of fiscal policy to the general government balance, rather than public sector borrowing, so as to exclude the activities of the

APPENDIX 1: KREDITANSTALT FÜR WIEDERAUFBAU (KFW)

Overview

The KfW was established in 1948 with the purpose of disbursing Marshall aid to rebuild Germany after the second world war. Today, it is one of Germany's five largest banks and has a broad remit covering infrastructure, SME finance, start-up and entrepreneur promotion, housing and environmental protection and innovation.²¹ It is a state-owned institution, with 80 per cent of equity held by the federal government and 20 per cent by the German Länder, who together set the strategic priorities of the bank as defined in German law.

At the end of 2011, the KfW's balance sheet stood at €494.8 billion while its financing position for 2011 was €70.4 billion, the largest volume in its history (up from €64.3 billion in 2010).²² According to the bank, the demand in the wider economy created by KfW financing resulted in maintaining or creating 10 million jobs in Germany in that year alone. KfW customer surveys reflect a generally positive image of the institution, with 91 per cent of its customers reporting overall satisfaction with the bank's services in 2010.

While the bank has a wide scope, its primary function is to provide affordable, long-term credit to the *Mittelstand*.²³ Its business in this area has grown substantially in recent years and today start-ups and small and medium-sized enterprises receive by far the highest volume of the bank's lending. In 2010, KfW disbursed €28.5 billion of funding for SMEs, which amounted to approximately 94 per cent of the bank's commitments for the year (Merlin-Jones 2012). The bank also has a separate independent subsidiary, KfW IPEX-Bank, which provides export finance to German firms and international project and infrastructure finance for projects in overseas markets involving German firms. In 2011, the subsidiary – which has a standalone rating and is not supported by government guarantee – issued €13.4 billion in loans to its customers.

Products and services

The KfW offers a number of products and services across the various areas of its remit. In all cases, the KfW seeks to support commercially sound ventures that coincide with its strategic objectives.

Business finance

The KfW uses a range of instruments to support German businesses, including loans, grants, guarantees and equity participations.

The most used instrument, which accounts for the largest volume of KfW financing, is debt finance issued through classic or subordinated loans. Credit is disbursed using the KfW's 'onlending' mechanism (see figure A1.1). Rather than providing credit directly to the customer, the KfW channels funds through commercial banks and local savings banks (known as *Sparkassen*), which effectively act as financial intermediaries or 'house banks' for the KfW. The house bank advertises and processes KfW promotional loans to SMEs (including conducting due diligence) and once the loan is agreed, it then submits the agreement to the KfW for refinancing. The house bank receives an interest fee, which is typically the difference between the interest paid by the borrower and the interest required by the KfW, to cover processing and handling. In large volumes, this interest subsidy can be profitable for the

²¹ See KFW 2010 annual report http://www.kfw.de/kfw/en/l/ll/Download_Center/Financial_Publications/Financial_publications/1_Geschaeftsberichte_E/20110610_Internet_KfW_GB10_EN.pdf

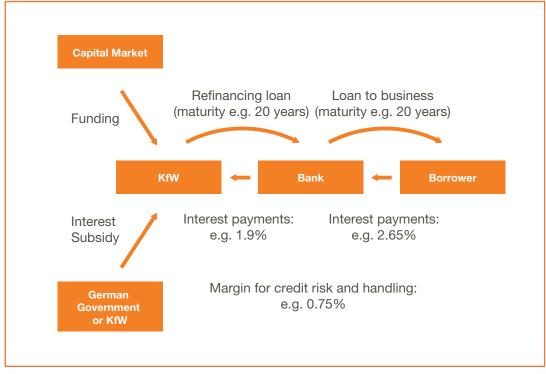
²² Much of the data in this section is taken from KfW Bankengruppe (2012) 'Structure and Mission of KfW Bankengruppe', Powerpoint presentation March 2012. Available from the authors on request.

²³ Germany's small and medium-sized business sector, in which many firms are family run or owned.

house bank and therefore provides a sufficient incentive to engage in on-lending. The KfW or the German government covers the cost of the interest subsidy on the loan.

For the bulk of promotional loans disbursed using on-lending, the house bank benefits from a partial credit risk exemption weighted in their favour (in other words, should the borrower default on its loan, the house bank will only bear the agreed percentage of costs). The percentage of the exemption varies depending on the product in question (see list below). For subordinated debt and other mezzanine products, the KfW assumes a 100 per cent liability on its part of the investment (although the house bank will bear the full risk on its tranche). While the liability is usually weighted in the house bank's favour, the KfW's products always ensure a significant proportion of the risk is assumed by the commercial bank, to prevent moral hazard and disbursement of finance to unviable ventures.

Figure A1.1
The KfW's on-lending model



Source: KfW

The KFW's promotional loan (that is, debt) products fall into two categories; those that are designed for established businesses that have been active in the market for more than three years, and start-ups that are less than three years old. The main products are as follows:

• Business expansion and consolidation loans, known as *Unternehmerkredit*, are available for established firms older than three years. These loans are designed to finance capital expenditure and working capital of firms active in Germany and for investments of German firms operating overseas. A maximum of €10 million is available to businesses, to be repaid over 20 years. Recipients enjoy fixed-interest rates for between 10–20 years. While the loan is offered to businesses of all sizes, SMEs are subject to more favourable repayment terms and interest rates. The KfW typically shares the risk burden 50:50 with the house bank.

- Special subordinated loans are available for established firms with an annual group turnover of less than €50 million, a maximum of 250 employees, and a balance sheet of no more than €43 million. The loan is divided equally into two parts: a classic loan and a subordinated loan. Recipients benefit from seven repayment-free years for the subordinated tranche and two years for the debt capital tranche. The loans are designed to help firms preserve their liquidity and strengthen their equity base.
- Capital loans for start-ups, self-employed individuals and entrepreneurs who have been active in the market for less than three years. These loans, known as ERP StartGeld, are offered at a favourable fixed rate for up to 10 years and can total up to €100,000 for capital expenditure and up to €30,000 for working capital purposes. In both cases, the KfW assumes at least 80 per cent of the credit risk (with the house bank liable for up to 20 per cent). Start-ups that have yet to generate revenue can be granted, on request, two repayment-free years. ERP StartGeld is one of the most popular products since it mirrors the financing requirements of many German start-ups: according to the KfW over 560,000 business starters and SMEs require financing of less than €25,000 on average each year.
- A special *Universal* start-up loan, which offers up to €10 million for capital expenditure and working capital, for businesses less than three years old. As with *StartGeld*, interest is fixed for up to 10 years but the loan can be paid back over a longer timeframe (up to 20 years). The KfW may grant on request one to three repayment-free years.
- Subordinated start-up loans of up to €500,000 repayable over 15 years. These loans are designed for start-ups and young businesses looking to raise additional debt capital from commercial lenders and equity capital from private investors. The KfW does not require any collateral for these loans and will typically assume the role of junior investor (that is, it is the first creditor to bear any losses). Recipients are granted seven repayment-free years and usually enjoy a subsidised interest rate for 10 years and a 'deep subsidy' in the first three years.²⁴
- Innovation finance is available for established self-employed professionals and enterprises seeking capital for R&D purposes or for introducing new products or services into the market. Funding typically comes in the form of 10-year fixed-interest mezzanine loans or senior debt with a repayment-free period. For viable R&D projects, the KfW will cover up to 100 per cent of the investment costs should they exceed €5 million per project. Businesses developing low-carbon energy technologies are eligible for up to €25m and in some cases €50 million of R&D costs. The house bank is usually exempt from the liability for the subordinated tranche, given the high level of risk involved.²⁵

The duration of the loans offered by the KfW is important. By typically offering loans with competitive rates and a maturity of 10–20 years, the bank is filling a gap in the market by providing a product that commercial lenders are not prepared to offer due to the perceived risks. As a result, KfW loans can be considered as complementing those of private lenders, rather than competing with them. In fact, the KfW sees itself very much as working with the private sector and official KfW documents frequently refer to 'subsidiarity' as the basis of its model.²⁶ This not only ensures added-value, but also enables the KfW to comply with a principle of European Union state aid.

²⁴ See http://www.kfw.de/kfw/en/Domestic_Promotion/Our_offers/Business_start-ups.jsp

²⁵ See http://www.kfw.de/kfw/en/Domestic_Promotion/Our_offers/Innovation.jsp

²⁶ The KfW defines its role in the context of subsidiary as 'the concentration of [its] activities on fields not (yet) served by the commercial banks or served not sufficiently or only at unreasonably high prices'.

In addition to long-term credit provision, the KfW also offers a number of equity-based products for businesses looking for an alternative to debt finance. This includes its 'ERP participation programme', which is designed for firms looking to expand or modernise their operations or develop new products, and wishing to strengthen their equity base. Under this programme, the KfW offers refinancing loans of up to €1 million for private equity firms looking to invest in businesses. These contain favourable interest rates and long-term payback periods (of up to 10–15 years in eastern Germany) and are thus aimed at incentivising patient, long-term equity investments to support long-term business growth.

The bank also purchases equity in young innovative technology firms, under its ERP start-up programme. This is a much smaller segment of its equity participation and in practice only occurs in a limited number of cases (and only where the equity contribution is matched by participation by a venture capital investor or business angel). The KfW mobilises additional risk capital from private investors with the support of the German Federal Ministry of Economics and Technology. Typically, the KfW takes a 50 per cent or less equity stake on a *pari passu* basis (that is, it is subject to the same financial conditions as the lead (private) investor). It does not usually assume any management responsibilities for the company but leaves this to the lead investor. The KfW offers a similar programme for social enterprises, in which its equity investments range from between €50,000–200,000.

In addition to this, the KfW has in the past taken special share-holdings in several state-owned enterprises, with the explicit purpose of enabling privatisation of these assets by selling shares on the market. This includes Deutsche Post and Deutsche Telekom, within which the KfW still holds 30.5 per cent (worth €1.3 billion) and 17 per cent (worth €4.3 billion) of shares respectively.²⁷

Finally, the KfW offers grants and subsidised access to training for entrepreneurs and founders of start-up companies. It also offers what it calls 'turnaround consulting', which are grants for established SMEs facing difficulties but that are commercially viable, to access specialist management consultants. The consultants will advise and assist businesses to identify their weaknesses and chart routes forward in order to improve their performance and competitiveness.

Infrastructure

The majority of funds disbursed by the KfW for infrastructure financing are for smaller-scale infrastructure projects at the municipal level. These include housing refurbishment, energy supply, parking lots, public open spaces, and energy-efficient street lighting. In 2011, the KfW disbursed €4.1 billion in social and muncipal infrastructures.

The majority of finance offered for infrastructure projects of this type comes in the form of long-term loans, covering up to 100 per cent of the total investment cost (i.e. including capital expenditure and operational expenditure). For municipal infrastructure projects with costs exceeding €2 million, the KfW will provide 50 per cent of total costs. However, in three specific areas of municipal energy infrastructure (the expansion of decentralised distribution networks, smart electricity grids and decentralised electricity storage capacities) the KfW does not impose a limit on the loan amount.

²⁷ See http://www.kfw.de/kfw/en/KfW_Group/About_KfW/Mission/Special_Tasks/Privatisation_of_Deutsche_ Telekom/index.jsp.

That much of the infrastructure funds are channelled into the energy and energy-saving sector speaks to a wider strategic priority of the KfW that conditions most of its investments: the promotion of the low-carbon energy sector and environmental projection. Indeed, around one-third of KfW's financing volume is invested in environmental technologies and climate protection infrastructures, both in Germany and abroad. These include fixed-rate loans for capital expenditure and installation of micro-renewable technologies, such as solar voltaics, as well as guarantees for geothermal projects. In 2010, KfW outlay in the area of environmental technologies and infrastructure amounted to €2.53 billion, including loans of €1.2 billion.

The KfW also supports larger-scale renewable energy infrastructure projects such as offshore wind farms. Project finance of this sort is usually debt-based and comes from one of three forms:

- a direct loan as part of a bank consortia in which commercial banks participate on a *pari passu* basis and match the KfW's funding
- a split financing package composed of a direct loan from KfW and an 'on-lent' loan via a commercial bank
- a direct loan from the KfW to finance cost overruns.

Typically, the KfW provides project developers with 10-year fixed-interest loans to cover 70 per cent of the total debt capital required or not more than €700 million of the capital expenditure costs of offshore wind projects.

Governance

The KfW is headquartered in Frankfurt and has branch offices in Berlin, Bonn and Cologne, as well as 70 offices overseas. In 2011, the bank employed 4,763 employees across its various offices, of which 2,600 were stationed in Frankfurt.

The bank comprises two executive bodies and two advisory bodies. The executive board is responsible for the day-to-day management of the bank, the conduct of its business and the administration of its assets. The executive board is accountable to the board of supervisory directors. The latter is tasked with appointing and dismissing members of the executive board, approving financial statements and large transactions, and overseeing accounting and risk-management processes. It consists of three committees that enable this work: the executive committee, the credit committee and the audit committee.

The board of supervisory directors is made up of federal government ministers whose position on the board is represented in statute (under the KfW Law), members of the parliament appointed by the Bundestag and Bundesrat, representatives of the commercial banks and saving banks, as well as selected industry, business and trade union representatives. The chairman of the board is Germany's federal minister of economics and technology and his deputy is the federal minister of finance.

The two advisory bodies are the advisory council for promotional measures in eastern Germany and the *Mittelstandsrat* or SME advisory council. The latter advises and monitors the work of the bank in promoting German SMEs in the context of the KfW's other strategic priorities. It too is chaired by the federal minister of economics and technology and the minister of finance. The remaining board members include the commissioner of the federal government for Aufbau Ost, a special appointment tasked with all matters pertaining to the economic development of east Germany, and other members nominated by the different government departments

Like commercial banks, the KfW employs its own research staff. It has a dedicated economics team who track, assess and forecast macroeconomic and capital market trends affecting the KfW's activities, and conduct detailed analysis on economic issues and developments affecting the German *Mittelstand*.

Fundraising and capital base

As a state-backed institution with access to the capital market, KfW can raise funds at preferable rates and pass the low cost of capital on to its customers. It has regularly secured a AAA rating from the independent agencies.

The international capital and money markets are the KfW's most important funding source. The capital markets account for over 90 per cent of the funds it raises and in 2010 the bank raised more than €76 billion from international capital markets.²⁸ While the majority of its fundraising is in US dollars and euros, it also uses Australian dollars, the British pound, the Swedish krona and Japanese yen. This currency diversity, coupled with the different maturities and structures of KfW bonds, enables the bank to target specific groups of institutional investors. Given the bank's role in promoting environmental protection and clean energy, KfW bonds also rate as a strong investment category for sustainable investors.

Although the KfW is state-owned it is a commercially driven institution that seeks to make sound investments. It is profit-making, rather than profit maximising. An important point is that it is not required to remunerate its shareholders (that is, the federal and state government) allowing it to retain profits to strengthen its balance sheet and to increase the volume of financing to businesses. The bank's capital position is also aided by the fact that it has in the past received limited budget funds from the federal government – both directly and through corporate tax exemptions, which it enjoys today.²⁹

Lessons for the British Investment Bank

The BIB should seek to replicate to a certain degree the KfW's 'on-lending' mechanism. This model has many advantages, not least because it would ensure that the BIB is working with the grain of the market, collaboratively with the commercial banks rather than against them. This is important from the perspective of fulfilling the European Commission's state aid criteria.

However, there are some problems with adopting the KfW model wholesale for the BIB. First, the most important constraint is the difference in institutional banking frameworks of the two countries and the fact that the UK lacks the diverse strata of locally rooted savings banks that are prevalent in Germany, through which the majority of KfW business operates. In the absence of these local intermediaries, the BIB would have to work chiefly through the commercial banks, which do not have a good track record in terms of local market intelligence and catering their products and services for local customers (nor do they have a good record on business finance). A longer-term objective to complement the creation of the BIB would therefore be to encourage greater decentralisation of UK banking and the emergence of UK equivalents of the *Sparkassen*. Like the *Sparkassen*, they could potentially be legally mandated to serve businesses in their locale or region only.

Second, it is important that the BIB demonstrates that its financing activities are genuinely adding value and providing a service not offered by the private sector. There are different

²⁸ ibid

²⁹ See http://www.kfw.de/kfw/en/KfW_Group/About_KfW/How_we_work/Verantwortungsvolle_Refinanzierung/index.jsp

ways to do this, but an obvious solution is to offer, as the KfW does, liquid credit with long-term maturities. By typically offering loans with 10-20-year terms, the KfW can legitimately claim that it is offering a product that commercial lenders are not prepared to provide. The commercial banks' reluctance to provide long-term credit to businesses is well documented and is linked to the perceived risks of long-term liabilities and, more importantly, the well-evidenced trend towards the short-term pursuit of profits that pervades modern day commercial investment banking (see for example Kay 2011).

Finally, the BIB would need to be designed in a way that passes the EU state aid test. One way in which this can be done is by favouring investments in geographically deprived regions including those that are eligible for regional aid. In the case of the KfW, the majority of its products - particularly those available for SMEs - are tailored on a regional basis. In short this means that businesses operating in economically underdeveloped regions of Germany, namely the east and Berlin, are able to access loans under more favourable terms than businesses in the west. One example of this is with the ERP startup capital programme. This provides KfW subordinated loans to promising start-ups on condition that the borrower secures a minimum amount of equity and additional debt financing from a commercial bank to supplement the KfW loan. For firms in eastern Germany and Berlin, the KfW will provide a greater proportion of subordinated debt and will require a lower percentage of equity and additional borrowed capital than it does for businesses in western Germany (see table A1.1).

Table A1.1 Regional differentiation under KfW's ERP startup capital programme

	Eastern Germany and Berlin	West Germany
Subordinated loan from KfW	40%	30%
Equity	10%	15%
Borrowed capital	50%	55%
Investment sum	100%	100%

 $Source: KfW: http://www.kfw.de/kfw/en/Domestic_Promotion/Our_offers/Business_start-ups.jsp\#KfWStart-upLoan-Universalled (Start-ups.jsp) and (Start-ups.jsp) and (Start-ups.jsp) are the start-ups.jsp and (Start-ups.jsp) and (Start-ups.jsp) are the start-ups.jsp and (Start-ups.jsp) are the start-ups.jsp and (Start-ups.jsp) are the start-ups.jsp are th$

The same regional bias is demonstrated in the KfW's innovation finance programme. For businesses seeking to finalise new products or services and introduce them into the market, they are able to secure capital from the KfW worth up to 80 per cent of total costs if they are based in eastern Germany and Berlin (subject to a €2.5 million cap on funding for each project). In contrast, support for businesses in western Germany is capped at 50 per cent of total project costs or €1 million per project.

Since state aid rules favour regional promotion, the KfW complies on the basis of its product range. Like the KfW, the British Investment Bank could offer more favourable loan terms for SMEs in UK regions that qualify for regional aid - such as the north of England, Wales, Scotland, Northern Ireland, Cornwall and parts of north and east London. This would not only help ensure a more diverse flow of credit to businesses across the UK than currently exists, but would also directly serve the wider strategic goal of rebalancing the economy.

APPENDIX 2: BRAZILIAN DEVELOPMENT BANK (BNDES)

Overview

The Brazilian Development Bank or BNDES was established in 1952. A full-fledged state bank at arm's length from government, BNDES's objectives have evolved in the decades since its inception in line with the priorities of the Brazilian government. Initially the bank focused on financing infrastructure, heavy industry and raw materials. Its remit has now grown to include supporting business growth, regional development, technological innovation, public administration assets and sustainable development.

Today, the bank specialises in large-scale capital-intensive projects (both infrastructure and asset finance) and long-term finance for businesses³⁰ for a range of purposes, including working capital, capital investment, innovation and exports. It has also established international offices in London and Montevideo to support overseas projects involving Brazilian companies and investors and to help the country's businesses access new markets, including through mergers and acquisitions.

In the first five months of 2012, 39 per cent of BNDES' disbursements were in infrastructure – principally telecommunications, rail transport and electricity – with the remaining disbursements to support industry, trade and the service sector. In terms of the size of companies, a growing proportion of total finance dispersed – 39 per cent, or approximately R\$17.2 billion over the same period – is directed at micro, small and medium-sized enterprises.³¹ A defining feature of the BNDES is its long-term approach to investment. This helps it differentiate its products from the commercial banking sector, which is typically focused on short-term credit. Today, BNDES disburses approximately 72.3 per cent of all business loans made in Brazil with a maturity of longer than three years (BNDES 2012).

BNDES's contribution to the Brazilian economy has grown substantially over the past few decades, with its annual financing volume increasing from US\$5.5 billion dollars in 1994 to approximately US\$60 billion (R\$92 billion) in 2008 (Schapiro 2010). Its portfolio has continued to grow during and since the recession. According to its latest annual report, the BNDES disbursed R\$139.7 billion in 2011, which was a decrease on the R\$168.7 billion in 2010. In the first five months of 2012, the bank disbursed R\$43.8 billion, a 1 per cent increase on the previous year.

This surge in BNDES's operations in recent years is in part accounted for by the counter-cyclical role the BNDES was asked to play by the government during the global recession. With commercial banks retrenching, the Treasury set up a direct credit line to BNDES to enable the bank to temporarily provide short-term loans to businesses – something it does not normally do – under the 'Investment Support Programme' or PSI. Consequently, BNDES's share of the domestic credit market increased from 16 per cent in January 2009 to 22 per cent in January 2011, although it has since fallen to 20.5 per cent as normal credit conditions resumed in early 2012.

Scope, products and services

BNDES offers a range of products and services across the various areas covered by its remit. Having diversity in its investment portfolio enables the bank both to spread risk (so

³⁰ The BNDES supports companies of all sizes and across practically all sectors of the economy. Certain types of business are, however, not eligible for financing. This includes financial services and gambling companies.

³¹ The remainder volume was allocated to industry sectors, primarily pulp and paper, textiles and metallurgy. See http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Press/Noticias/2012/20120719_desembolso.html

it is not overly exposed to one type of investment) and cross-subsidise projects: in other words, it can use secured or projected revenue from relatively safe investments such as electricity infrastructure as a form of collateral, which in turn allows it to charge lower spreads on relatively riskier ventures, such as long-term SME financing, business R&D finance and renewable energy projects. The BNDES has a term to define this approach: 'Corporate Integration', which 'utilises financial instruments in an integrated fashion' (BNDES 2012). According to BNDES, the bank would not be as effective if it were more limited in scope.

The type of finance provided by BNDES varies depending on the area in question. Most infrastructure is financed through project finance either using subordinated or standard debt tools and includes both the construction or operation phases of a given project. Business finance includes debt and equity participation and can be used to fund a diverse range of purposes including working capital, capital investment, mergers and acquisitions, exports of machinery and the acquisition of goods and production inputs.

Like the KfW, BNDES does not have local or regional offices but instead uses established intermediaries to disperse funds. Intermediaries include commercial, public or private banks, development agencies and cooperatives. Depending on the type of project, the BNDES will either provide all of the finance (usually over R\$10 million) and will assume full liability for credit risk, or intermediaries will co-finance. If doing the latter, the liability will be split between BNDES and the intermediary. In other areas, including 'BNDES automatic' projects (see below) worth up to R\$10 million, intermediaries are responsible for credit analysis and approval, and will assume full liability in the event of the borrower defaulting on the loan.

Some of the main financing products offered by BNDES are:

- Project finance for infrastructure projects and other capital intensive investments. Finance is usually structured, involving a mixture of debt or equity and has private sector participation. Approved projects are contractually supported by cash flow from the project in question. Assets and asset-backed receivables can be used as a guarantee. Different spreads are offered for investments in different sectors according to BNDES's and by extension the government's strategic priorities. For instance, it offers lower interest spreads on renewable energy projects than telecommunications infrastructure.
- **Debt finance** is also disbursed to businesses and individuals for working capital, capital investment and other purposes. Debt finance takes the form of one of three different types of 'credit contracts'
 - 1. BNDES Finame Credit lines granted for the production and sale of machinery and equipment.
 - 2. BNDES Automatic Financing for working capital and capital investment projects under R\$10 million.
 - 3. The BNDES Card A pre-approved revolving credit scheme for micro, small and medium-sized companies. The scheme is administered indirectly through commercial banks. Eligible businesses are granted credit cards which they can use for capital investment purposes. In the first five months of 2012, R\$3.7 billion worth of credit was disbursed to SMEs through the BNDES card scheme.³²

³² See http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Press/Noticias/2012/20120719_desembolso.html

As many SMEs seeking debt finance do not possess sufficient collateral or a track record, BNDES and its intermediaries decide whether or not to approve loans using several other tools (for loans of less than R\$400,000, no collateral is required). The main tool is an assessment of the future potential of the company based on its business plan (if the loan is granted, performance against the business plan is monitored by the bank). For business innovation financing which is by definition more uncertain, credit is usually disbursed in phases and proceeds on the basis of the business plan being correctly executed (Schapiro 2010: 22–23). All businesses seeking credit from BNDES must also demonstrate their ability to pay interest charges (again determined by progress against the business plan), must be solvent and must comply with BNDES's environmental standards.

Lower spreads are offered on loans to business sectors in which Brazil has, or hopes to gain, a comparative advantage. For instance, BNDES runs special financing programmes for both the pharmaceuticals and semi-conductor industries which are both eligible for more favourable fixed-interest loans.

- Equity participations are an alternative to debt finance and BNDES takes equity positions in companies of all sizes. The bank usually invests in partnership with other private investors and, aside from its standard power as a shareholder, it does not have a say on the management of the company or the allocation, which is left to the owner or a private administrator. Equity participation usually takes the form of share acquisition or convertible debentures in publicly listed companies, although BNDES also occasionally purchases subscription bonds, options and other derivatives products, as well as participating in asset-backed investment funds. Priority is given to innovative SMEs looking to strengthen their equity base and leverage private capital. Currently, BNDES has equity positions in 303 companies in Brazil.
- Venture and seed capital is also provided by BNDES directly and indirectly to start-ups and mid-stage firms by participating in private venture capital (VC) funds. The Brazilian VC industry is still very young and BNDES has been credited with launching the industry in 1991, through its pilot VC programme known as 'CONTEC' (Schapiro 2010: 20). The bank has also created a seed capital fund, in which it provides 50 per cent of the funds, and recently started a second, in which it will invest 25 per cent. BNDESpar the wing of the bank which is responsible for joint finance operations with the private sector has financed either directly or indirectly, half the VC-backed companies registered by the Brazilian authority for market regulation (CVM).
- Export finance and outward investment is available for companies seeking capital to export; BNDES will provide up to 60 per cent of the required investment. Exporting firms and Brazilian investors looking to invest in overseas markets are also offered advice and contracting support through BNDES's London and Montevideo offices.
- Non-reimbursable grants are occasionally made by BNDES to support social, cultural, educational, environmental, scientific or technological projects.

With the exception of the short-term loans that were disbursed on the Brazilian Treasury's request in 2008–09, the BNDES is engaged primarily in long-term financing. For debt-based finance, the average length of its existing loan portfolio is approximately seven years. It also offers loans with a repayment period of 25 years for big infrastructure and asset finance projects. Because of the long-term liabilities to which it is exposed, the bank takes great care when conducting due diligence and regular monitoring and post-hoc appraisal of its investments.

BNDES has also made efforts to know the sectors in which it operates very well and has staff equipped with the relevant technical, sectoral and local intelligence. This generates strong performance, which on many metrics is better than Brazil's commercial banks. The percentage of BNDES's non-performing loans is approximately 0.15 per cent, compared to 6 per cent on average for the commercial banks.

Governance

BNDES Ltd is formed of a number of separate bodies. These include Finame which finances infrastructure, asset purchases, sales operations, and exports and imports of machinery and equipment, and BNDESPar which is responsible for most business finance, including debt and equity purchases that include private sector participants.

Below this, the bank is divided into operational subdivisions, responsible for granting credit, follow-up and support aimed at corporate support activities. This includes its capital markets division, which is responsible for fundraising on the international and Brazilian capital and money markets, and the foreign currency division, which mitigates currency risk for Brazilian project developers seeking international finance but with costs in local currency. The bank has 2,500 employees.

The main strategic decisions are taken by the board of directors, which also has overall responsibility for the day to day management of BNDES Ltd. This consists of eight members: a president, vice-president and six managing directors, all of whom are appointed by the president of Brazil. Power is dispersed across the board, which limits the influence of any one board member. Even the president does not have the power to single-handedly give the green light to a loan.

BNDES's financial operations and management policies are overseen by three separate non-executive committees. The advisory board advises the bank's president on BNDES strategy and programmes, authorises budget allocations and offers opinions on the bank's performance. It also has the power to authorise increases in capital reserves. The audit committee reviews the bank's accounts, assesses independent and internal audits and makes recommendations to improve internal finance procedures. The fiscal council examines and makes pronouncements on BNDES's end of year and half-yearly financial reports and other financial statements.³³ Each of the three committees is made up of parliamentarians, civil servants and external stakeholders.

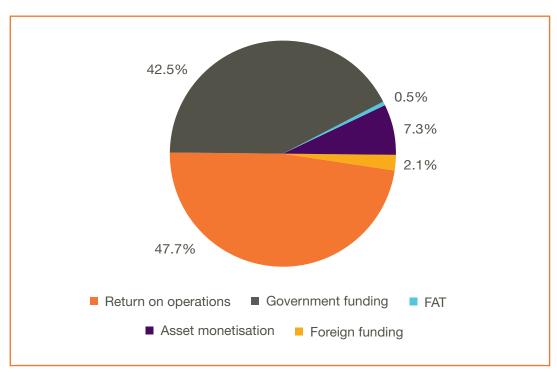
Capital base, fundraising and performance

When BNDES was set up, it was funded by a temporary extra income tax levy on Brazilian workers. Today, funds are acquired from a range of different sources. It can issue debt, guaranteed by the government, on the international capital markets (BNDES enjoys the same credit rating as the Brazilian Treasury) and its domestic market through BNDESPar. It also receives direct and indirect funds from the government (through tax breaks) and monies from a workers' assistance fund (*Fundo de Amparo ao Trabalhador* or FAT). This is a small constitutional fund, separate from government funds, with monies raised from a 0.07 per cent payroll tax on companies. An instalment of up to 40 per cent of the total fund's value is lent to BNDES which pays interest back to the fund. The remaining 60 per cent is used to pay for welfare policies including social housing, unemployment insurance and to pay a bonus back to its members.

³³ See http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Hotsites/Annual_Report_2011/Capitulos/governance/committee_members_and_duties/

In percentage terms, the FAT only provides a minute segment of BDNES's overall funding. Government funding is far larger, although data for 2009 (see figure A2.1) primarily reflects the credit line established by the Brazilian Government to enable BNDES to provide short term working capital to SMEs at the height of the financial crisis. The scale of demand for these funds was so high that BNDES could not lend against its existing capital base, hence the Government provided it with a credit line (with chargeable interest, i.e. not a grant). As sole shareholder of BNDES, the Brazilian Treasury is eligible to receive dividends, which the bank issues periodically.

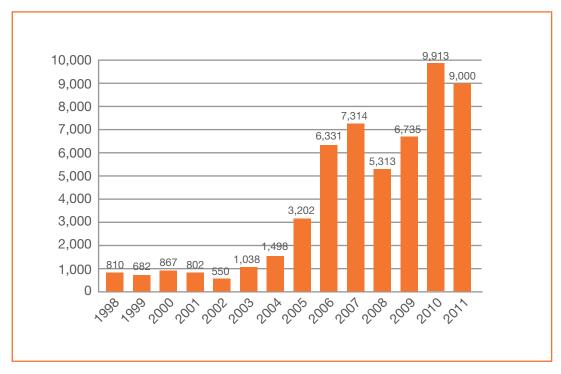
Figure A2.1 BNDES sources of funding



Source: BNDES: http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Corporative_Governance/Sources_of_ Funding/

It is important to note that in 2009 - despite this emergency liquidity funding from the government – BNDES's main funding source (47.7 per cent of the total) came from returns on its own operations (see figure A2.2). These returns have been built up over many years: net profit has increased from R\$ 1.5 billion in 2004 to R\$ 9 billion in 2011. In 2011, 94 per cent of gross profit was accounted for by the strong performance of the Bank's credit portfolio and from variable-income (i.e. revenue from dividends, return on equity and divestments).

Figure A2.2 Evolution of the BNDES's net profit (R\$ million)



Source: BNDES: http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/The_BNDES_in_Numbers/

BNDES's ability to finance a majority of its operations from returns built up on its own balance sheet is testament to its own high performance. This is enabled by having a dedicated team of experts, clearly defined corporate strategy and policies, and sophisticated risk-management processes. While it is not the bank's aim to maximise its profits - in fact, it is obliged to pass on the rewards of high performance to its customers through lower-interest loans - it nevertheless places primary importance on profit-making which is reflected in the commercial criteria governing its investments.

BNDES's net worth amounted to R\$61 billion and total assets were R\$625 billion at the end of 2011, a 13.8 per cent increase on the previous year. The bank's capital adequacy is also regarded as high - for every R\$100 of finance it disburses, the bank holds 20.6 per cent equity. This compares to 11 per cent equity required by the Brazilian Central Bank and 10.5 per cent required under the Basel III rules (4.5 per cent of common equity, 6 per cent tier 1 capital). In December 2011, 98.7 per cent of BNDES's loan transactions were classified as low risk (between AA-C rating) (BNDES 2012).

Lessons for the British Investment Bank

The BNDES holds a number of lessons for a would-be British Investment Bank. Arguably the most important concerns the design of the bank. BNDES attributes much of its good performance to the broad scope of its remit. Financing infrastructure and businesses of all sizes, including key industry sectors in which Brazil has a comparative advantage enables the bank to diversify risk across its portfolio. It also enables the bank to cross-subsidise higher-risk activities by passing on the low-cost of capital it can raise for non-risky infrastructure projects to higher-risk SME loans.

Like the KfW, BNDES's speciality is offering long-term fixed-rate finance (debt and equity). This allows it to differentiate itself from commercial lenders, who dominate the short-term credit market. By focusing only on long-term loans, the BIB would be able to demonstrate that it is filling a gap in the lending market and genuinely adding value. It would also counteract the short-term trends prevalent in UK banking and help shift finance towards serving the goals of patient capital and sustainable investment in British business.

Finally, thanks to the cultivation of its portfolio over many years and sound investment principles, the BNDES has built up and retained a steady stream of profits and strong capital base. In effect, it has become a largely self-financing institution. Provided the right investments are made, there is no reason why the BIB should not be self-sustaining too after an initial capitalisation and a period of fundraising on the capital markets. Like BNDES, the BIB would have the power to channel profits back into the bank and use them to lower the cost of finance to its customers. Also, like BNDES, it could pay occasional dividends to its shareholder, the Treasury. The key point here however is that once the bank is mature and is financing investments that generate steady, stable returns, it would not necessarily have to access the capital markets or other sources of funding frequently.

APPENDIX 3: US SMALL BUSINESS ADMINISTRATION (SBA)

Overview

The SBA was created in 1953 in order to provide financial support to entrepreneurs and small businesses. Its primary function is to boost lending to SMEs and start-ups and equip them with the funds they need to get off the ground and consolidate their businesses. However, unlike the KfW and BNDES, the SBA is not a bank, but rather a government agency.

Due to its status as a government agency, the SBA holds other important policy and political functions. These include being the principal body advocating for the interests of small business in the US. The SBA proposes policies and laws to be considered in Congress and lobbies other US political institutions, including the White House, on behalf of the small business community. It also sponsors SME policy initiatives (such as 'Startup America'³⁴); helps secure government procurement contracts for small businesses; and acts, in its own words, as their 'national ombudsman'. Whenever a small business feels that it is being targeted unfairly by a federal agency (such as excessive fines and investigations), the SBA looks into each claim individually and produces an independent judgment. This is part of its agenda to reduce the burdens small businesses face.

Since the onset of the recession, the SBA has grown in stature and President Obama has granted the agency greater powers. These were cemented in the Recovery Act of 2009 and the Small Business Jobs Act of 2010. The SBA has also seen a boost in federal funding to support SMEs. For the 2012 financial year, the SBA was allocated \$985 million in federal funds, a rise of 19 per cent on the 2010 budget.

This budget increase is partly due to growing demand among small businesses for SBA products and services, following a brief lull in activity in the aftermath of the financial crisis. New lending supported by the SBA in 2011 totalled \$30.5 billion, the highest volume in its 60-year history (SBA 2011). Looking ahead, the agency has set itself the goal of supporting the disbursement of \$74 billion in approved loans between 2011 and 2014 (SBA 2011).

Programmes and services

To carry out its primary purpose – improving access to finance for start-ups and entrepreneurs – the SBA offers a wide range of programmes. First and foremost, it helps provide competitive loans to small businesses, principally through guarantees. SBA-backed loans typically involve the private sector (either a commercial bank or other investment vehicle) providing at least half of the loan, which is part-guaranteed by the SBA. The remaining segment of the loan is usually covered by a smaller investment from an agency backed fully by the SBA and a small amount of funds from the business owner (either equity or independent funds). The SBA itself does not therefore make loans, but guarantees parts of loans offered to small businesses by private lenders or organisations, and charges a small fee for this service. The only exception to this is the microloan programme, under which the SBA provides funds via an intermediary lender.

- 34 Startup America is a White House initiative launched in January 2011 aimed at entrepreneurship in America. It essentially calls for more access to finance for entrepreneurs while reducing the regulations they face. It is similar to the 'Startup Britain' initiative launched in March 2011. For more information see http://www.whitehouse.gov/economy/business/startup-america.
- 35 As Tott (2012) points out, the model is similar to BIS' Enterprise Finance Guarantee programme in the UK, although the terms of the scheme differ (the SBA offers a more diverse range of targeted loans, as well as larger loan amounts with longer maturities) while the scale of the programme in the UK is much smaller.

The SBA offers through its intermediaries and working with private sector partners debt finance, equity and venture capital, and grants. In terms of debt finance, the SBA offers four main products:

- 1. **MicroLoans** are small, short-term loans aimed at providing start-ups with an initial capital injection to help them get off the ground. The maximum loan available is \$50,000 and the average is around \$13,000. The SBA makes funds available to intermediary lenders, which are often non-profit community organisations. The loan cannot be used to pay off debt, or buy real estate.
- 2. 7(a) loans are made available to businesses which may not normally qualify for bank funding (for example due to lack of collateral or a track record) and are the most basic and commonly used type of SBA loans. They are also very flexible, and can be used for different purposes, such as procurement, real estate and debt refinancing. Most American banks and some non-bank investors take part in the programme: they provide most of the money up front and receive a guarantee from the SBA when handing out the loan. The SBA will typically guarantee as much as 85 per cent of loans of up to \$150,000 and 75 per cent on loans of more than \$150,000, although in 2009 President Obama temporarily increased this to 90 per cent. 7(a) loans have a maximum loan amount of \$2 million (hence SBA's maximum exposure is \$1.5 million), while their duration is up to 10 years for working capital and 25 years for fixed assets. 'SBAExpress' loans have a maximum guarantee of 50 per cent, which is due to the nature of the product (the SBA justifies this on the basis that SBAExpress loans do not permit it the time to conduct the same level of due diligence as other loans). The SBA also offers 7(a) loans specifically catered for businesses seeking to export, as many US banks do not provide working capital on export orders. Other loans are aimed specifically at rural lenders, pollution control efforts, international trade and initiatives providing new employment opportunities in small businesses.
- 3. **CDC/504 loans** provide funding that is secured partially by a private investor, and completed by a certified development company (CDC). CDCs are private non-profit companies set up to support economic development in local communities. The CDC portion of the loan is fully guaranteed by the SBA.
- 4. **Disaster assistance loans** provide emergency funds and assistance to small businesses in the event of an unforeseeable disaster that has left the business unable to operate. This usually involves a very low-interest loan, offered under very specific conditions. In 2011, disaster assistance loans received the largest allocation of SBA funds, despite fewer disaster assistance loans being issued than 7(a) loans.

It is important to note that the loans provided by, or guaranteed by, the SBA have slightly higher interest rates than those available through commercial banks in order to keep lenders interested. They are also only available to businesses that are creditworthy, so those with a poor credit history will still not be able to borrow a SBA-issued loan. However, the goal of the SBA is not to provide loans to businesses with poor credit ratings but rather to make sure neglected businesses get a chance of securing finances.

The SBA also channels equity and venture capital to viable small businesses via intermediaries known as Small Business Investment Companies (SBICs), and has a small programme of grants. The following three initiatives are the most important:

- 1. The New Market Venture Capital (NMVC) programme provides funding to 'NMVC companies' newly formed private venture capital investment funds to enable them to make equity investments in small companies that are predominantly located
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in so-called 'Low-Income Geographic Areas'. NMVC companies are privately run, but are required to follow SBA guidance and regulations in order to gualify for funding. This includes ensuring that investments are made in small firms that have demonstrable job and wealth creation prospects in deprived communities across the US.

- 2. The Programme for Investment in Micro-Entrepreneurs (PRIME) provides funding to various types of private or non-profit organisations which invest in microentrepreneurs, especially disadvantaged ones, who lack sufficient training and education to set up a business on their own. This funding comes in the form of an annual grant of up to \$250,000, and is awarded to micro-enterprise development organisations working in diverse areas (rural, urban and with Native American tribes). A project that receives match funding can receive PRIME funding for a maximum of five years.
- 3. The Small Business Investment Companies (SBICs) programme is the main equity finance lever the SBA has at its disposal to support small businesses in need of alternatives to debt financing. The structure of the programme is unique in that SBICs are privately owned investment funds, licensed and regulated by the SBA, which use their own capital (usually around \$5-10 million) plus funds borrowed with an SBA quarantee to make equity investments in qualifying small businesses. The SBA guarantee enables the SBICs to leverage additional funds at a ratio of up to 3:1 (hence up to \$30 million funds can be secured). Since a significant portion of the funds are privately owned, it gives the SBIC a strong incentive to make a financial return and carry out wise investments. SBICs also provide some long-term loans and management assistance to qualifying small businesses.

Only companies defined by the SBA as 'small' are eligible for SBIC financing - that is firms with a net worth of \$18 million or less and average after-tax net income of less than \$6 million. There are a number of exemptions governing where the SBICs may or may not invest. For instance, SBICs may not invest in other SBICs, finance and investment companies, or companies with less than 51 per cent of their assets and employees based in the United States.

The SBIC scheme is intended to be revenue neutral for the government. This is achieved in the form of periodic debenture payments levied on SBIC investments, which are payable to the SBA. The debentures are periodically pooled and sold to private investors on the public markets, thus maximising the net revenue of the investments. The public purse further benefits from the activities of the SBICs, as the tax revenue created by the investments tends to be greater than the cost of the programme, thereby benefitting the whole economy. There are over 300 SBICs currently operating in the US which helped 1,339 businesses last year, providing \$2.8 billion worth of investment.

In addition to the programmes mentioned above, the SBA also offers special services to businesses it deems are at a social disadvantage, such as women-owned, Native American-owned, veteran-owned and minority-owned businesses. This includes offering advice, providing representation as well as making available more tailored loans to these groups. It does this through its programme, which is mandated by section 8(a) of the Small Business Act, providing support to eligible small businesses. The support is not only financial as the SBA also helps to train, procure for and advise businesses through the 8(a) programme. There are also similar programmes designed for specific age groups, such as youth and 50+ entrepreneurship programmes.

The SBA has also established a network of Small Business Development Centers (SBDCs) across the US. SBDCs are a cooperative effort on the part of the private sector, educational community and federal/local governments to provide advice and information to small businesses. This is part of the SBA's training and counselling service, which also features the SCORE initiative – a non-profit grouping of business counsellors providing free guidance to local businesses. In 2011, \$136 million of SBA funds was allocated to the SBDCs (see table A3.2).

Another feature of the SBA is the role it plays in procurement and securing contracts for small businesses. The SBA has the power, as set out in its Goaling programme, to negotiate with the federal government for contracts in all areas and industries. It also works with state governments to secure procurement opportunities for small firms on specific projects and their supply chains, and issues grants of up to \$2 billion, under its Small Business Technology Transfer programme for small businesses to take part in government-led R&D projects. As a part of the SBA's contracting role, it also regulates and implements the HUBZone (Historically Underutilised Business Zones) scheme which is similar to enterprise zones in the UK albeit with two important differences. First, Hubzones are, as the name suggests, economically underdeveloped locations. Second, the principal 'carrot' used to attract firms to these areas is the promise of federal procurement opportunities. In order to qualify for HUBZone benefits, businesses must have offices in the area in question and must provide evidence that it employs local people.³⁶

Governance

The SBA is a government agency, rather than a stand-alone bank, putting its relationship with the US federal government at the centre of its work. The SBA works directly with certain national departments in producing policies that affect small businesses – which involves sponsoring and initiating new laws or ideas for future laws.

The SBA works directly with local and state-level governments in the implementation of Small Business Development Centers and in areas such as procurement. Local governments provide expertise and insight to small businesses, which can be essential in making the most of the SBA resources available to new entrepreneurs.

The SBA itself is led by an administrator, who is appointed by the US president. The current administrator, the 23rd since the SBA was founded 60 years ago, is Karen Gordon Mills who was appointed by President Obama in April 2009. The administrator, whose principal role is to oversee the management of the agency and develop SBA policy, sits in the president's cabinet advising him on economic and small business matters. Below the administrator and deputy administrator (also nominated by the US president) are the various offices and sub-offices of the SBA. These include the Office for Capital Access, which is tasked with running the various debt financing guarantee programmes offered by the SBA, the Office for Investments and Innovation, which is responsible for running the SBIC programme, and the Office of Field Operations, which is the contact point in Washington for the SBA's network of regional and district offices.³⁷

³⁶ See http://www.sba.gov/hubzone/

³⁷ See http://www.sba.gov/sites/default/files/SBA%20Organization%20Chart%2003-16-2012.pdf

The SBA's internal finances and accounts are the responsibility of the chief financial officer, who sits in the Office of Performance Management, while much of the SBA's advocacy and public affairs work is conducted by the Office of Congressional and Legislative Affairs.

Performance and capital base

In 2011, the SBA's total assets stood at \$16.9 billion while its overall loan portfolio stood at \$99.2 billion an increase of 6.3 per cent on the previous year (see table A3.1), and up from \$88 billion in 2008. In addition, the agency's net financial position and net cost of operations has also improved compared to the previous year

Across the range of indicators used to monitor SBA performance, there are signs that appetite for SBA products and services is growing again. Both in terms of the number of SBA-backed loans made and their value, the results for 2011 are an improvement on the previous few years and very nearly at the same level as they were in 2008, prior to the financial crisis. One exception is the SBA's advice and training services, for which slightly fewer businesses received support in 2011 compared to the previous year.

Table A3.1 SBA financial overview 20111

(Dollars million)	FY 2011	FY 2010	% Change
Loan Portfolio ²	\$99,204	\$93,340	6.3
Equity Total Assets	\$16,883	\$15,230	10.8
Total Liabilities	\$17,192	\$16,765	2.5
Total Net Position	\$(309)	\$(1,535)	
Total Net Cost of Operations	\$3,461	\$5,277	

- 1 SBA received an unqualified opinion with no material weaknesses on its FY 2011 financial statements audit.
- 2 The total portfolio consists of guaranteed loans outstanding, defaulted guaranteed business loans receivable, direct disaster loans, and direct business loans receivable.

Source: SBA: http://www.sba.gov/sites/default/files/FIY%202011%20Summary%20of%20Performance%20and%20 Financial%20Information.pdf

In terms of 7(a) loans, the most commonly issued by the SBA, the total value of SBAbacked funds disbursed in 2011 was greater than in previous years (approximately \$19 billion in 2011, compared to \$12 billion in the previous year) and more SBA-backed loans were approved (53,706 in 2011 compared to 47,000 in 2010). The same results feature across the board, where the SBA has loaned more money and approved more loans than in the previous two years. In microloans, the results show that the SBA approved more loans and lent more money than in all previous years, including 2008.

The same results can be seen with SBICs, where the dollars invested in small businesses from SBICs was higher than all previous years (including 2008) and the number of businesses assisted was higher than in 2010. Contracting services also showed positive results; thanks to the SBA, 22.7 per cent of all government contracts were awarded to small businesses in 2011, compared to 21.5 per cent in 2008.

The SBA's performance is equally impressive when one compares the federal funds committed to individual loan programmes in 2011 with the total value of SBA-guaranteed loans disbursed in the same year. Thus, the agency was able to disburse SBA-guaranteed 7(a) loans worth a total of \$19 billion. This demonstrates the benefit of the guaranteebased model, used by the SBA, in that only a small amount of actual funds need to be committed to yield significant results.

Table A3.2 SBA budget resources for 2011 (dollars thousand)

Programme ¹	FY 2011	FY 2010	% Change
Disaster Assistance	\$253,428	\$248,669	1.9
SBDCs	\$136,323	\$128,232	6.3
7(a) Loans	\$83,000	£95,090	-12.7
8 (a) Programme	\$58,274	\$56,817	2.6
504 Loans	\$38,888	\$36,232	7.3
Prime Contracting	\$22,663	\$26,136	-13.3

Notes

Source: SBA: http://www.sba.gov/sites/default/files/files/FY%202011%20Summary%20of%20Performance%20and%20Financial%20Information.pdf

Lessons for the British Investment Bank

While the system of guarantees used by the SBA is attractive for the simple reason that less actual capital is needed than with standard debt products or variants, such as the KfW's on-lending model, there are several concerns with this model. Chief among them is the trade-off created by the need to encourage private sector participation to provide credit in the first place. The SBA achieves this by taking on a very large proportion of the liability (up to 85 per cent for some 7(a) loans) in the event that the business defaults on its loan or ceases to become creditworthy. However, this introduces an element of 'moral hazard' for the banks and consequently they might be inclined to conduct lax diligence and approve businesses that are not creditworthy.

Second, by charging a small fee to the commercial banks for guaranteeing the loan, there is a risk that the bank will simply pass this on to the borrower. As a result, the cost of lending for the business may be higher than conventional market loans (Tott 2012). This problem is also encountered by the KfW, however it could be argued that in both the case of the KfW and SBA the provision of secure, long-term loans with competitive interest rates and (in the case of the KfW) repayment holidays, makes up for the inconvenience of the fee. Nevertheless, a BIB that operated a system of guarantees would need to be designed carefully so as not to raise prohibitively the cost of finance for businesses.

Third, in part because of its well-intentioned focus on assisting businesses in disadvantaged areas that cannot obtain loans from the commercial banks, in some cases SBA support might be the sole reason why those businesses manage to stay afloat. 7(a) loans can be used simply to refinance debts and there is no requirement that they are used to enable business expansion, capital investment or the hiring of new employees. This could potentially mean that precious funds are being drawn away from genuinely viable job creators to maintain uncompetitive firms.

Despite these drawbacks, there are a lot of positive lessons a prospective BIB can learn from the SBA. Among other things, the SBIC programme offers an interesting model for structuring equity investments. Not only is it revenue neutral, the SBIC scheme also removes some of the moral hazard associated with the SBA debt guarantees, by requiring

¹ The following programmes represent more than 75 per cent of SBA's total budgetary resources for FY 2011.

private fund managers running individual SBICs to take first losses on any investments (Tott 2012). In addition, businesses that have received investment from the SBIC may also benefit from the professional advice and assistance provided by its new shareholder. SBICs tend to rally around the business and seek to contribute to its success as much as possible to make sure they see a good return on their investment (although safeguards are needed to ensure that this shareholder profit motive is not pursued at the expense of long-term, healthy growth of the business itself). Equipped with an equity base and shareholder expertise, businesses may also be in a better position to secure government contracts.³⁸

Finally, the SBA is genuinely rooted and well connected at the regional and local level through its system of district and regional offices, and close links with state governments. It also tailors schemes at the regional level, such as its support for CDCs and HUBZones. When thinking about the operation of the BIB, it will not only be important for its products and services to be suitably tailored across the different regions of the UK, but its fund managers will have to have a high level of local intelligence. This will require institutional collaboration with Local Enterprise Partnerships (or any future regional development bodies), local chambers of commerce and other public, private and civic organisations at the local and regional level.

³⁸ http://www.governmentpro.com/small-business-investment-company/understanding-the-pros-and-cons-of-sbic-funding/

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