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Working Paper

Taking a National Investment Bank Forward

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This paper builds on a strong body of work in the development bank space and takes the National Investment Bank proposal by Labour's Shadow Chancellor John McDonnell forward. A National Investment Bank (NIB) must coordinate with other key economic institutions, each doing their part in the support of sustainable economic growth in order to fulfil its mandate. Here we outline the rationale of a mandate of the proposed NIB taking into account the work of previous authors and their insights. The main aims of an NIB would be:

Addressing the long-term funding gap for small and medium-sized enterprises across the country, emphasizing innovation and sustainability;

Addressing the long-term funding gap for infrastructure investment across the country, including both physical and social infrastructure.

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Executive Summary

This paper builds on a strong body of work in the development bank space and takes the National Investment Bank proposal by Labour's Shadow Chancellor John McDonnell forward.

A National Investment Bank (NIB) must coordinate with other key economic institutions, each doing their part in the support of sustainable economic growth in order to fulfil its mandate.

We outline the rationale of a mandate of the proposed NIB taking into account the work of previous authors and their insights.

- Addressing the long-term funding gap for small and medium-sized enterprises across the country, emphasising innovation and sustainability;
- Addressing the long-term funding gap for infrastructure investment across the country, including both physical and social infrastructure.

The NIB's role will be much more than financing of infrastructure and small and medium enterprises.

Infrastructure development will not only need to be supporting the decarbonisation of the economy, but be done using best practices.

The NIB should be as much technical expert as it is financier. It is with that expertise the NIB should champion best practices. This can start from how it raises funds - from local and global investors intent on supporting the infrastructure around clean technologies and decarbonisation and social development, as well as – investing in SMEs - the productive sector of the economy - the promotion of SME business digitisation, sustainability and decarbonisation.

The NIB modelling itself on international best practice for investment in infrastructure will be expert in project development encompassing engineering skills, project management, planning, environmental sciences, outsourcing and contractual issues.

The NIB's other mission is supporting small and medium enterprises (SMEs), especially but not only innovative ones. It will provide financing, training, skills support and business information to SMEs. The institutional structures for this role requires a reach into all regions of the UK with a proposal for Regional Development Banks (RDBs) - all connected to the NIB. This regional presence and linking with Local Enterprise Partnerships and their Growth Hubs will support the development of a more focused and funded local presence.

Combining local expertise and the use of data sciences across the coordinated economic instutitions (see Diagram 1) will help the NIB and RDBs bridge the information asymetry faced by SMEs. We outline how this might happen.

The development of the coordinated economic instutions (see Diagram 1) and the regional and local presence of the NIB and other institutions seeks to address the issue of the limited funding and decision making available to the UK regions under the existing economic model. Concurrently the structure of the economic instutions gives the NIB a macro level view of the economy, business and science.

We outline the legal and capital structure of the proposed NIB and the skills required to run it. The board and management structures for the NIB and RDBs are based off other development bank models but also with additional emphasis on data sciences skills.

We set out briefly the international experience of types of funding that an NIB could seek to do including the set up of investment funds and co-investment models as additional means of deepening the availability of finance to the infrastructure and SME space.

Part One: Background

In July 2016, Shadow Chancellor John McDonnell announced that Labour in governnment would establish a National Investment Bank, along with a network of regional development banks.[1] A later paper for the Labour Party, A *National Investment Bank for Britain: Putting Dynamism into our Industrial Strategy* (here known as the "Outline Paper"), expanded upon McDonnell's proposal.[2] That Outline Paper sketched a framework for the National Investment Bank. The *Financing Investment:Final Report* was later written for Labour, developing the theme of financing investment for a transformation of the economy.[3] In the following paper, we aim to extend and deepen the analysis of the National Investment Bank within the context of the need for wider economic transformation.

Our goal is to develop the framework for implementing a National Investment Bank, learning the lessons from a vast international experience.

Part One of the paper briefly restates the case for a National Investment Bank. Much policy-related work has already been done in recent years on a state investment bank. Recent work includes publications by Mariana Mazzucato and Laurie Macfarlane, Stephany Griffith-Jones and José Antonio Ocampo, Stephany Griffith-Jones and

[1] See https://www.theguardian.com/politics/2016/jul/18/labour-vows-to-set-up-national-investment-bank-to-mobilise-500bn. Elgot. J., (2016), Labour pledges National Investment Bank to mobilise £500bn, *The Guardian* [online], 18 July 2016. Available from: https://www.theguardian.com/politics/2016/jul/18/labour-vows-to-set-up-national-investment-bank-to-mobilise-500bn. [Accessed 11/01/19].

[2] The Labour Party, (2016),*A National Investment Bank for Britain: Putting Dynamism into our Industrial Strategy*",. Available from: https://labour.org.uk/wp-content/uploads/2017/10/National-Investment-Bank-Plans-Report.pdf. [Accessed 11/01/19]. This was a report to the Shadow Chancellor of the Exchequer and Shadow Secretary for Business, Energy and Industrial Strategy in regard to Implementation.

[3] GFC Economics and Clearpoint Advisors Limited., (2018), *Financing Investment: Final Report*, June 2018 https://labour.org.uk/wp-content/uploads/2018/06/Financing-investment-final-report-combined.pdf. Available from: https://labour.org.uk/wp-content/uploads/2018/06/Financing-investment-final-report-combined.pdf [Accessed 11/01/2019].

Natalya Naqvi, Graham Turner and Peter Rice (and associated authors), and the Institute for Public Policy Research.

Part Two elaborates on the objectives of a National Investment Bank and how best to deliver them with reference to other countries' experiences and a summary of the key elements of an effective National Investment Bank.

Part Three focuses on the National Investment Bank's structure, governance, capacity and instruments. First and second-tier loans are analysed, as are loan guarantees, and equity.

The case for a National Investment Bank restated

The case for National Investment Banks has been made in many other places and we do not attempt a comprehensive review of the arguments here; the focus of this paper is on taking the National Investment Bank proposal by Labour ("the National Investment Bank") forward, and addressing with some degree of specificity *how* the Bank will be set up and designed.

An immediate advantage for a National Investment Bank is its ability to raise funds at close to gilt rates. This gets us away from the inefficiency of financing through the flawed private finance initiative (PFI) model. The case for infrastucture funding and small and medium enterprise financing is in our view made. Therefore the analysis should shift to the means of financing at the most efficient rate. Gilt investors understand the value of supporting the productive sectors of the economy and the need for a coordinated industrial strategy that promotes growth and productivity.

It is worth reiterating the other factors that support the National Investment Bank, which can be made both in terms of addressing market failure and supporting structural transformation. One rationale is that it can address the market failure in the asymmetry of information between providers of debt and business borrowers, as noted in Nicholas Tott's 2012 review for the UK Labour Party.[4] As Tott observed, debt

[4] Tott. N, (2012), *The Case for a British Investment Bank: A Report for Labour's Policy Review*. Available from: https://www.policyforum.labour.org.uk/uploads/editor/files/BRITISH_INVESTMENT_BANK.pdf [Accessed 11/01/19]. See also the pioneering article by Stiglitz. J. E., & Weiss,. A, (1981), Credit Rationing in Markets with Imperfect Information' *American Economic Review*, 71(3), 393–410. By

providers can generally only access information about a business's track record (both in terms of market success and ability to obtain collateral).[5] That information is a flimsy foundation for whether a business is high or low-risk. Furthermore, that information is relatively limited. A National Investment Bank would take advantage of the coordinated approach of the proposed industrial strategy institutions to access greater information: for example, by drawing on economic data at a national and regional level with information gathering at the local level to support small and medium enterprise (SME) financing. The National Investment Bank would recruit specialist expertise; maintain records over the long-term; and collaborate with other government departments. It will need a regional and local presence, addressed later in this paper.

A second underlying market failure is the lack of competition in credit markets. A small number of large banks dominate the small and medium-sized enterprise (SME) lending landscape in most developed economies. Their practices are less disciplined by the forces of competition. A National Investment Bank can be a corrective to such practices: The competition model pursued through the encouragement of 'challenger banks' has not solved or supported the SME lending market, due to the upfront costs of developing SME relationship management skills, perceptions of risk and regulatory capital costs.[6] There has been ongoing tension between a bank's capital requirements under the Capital Requirements Directive (2013/36/EU) and the Capital Requirements Regulations (EU 575/2013). Since the financial crisis). In fact, banks have had to increase capital to meet the Prudential Regulation Authority's rules. This can be achieved by increasing capital and/or reducing capital usage. Banks have used both approaches and this has lead to deleveraging by the reduction of loans to the market especially SME loans that are more capital intensive, in regulatory terms, than for example mortgage lending.[7]

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referring to 'market failure' we do not want to be taken to assume that government intervention in markets can only occur in circumstances of market failure.

[5] See Tott. N, (2012), *The Case for a British Investment Bank: A Report for Labour's Policy Review*. Available from: https://www.policyforum.labour.org.uk/uploads/editor/files/BRITISH_INVESTMENT_BANK.pdf [Accessed 11/01/19].

[6] Challenger banks have to a great extent focused on retail banking where they can value add with their more customer focused apps, making use of the data they collect; turning it into useful information for customers and the bank. Their more efficient business processes and less need for bricks and mortar branches make this a lower cost business operation suitable for retail banking.

[7] Bank of England, Banking Sector regulatory capital statistical release 2018 Q1. https://www.bankofengland.co.uk/-/media/boe/files/statistics/banking-sector-regulatory-

The improvement in UK bank capital ratios has been largely met by borrowing and deleveraging of risk weighted assets; not the result of a strong rise in retained earnings.[8] This is indicative of an uncompetitive business model; not meeting the needs of the SME market; struggling to invest in the kind of transformation of their businesses.[9]

Such undue deleveraging and risk-averse behaviour might be particularly prevalent in years following financial crises. A National Investment Bank could play a countercyclical role in these circumstances, as well as provide the patient long-term capital needed for much investment, especially for structural transformation.

Third, relatedly, banks can be unduly risk-averse. UK banks have lagged in data curation and analytics – partly because of information technology legacy issues. They have created information 'silos', which are proving difficult to resolve and is a fundamental competitive weakness. A National Investment Bank's adoption of data sciences and analysis to enhance their credit processes and understanding of markets would drive competition in the UK. The larger technology firms (Amazon, Alibaba, Baidu and PayPal) mostly outside of the UK are already doing this as they slowly break into the banking sector. The UK is behind on this trend.

Fourthly, markets can be insufficiently coordinated in the delivery of socially valuable goods. It is possible to trust that markets are capable of providing socially valuable goods, while still maintaining that markets are rarely completely coordinated, leaving inadequate provision of public goods and services necessary for a decent society. A National Investment Bank adopts a bird's-eye view, and with connections to other institutions and policy agencies proposed in *Financing Investment: Final Report*, can allow for these inadequacies – for instance, the provision of environmentally friendly technologies – to be corrected.

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capital/2018/2018-q1.pdf?la=en&hash=30E6399447274E263900F3338191D4E30BC22788 [Accessed 11/01/19]

[8] GFC Economics and Clearpoint Advisors Limited, (2018),See '*Financing Investment: Final Report*', GFC Economics and Clearpoint Advisors Limited, Available from: June 2018 https://labour.org.uk/wp-content/uploads/2018/06/Financing-investment-final-report-combined.pdf [Accessed 11/01/19].

[9] This is sub-optimal for the wider economy because of the key role banks play in the provision of credit. The banks need a robust reinvestment programme to play their role in an economy that itself needs the type investment a National Investment Bank and Labour's proposed national transformation fund could do.

There are many cases where markets are unwilling to assume risks, due to uncertainty, for example in new products or new sectors. This is illustrated by systemic underinvestment by the UK private sector. Small and medium sized enterprises have faced a longstanding lack of funding. Productivity is stagnant.

Structural economic reforms in the 1980s and 1990s have not achieved promised growth paths. All of these factors led Nicholas Tott, former partner at Herbert Smith LLP, to say: "after working for many years on infrastructure investment and business financing I believe that there are significant and long-standing problems in the UK."[10]

States can create and shape markets, as well as fixing them, and a further rationale for a National Investment Bank is to provide a corrective and complement to markets affected by financialised capitalism.[11] The UK economy's private sector activity has failed to deliver support for core infrastructure and small and medium enterprises, including in a way that respects environmental limits; a National Investment Bank can help to usher in the economic transformation needed to achieve those important social, economic, and environmental goals.

Some might consider a National Investment Bank to involve too much steering of the economy by government. But it is hard to find a government that does no industrial policy at all. Every investment will have some bearing on who wins in particular industries; investments in road building favour some industries or regions over others, for example, as do investments in tertiary education. As a matter of historical fact – and as Mariana Mazzucato has pointed out – government investments have been crucial to the development of general purpose technologies, including the internet, biotechnology, nanotechnology, amongst others.[12]

A National Investment Bank can play an important role in driving structural transformation. Its investment projects can have a 'crowding-in' effect for private

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[10] Tott. N., The Case for a British Investment Bank, p.2.

[11] Mazzucato. M. & Penna,. C. R, (2018), National Development Banks and Mission-Oriented Finance for Innovation, in Griffith-Jones. S. & Ocampo. J. A., ed., *The Future of National Development Banks*, Oxford University Press, pp. 257

[12] Mazzucato. M., (2013), The Entrepreneurial State: Debunking Public vs Private Sector Myths'Myths,Anthem Press.. See also Singer,. P. L., (2014), Federally Supported Innovations: 22 Examples of Major Technology Advances That Stem from Federal Research Support,The Information Technology & Innovation Foundation, 2014). Available from: http://www2.itif.org/2014-federally-supported-innovations.pdf [Accessed 21/01/19].

sector investment opportunities which boost multiplier effects. Done well it will increase the the potential growth path of the economy.

The UK government is already playing an active role in shaping who wins in the economy, through its industrial strategy, sectorial policy, and Department of Business, Energy, and Industrial Strategy (though the UK government's current industrial strategy is, in our view, insufficiently ambitious and radically under-funded).

The important debate is therefore not about *whether* a government should invest, but *how* it should invest in the economy. That is the focus of the remainder of this paper.

The Outline Paper on a National Investment Bank

The Outline Paper proposed that a National Investment Bank be funded initially by a £20 billion initial bond issue. The Bank, it said, would have a Supervisory Board of Directors and an Operating Board. Most importantly, its mandate – set out in articles of association – would be to focus on five areas:[13]

- Addressing the long-term funding gap for small and medium-sized enterprises;
- Addressing the long-term funding gap for infrastructure investment, both physical and social;
- Addressing the long-term funding gap for technological and institutional progress and innovation;
- Any other areas assigned to the National Investment Bank by the Government including organisations providing socially valuable services; and
- Addressing the long-term funding gap for small and medium-sized enterprises and high-value local projects in regions outside of London and the South-East.

The Outline Paper indicated that the Bank could help develop broader public policies, with financing being the principal tool. However, its activities would have to be consistent with government policies.

The Bank's possible tools were described broadly: it could make, facilitate, engage in, and encourage investment, lending, and related activities. It could lend money, provide grants, invest money in particular assets (including securities), provide guarantees, and grant or provide other financial products.

[13] The Labour Party, A National Investment Bank for Britain: Putting Dynamism into our Industrial Strategy, p. 9

Recent relevant work on a National Investment Bank

Since 2016 there has been considerable policy-relevant writing on a National Investment Bank for the United Kingdom, building on existing academic work.

A December 2017 paper by Mariana Mazzucato and Laurie MacFarlane, focused on how a UK National Investment Bank might provide patient strategic finance.[14] It reviewed six National Investment Banks in order to draw out lessons for the UK. The review revealed interesting variation in the mandates of different banks: Germany's Kreditanstalt für Wiederaufbau (KfW) explicitly focuses on energy transformation, Brazil's Banco Nacional de Desenvolvimento Econômico e Social (BNDES) prioritises less developed regions in Brazil, Italy's Cassa Depositi e Prestiti (CDP) addresses 'skills' as one of four core values, and the Nordic Investment Bank has 'cooperation' as one of its core values. It also examined past UK initiatives, such as the Industrial and Commercial Finance Corporation (privatised in 1994 to become 3i)[15], the Green Investment Bank (privatised in 2017), the British Business Bank, the Scottish Investment Bank, and the Scottish Futures Trust.

Stephany Griffith-Jones and Natalya Naqvi's June 2018 discussion paper[16] tracked the resurgence of interest in National Investment Banks since the 2008 global financial crisis. It underscored the need for sufficient scale, noting that if the UK's National Investment Bank was to have per capita lending capacity comparable to the KfW, it would need lending capacity of around £37 billion per annum, requiring £40 billion equity. The paper also pointed out that a National Investment Bank's loans would not

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[14] https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp_wp_2017-05_patient_strategic_finance-_opportunities_for_state_investment_banks_in_the_uk.pdf Mazzucato. M. & Macfarlane. L., (2017), *Patient strategic finance: opportunities for state investment banks in the UK,* UCL Institute for Innovation and Public Purpose. Available from: https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp_wp_2017-05_patient_strategic_finance-_opportunities_for_state_investment_banks_in_the_uk.pdf [Accessed 21/01/19].

[15] Jones. D. M., (2010), *The Industrial and Commercial Finance Corporation: Lessons from the past for the future'*, *Civitas*, p 3. Avaibale from: http://www.civitas.org.uk/pdf/ICFC.pdf [Accessed 21/01/19]. "In 1945 the Industrial and Commercial Finance Corporation (ICFC) was founded to provide finance for small and medium sized firms and in the same year the Finance Corporation for Industry (FCI) was established to focus on large companies. They were merged in 1973 to form Finance for Industry (FFI) .... By the 1980s the character of FFI had altered for the worse but for some 30 years after World War Two the ICFC and its successor provided an invaluable service that has been missing ever since."

[16] https://peg.primeeconomics.org/policybriefs/template-krh2j Griffith-Jones. S., & Naqvi. N., (2018), Labour's National Investment Bank – a valuable initiative, *Progressive Economics Group*. Available from: https://peg.primeeconomics.org/policybriefs/template-krh2j [Accessed 19/01/2019].

need to count towards public deficit or debt targets, consistent with Germany's approach through KfW, as well as that of other countries.

Financing Investment: Final Report, also released in June 2018, developed the idea of a Strategic Investment Board (now to be called the Sustainable Investment Board) as a main coordinating body for the government industrial policy institutions, including the National Investment Bank.[17] It noted that a National Investment Bank could support productivity growth, and proposed that the Bank be based in Birmingham (along with the Bank of England, the Sustainable Investment Board, and the National Transformation Fund).

The Institute for Public Policy Research's lengthy September 2018 report, *Prosperity and Justice: A Plan for the New Economy*, dedicated a section to the National Investment Bank.[18] It observed that a National Investment Bank could co-opt specialist expertise unavailable to private investors, and that a National Investment Bank could borrow more cheaply while also absorbing risks that private investors might be reluctant to take on. It recommended that the bank's mandate be infrastructure, innovation, and business growth. It suggested that the bank aim to 'crowd in' private investment, and promote exports. The IPPR also proposed equity financing for innovation, incentives for start-ups (via a 'first customer' guarantee), and a National Factoring Agency to facilitate low-cost cash-flow.

[17] GFC Economics and Clearpoint Advisors Limited, *Financing Investment: Final Report*, June 2018.

[18] https://www.ippr.org/research/publications/prosperity-and-justice Institute for Public Policy Research, (2018), *Prosperity and Justice: A Plan for the New Economy* - The Final Report of the IPPR Commission on Economic, IPPR. Available from: https://www.ippr.org/research/publications/prosperity-and-justice [Accessed: 21/01/19].

Part Two: Objectives and How Best to Deliver Them

Stating the Mandate More Clearly: A National Investment Bank that Builds an Economy for the Many, Not the Few

All five areas discussed in the Outline Paper are important priorities. But they can be restated in a more focused way, allowing the National Investment Bank a stronger mission.

Griffith-Jones and Ocampo elaborate on the potential value of a more "narrow and specific mandate", which 53% of national development banks have. A relatively foccussed mandate encourages specialisation, and makes monitoring and performance evaluation easier.[19] It can allow for greater accountability.

It is true that some successful national investment banks' have broader and more flexible mandates that enable them to support a wider range economic objectives and respond to emerging priorities. Therefore, flexibility in the mandate should be preserved, especially for the future. Relationships between key investment and industrial strategy institutions should also be designed to maximise flexibility. A somewhat narrower mandate may be particularly valuable in the initial phases of a National Investment Bank, and can be broadened later.

The first two listed objectives in Labour's Outline Paper – addressing the long-term funding gap for small and medium-sized enterprises, and addressing the long-term funding gap for infrastructure investment, physical and social – are essential. There is strong evidence of gaps in funding in both spheres.

We consider the reference to 'technological and institutional progress and innovation' (the third objective in the Outline Paper) very important, but that this objective can be best advanced by redescribing the first objective, with an emphasis on innovation and sustainability. The fourth objective's reference to 'socially valuable services' is also

[19] Griffith-Jones and Ocampo, The Future of National Development Banks. Oxford University Press .2018 pp. 11–12

undoubtedly significant, but can be covered by the existing mention of 'social' infrastructure in relation to the second objective. Finally, we are convinced that investment in regions outside of London and the South-East is imperative, but this can be captured by a reference to SMEs and infrastructure 'across the country'. A commitment to the regional economy is also reflected in the geographical placement and design of the National Investment Bank (which we discuss further below).

We therefore propose the mandate of the National Investment Bank can be restated in the following way:

- Addressing the long-term funding gap for small and medium-sized enterprises across the country, with particular emphasis on innovation and sustainability;
- Addressing the long-term funding gap for infrastructure investment across the country, including both physical and social infrastructure.

The first part of the mandate could be applied in a way that gives priority to SMEs in areas of socio-economic deprivation, where private funding has been especially insufficient. The regional structure of the NIB should contribute to realising this aim. Digitisation may initially be an important part of 'innovation'. The second part of the mandate could lead to emphasis on green infrastructure, decarbonisation, and transport: including, for example, renewable energy and infrastructure for public transport, as well as for low carbon vehicles (such as electrical ones). We say more about how these mandates are best delivered below.

The National Investment Bank will work closely with other institutions. As suggested in *Financing Investment: Final Report*, the Applied Sciences Fund should integrate relevant parts of the British Business Bank that supports nascent technologies in the early VC (Venture Capital) stage taking firms to late stage financing. This would tie into the Industrial Strategy Challenge Fund so that there is better coordination between R&D funding and ownership models and VC funding models. This, we think, would allow for a much more mission and skills focused model of the commercialisation and application of R&D outputs and would allow for the Government to co-invest and act as a positive signalling mechanism to the private sector.[20]

[20] The Applied Sciences Fund would sit within UK Research and Innovation. The Applied Sciences Fund will have principal responsibility for the funding the commercialisation of leading edge R&D and operating within the excellence of the UKRI and the wider R&D structures within the UK. It will provide sustainable technology investment, creating a division of labour betweeen the National Investment Bank and the Applied Sciences Fund. In other words, specialised investment in science will primarily occur away from the National Investment Bank, because of the distinctive skills required, though the science-focused industrial

Labour also announced a National Transformation Fund, which will invest £250 billion over 10 years in transport, energy systems, communications and housing; to increase efficiencies and decarbonisation. A National Investment Bank, would coordinate through its own infrastructure projects and the support of SMEs as part of that transformation process and more directly supporting private sector growth.

The diagram (*Diagram 1*) below maps some of the key interactions between institutions. The Sustainable Investment Board will help to advise the National Investment Bank and update its strategic priorities (for example, giving guidance about priority areas within its mandate). The diagram clarifies that the National Investment Bank should play a role not only as a funder, but also as a project manager – ensuring that skills in project management are maintained and cultivated within government.

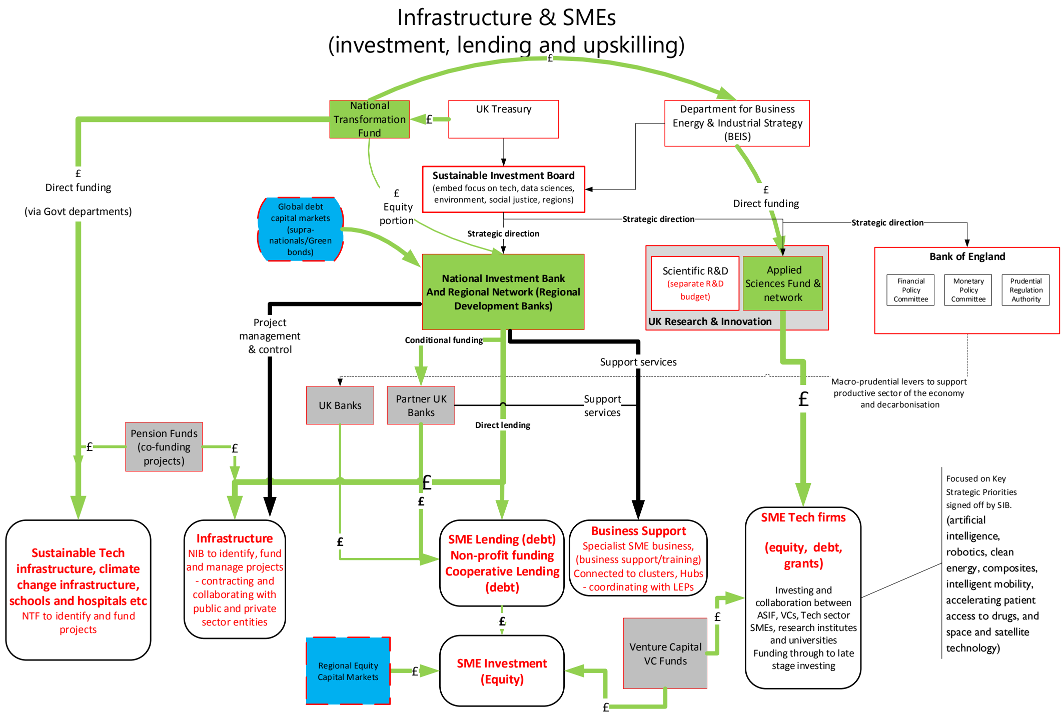

Diagram 1

With these preliminary points made, we can turn our attention to how the National Investment Bank's two objectives can be best delivered. They are sometimes referred to, in shorthand, as 'SMEs' and 'infrastructure', but for the best understanding of their full focus the formulations above should be referred to.

policy institutions (such as the Applied Sciences Fund) would share many of the motivations of the National Investment Bank.

Objective One: Addressing the Funding Gap for Small and Medium-Sized Enterprises Across the Country, with Particular Emphasis on Innovation and Sustainability

Building out a successful platform for grant-giving, lending (debt) and investing (equity) to small and medium sized enterprises ("SMEs") is a significant challenge. The National Investment Bank will require physical infrastructure in place in the regions to stimulate and coordinate lending.

The existing gap

There are approximately 5.7 million SMEs in the UK.[21] The Bank of England began to collect data on SME lending in April 2011: the stock of outstanding loans to SMEs (sterling & foreign currency) tumbled 18.5% between the high of April 2011 (£197.8bn) and the low of March 2016 (to £161.2bn). Outstanding loans have since edged up over the past three years to £166.3bn as of March 2019, but remain 15.9% below the April 2011 high, and were up just 0.1% compared to the same month of the previous year.[22] On this metric at least, it would appear that SMEs are being starved of credit.

This figure needs to be seen in the context of an increased business population. At the start of 2011, there were 4.582 million SMEs in the UK. The number of SMEs has since risen to 5.660 million (beginning of 2018), an increase of 23.5%.[23] The definition of SMEs here (0-250 employees) does not match that used by the Bank of England, which uses turnover instead of employees. [24] Nevertheless, it is clear that funding *per* SME has fallen by much more than overall funding to SMEs over the past eight years.

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[21] Rhodes. C., (2017) *Business Statistics Briefing Paper No. 06152, 28 December 2017*, House of Commons Library, p 7.

[22] https://www.bankofengland.co.uk/statistics/money-and-credit/2019/march-2019 See "Money and Credit – March 2018", Bank of England, May 1st 2018, p. 10, https://www.bankofengland.co.uk/-/media/boe/files/statistics/money-and-credit/2018/march-2018.pdf?la=en&hash=C8715F8D39D5D18ADA53EFE91EB19FE948EE28AF. See the summary table in Money and Credit – September 2018, Bank of England, 29 October 2018.

[23] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746599/OFFICIAL_SENSITIVE_-_BPE_2018_-_statistical_release_FINAL_FINAL.pdf

[24] The usual definition of SMEs is any business with fewer than 250 employees. However, the Bank of England defines SMEs as those businesses with annual debit account turnover on the main business account less than £25 million.

SMEs are integral to the UK economy, accounting for 99.9% of all private sector businesses at the start of 2018.[25] In addition, SMEs account for at least 99.5% of the businesses in every main industry sector.[26] Employment at SMEs (16.3 million) made up 60% of all private sector employment in the UK.[27] The annual turnover of SMEs (£2.0 trillion) represented 52% of all private sector turnover.[28]

According to the SME Finance Update for Q3 2018 (UK Finance), banks approved eight out of ten applications for SME Finance. At first glance, this would suggest that fears of lending to non-financial SMEs was just 0.2% in March. In September 2018 outstanding loans were £167.4bn.[29]

However, these figures need to be put into the broader context. In its written submission evidence to Parliament, IWOCA – a micro- and small business lender – noted that:

"reporting of loan approval rates fails to capture the large numbers of businesses that enquire in branch or online about credit, but never formally apply because they believe they will be rejected whether for lack of collateral or historic financials, or that are simply discouraged by the drawn-out and burdensome application process."[30]

What is more, only 36% of SMEs were using external finance in 2018.[31] This is roughly in-line with 2017 (38%) and 2014-2016 (37%), but moderately below 2012 levels (44%).[32] The BVA BDRC SME Finance Monitor for Q4 2018 also noted that:

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25 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746599/OFFICIAL_SENSITIVE_-_BPE_2018_-_statistical_release_FINAL_FINAL.pdf
26 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746599/OFFICIAL_SENSITIVE_-_BPE_2018_-_statistical_release_FINAL_FINAL.pdf
27 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746599/OFFICIAL_SENSITIVE_-_BPE_2018_-_statistical_release_FINAL_FINAL.pdf
28 See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746599/OFFICIAL_SENSITIVE_-_BPE_2018_-_statistical_release_FINAL_FINAL.pdf
29 Bank of England, (2018) Money and Credit Summary Table – September 2018, Bank of England [online], 29 October 2019. Available from: https://www.bankofengland.co.uk/statistics/money-and-credit/2018/september-2018 [Accessed 21/01/19].
30 https://publications.parliament.uk/pa/cm201719/cmselect/cmtreasy/805/805.pdf
31 http://www.bva-bdrc.com/wp-content/uploads/2019/03/BVABDRC_SME_Finance_Monitor_Q4_2018_FINAL.pdf
32 http://www.bva-bdrc.com/wp-content/uploads/2019/05/SME-Monthly-charts-Mar-2019-FINAL.pdf

"48% of all SMEs met the definition of a Permanent non-borrower with no apparent appetite for external finance."[33]

Permanent non-borrowers were less likely to have been innovative or have plans to grow.

Furthermore, 80% of SMEs reportedly confine their business plans to what they can afford internally, while 73% would accept slower growth rather than borrowing to grow faster.[34] So while applications rates for SME funding paint a more sanguine picture, the reality is that SMEs in the UK are relucant to borrow in order to grow. This can have an adverse impact on productivity.

Indeed, according to the British Business Bank:

"Rates of application for new overdrafts and new loans have also fallen since 2012 […] reflecting the decreased demand for external finance and use of core debt products. Since 2012, the application rate for overdrafts has fallen by half, to 2.0% in Q4 2017, down from 4.0% in 2012. Similarly, the rate of application for loans has fallen to 1.5% in Q4 2017, down from 2.9% in 2012."[35]

Indeed, the Federation of Small Business has reported decreasing business confidence, with a decline in each quarter of 2017.[36] *Trading Economics* had small business sentiment decreasing through 2018 reaching -18 in Q4 2018 (admittedly, for a variety of reasons, which might include impending Brexit).[37]

Not only is there an existing funding gap, but there is even within the SME sector an overwhelming preference in the support of real estate activities (buying, selling and renting of own or leased real estate) which stood at £51.8bn as of March 2019 (see Table 1). Real estate is prioritised ahead of other more productive sectors. Overall, this sub-

[33] http://www.bva-bdrc.com/wp-content/uploads/2019/03/BVABDRC_SME_Finance_Monitor_Q4_2018_FINAL.pdf

[34] http://www.bva-bdrc.com/wp-content/uploads/2019/03/BVABDRC_SME_Finance_Monitor_Q4_2018_FINAL.pdf

[35] https://www.british-business-bank.co.uk/wp-content/uploads/2019/02/British_Business_Bank_Small-Business-Finance-Report-2019_v3.pdf

[36] Supra at note 20.

[37] Trading Economics, (2019), See *United Kingdom Small Business Sentiment*, Trading eEconomics,com. Available from:, https://tradingeconomics.com/united-kingdom/small-business-sentiment [Accessed 24/01/19].

sector constituted 31.1% of total SME lending recorded by the Bank of England as of March 2019.

Loans to SMEs, by industry	
All currencies	
Not seasonally adjusted	
March 2019	
	outstanding £ billions
Agriculture, hunting, forestry and fishing	**16.6**
Production	
Mining and quarrying	1.0
Manufacturing	9.9
Electricity, gas and water supply	2.8
Construction	**15.2**
o/w Development of buildings	8.1
Non-financial services	
Wholesale and retail trade	15.3
Accommodation and food services	10.8
Transport, storage and communication	6.6
Real estate, professional services and support a	67.0
o/w Buying, selling and renting of own or lease	51.8
o/w Real estate activities on a fee or contract b	2.5
Public administration and defence	0.7
Education	3.3
Human health and social work	12.7
Recreational, personal and community service a	4.4
Total loans to SMEs	**166.3**
Source: Bank of England	

Table 1: SME Loans by Industry (Table H, Bank of England Statistics, March 2019)[38]

The structure of the Capital Requirements Regulation (CRR) rules and Basel III incentivise banks to prioritise collateralised lending. The risk weighting required for bank lending to SMEs is typically 75%, but only 35% for buy-to-let mortgages.[39] Such

[38] Bank of England Statistics, (2018), Money and Credit – September 2018: Lending to businesses, Bank of England [online], Table H. Available from: https://www.bankofengland.co.uk/statistics/money-and-credit/2018/september-2018#footnotes [Accessed: 24/01/19] For additional information see: https://www.bankofengland.co.uk/statistics/details/further-details-about-monetary-financial-institutions-loans-to-non-financial-businesses-data

[39] European Parliament and of the Council of 26 June 2013, Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012,

risk weightings might be seen as a form of de facto credit guidance, that tilts lending towards real estate activities. The effect in the UK has been for banks to have overwhelming volumes of mortagaged bank loans while not sufficiently supporting the productive sectors of the economy. Even with regulatory amendments with the addition of the 'SME Support Factor', which brought down the risk weighting to SMEs to an equivalent of Basel II levels from the new Basel III levels, there is little evidence that this has supported SME bank lending.[40] More must be done to persuade banks to support the SME sector.

Previous attempts to fill the funding gap

There are many reasons for the gap in SME funding, including a lack of aggregate demand, high transactions costs in lending to SMEs, and uncertainty (in part due to Brexit). But whatever the explanation, what is clear is that banks have developed few innovative tools to address the gap in SME funding other than continue the expansion of mortgage lending[41] Under the Small Business, Enterprise and Employment Act (2015), banks that refuse financing for SMEs are required to seek out alternative sources of financing for them.[42] However, funding to SMEs has not improved.[43]

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https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex%3A32013R0575. Articles 123 & 124. Available from: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex%3A32013R0575 [Accessed 24/01/091].

[40] The SME support factor is a measure to reduce the risk weighting for SME lending that meet the requirements of Article 147(8) and Article 502(2) of the Capital Requirements Regulation. BBVA, (2017), *Working Paper: Impact of capitalregulation on SMEs credit*, BBVA, p. 8. Available from: https://www.bbvaresearch.com/wp-content/uploads/2017/09/WP-17-01.pdf . See also "Response to the European Commission's public consultation on the possible impact of the CRR and CRD IV on bank financing of the economy", Bank of England, [online], October 2015, pp. 3-4, answer 8.2,. Available from:,https://www.bankofengland.co.uk//media/boe/files/prudential-regulation/crd-iv/boe-response-to-ec-consultation-on-possible-impact-of-crr-crd-ivon-bank-financing-of-economy.pdf?la=en&hash=55795D8EB89344F97C37B8765C562D630EA6A3F9 [Accessed 24/01/19]. .

[41] The Royal Bank of Scotland Group plc December 2017 Annual Report shows commercial banking net lending down by £4.9 billion (see page 3) and gross new mortgage lending of £31 billion in its UK Personal and Business Banking division. RBS, (2018),Annual Results for the year ended 31 December 2017, Royal Bank of Scotland, https://www.rbs.com/content/dam/rbs_com/rbs/PDFs/Annual-Results-2017.pdf p. 3, Available from: https://investors.rbs.com/~/media/Files/R/RBS-IR/results-center/23-02-2018/announcement-23022018.pdf [Accessed 24/01/19].

[42] Sheppard. E., (2016), Bank turned down your small business loan? Now it must offer an alternative, *The Guardian*, [online], November 1st 2016, Available from: https://www.theguardian.com/small-business-network/2016/nov/01/bank-turned-down-small-business-loan-alternative-funding-referral. [Accessed] 24/01/19].

[43] Arnold, M., (2016), "Smaller businesses offered route to alternative finance", *Financial Times*, [online], November 1st 2016. Available from: https://www.ft.com/content/cd0a9132-9f8c-11e6-86d5-4e36b35c3550. [Accessed 24/01/19]. See also, Binham. C., (2018) Banks 'reluctant to lend' to small businesses, MPs told, *Financial Times*, [online], March 30th 2018. Available from:

The British Business Bank (BBB), established in 2014, is a state-owned economic development bank designed to increase lending to SMEs. It has fared rather poorly in reaching SMEs - in its first years - substantially relying on the traditional 'high street' banks to do the on-lending. To its credit, it has improved in its efforts on equity funding and on-lending outside of the big four banks. It has also put a strong focus on issues around demand for finance which is fundamentally about information, advice and knowledge to support SMEs.[44] More must be done to support the BBB, its Patient Capital Fund and venture capital programmes.

The Start Up Loans Company was established in 2012. It provides personal loans for business purposes of up to £25,000 at 6% fixed rate per annum. Through its delivery and finance partners, it offers free dedicated mentoring and support to each business. This use of third party service providers for delivery has not produced particularly good results. Default rates have been very high and there are issues cited around the third party delivery and finance partners ability to explain and support the new borrowers.[45] More is needed on training and support for borrowers. The lending process needs to be combined with relevant training and support as a means of determining and supporting loan applicants.

The Bank of England has also attempted to address SME under-funding. The Bank's Funding for Lending Scheme (FLS) was designed with incentives to boost lending skewed towards small and medium sized enterprises (SMEs).[46] The Funding for

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https://www.ft.com/content/fc6640a8-3427-11e8-ae84-494103e73f7f. [Accessed 24/01/19]. See also, BIS, (2013) *Evaluating changes in bank lending to UK SMEs over 2001-2012 – ongoing tight credit?*, Department for Business Innovation & Skills, April 2013, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/193945/bis-13-857-evaluating-changes-in-bank-lending-to-uk-smes-2001-12.pdf. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/193945/bis-13-857-evaluating-changes-in-bank-lending-to-uk-smes-2001-12.pdf [Accessed 24/01/19].

[44] BBB Economics Team, *Small business finance markets 2018/2019*.," https://www.british-business-bank.co.uk/wp-content/uploads/2019/02/British-Business-Bank-Small-Business-Finance-Report-2019_v2.pdf

[45] Ruthven. H., (2017), Start Up Loans scheme plunging alarming numbers of entrepreneurs into default and debt, Businessadvice.co.uk, 26 July 2017, https://businessadvice.co.uk/finance/debt/start-up-loans-scheme-plunging-alarming-number-of-entrepreneurs-into-default-and-debt/ Available from: https://businessadvice.co.uk/finance/debt/start-up-loans-scheme-plunging-alarming-number-of-entrepreneurs-into-default-and-debt/ [Accessed 28/01/19].

[46] Bank of England, (2013), Bank of England and HM Treasury announce extension to the Funding for Lending Scheme- News Release", Bank of England, April 24th 2013, https://www.bankofengland.co.uk/-/media/boe/files/news/2013/april/boe-hmt-announce-extension-to-the-fls . [Accessed 28/01/19].

Lending Scheme (FLS) allowed banks to borrow UK Treasury Bills in exchange for eligible collateral, which consists of all collateral eligible in the Bank's Discount Window Facility. It allowed for cheap collateralised funding for banks.

The Bank and HM Treasury launched the Funding for Lending Scheme (FLS) on 13 July 2012 and extended it until January 2018.[47] The Bank of England and the Treasury claim that the Funding for Lending Scheme has been beneficial for the SME sector and the wider economy.[48] The evidence shows otherwise. [49]

The Term Funding Scheme, announced by the Bank of England on 4 August 2016 was a separate aspect of their Asset Purchase Facility.

The Term Funding Scheme (TFS) was designed to reinforce the transmission of Bank Rate cuts to interest rates faced by households and businesses. It provided term funding to banks at rates close to the Bank Rate. It was a monetary policy tool of the Monetary Policy Committee and operated as part of the Asset Purchase Facility.[50]

The Monetary Policy Committee noted:

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[47] Bank of England, (2012) The Funding for Lending Scheme, Bank of England, Quarterly Bulletin Q4 2012, p. 306, Available from: https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2012/the-funding-for-lending-scheme.pdf?la=en&hash=57B13A5C9E94B5D02A451670C8B013DD22CF16EA. [Accessed 28/01/19].

[48] Bank of England, (2015), Bank of England and HM Treasury announce extension to the Funding for Lending Scheme, Bank of England, 30 November 2015,. Available from: https://www.bankofengland.co.uk/news/2015/november/boe-and-hmt-announce-extension-to-the-fls. [Accessed 28/01/19].

[49] Arnold. M., (2016) Smaller businesses offered route to alternative finance, *Financial Times*, [online], November 1st 2016, . Available from: https://www.ft.com/content/cd0a9132-9f8c-11e6-86d5-4e36b35c3550. See also, Binham. C., (2018), Banks 'reluctant to lend' to small businesses, MPs told, *Financial Times*, [online] 30 March 2018,. Available from: https://www.ft.com/content/fc6640a8-3427-11e8-ae84-494103e73f7f [Accessed 28/01/19]. . See also, NIESR & Department for Business, Inovation & Skills, (2013), Evaluating changes in bank lending to UK SMEs over 2001-2012 – ongoing tight credit?, National Institue of Economic and Social Research, February 2013, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/193945/bis-13857-evaluating-changes-in-bank-lending-to-uk-smes-2001-12.pdf. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/193945/bis-13857-evaluating-changes-in-bank-lending-to-uk-smes-2001-12.pdf. [Accessed 28/01/19].

[50] "Bank of England, (2016), Asset Purchase Facility: Term Funding Scheme – Market Notice, Bank of England, [online], 4 August 2016. Available from https://www.bankofengland.co.uk/markets/market-notices/2016/asset-purchase-facility-term-funding-scheme-market-notice. [Accessed 28/01/19].

"The cut in Bank Rate will lower borrowing costs for households and businesses. However, as interest rates are close to zero, it is likely to be difficult for some banks and building societies to reduce deposit rates much further, which in turn might limit their ability to cut their lending rates. In order to mitigate this, the Monetary Policy Committee (MPC) is launching a Term Funding Scheme (TFS) that will provide funding for banks at interest rates close to Bank Rate. This monetary policy action should help reinforce the transmission of the reduction in Bank Rate to the real economy to ensure that households and firms benefit from the MPC's actions."

The Term Funding Scheme closed on 28 February 2018: banks borrowed a total of £127bn from the scheme. It failed to resolve the under-funding of SMEs in the UK economy.

The outstanding stock of loans to SMEs dropped from £197.8 billion in April 2011 (start of data) to £166.1 billion in March 2018.[51] Despite the various schemes, banks still favour mortgage lending and consumer debt products.[52] It is clear that a series of schemes have failed to boost support for SMEs. They have been inadequately resourced, too reliant on traditional banks, or insufficiently ambitious.

How the National Investment Bank can learn from these mistakes

The National Investment Bank must generate additional means of transmission of lending to SMEs. Despite the levels of support from the Bank of England, the banks and 'challenger banks' have not turned around SME lending.

The Funding for Lending and Term Funding Schemes were unconditional funding support to the banks. There were no conditionalites tied to cheap funding. The banks also had the pressure to improve their regulatory capital, cutting higher capital cost products.

[51] Bank of England, Money and Credit – March 2018, Bank of England, [online], 1 May 12018, https://www.bankofengland.co.uk/statistics/money-and-credit/2018/march-2018.. Available from: https://www.bankofengland.co.uk/statistics/money-and-credit/2018/march-2018. [Accessed 28/01/19].

[52] The Royal Bank of Scotland Group plc December 2017 Annual Report shows commercial banking net lending down by £4.9 billion and gross new mortgage lending of £31 billion in its UK Personal and Business Banking division. See RBS, (2017) "Annual Results for the year ended 31 December 2017", Royal Bank of Scotland, p.22 February 2018, p. 3, https://www.rbs.com/content/dam/rbs_com/rbs/PDFs/Annual-Results-2017.pdf.

I. Direct Funding

Direct funding, with the most control, should be the preferred transmission model in light of the UK experience with the incumbent and challenger banks (with limited exceptions).

Direct funding will have more immediate input to the economy when there are cyclical down-turns and banks are restoring their balance sheets. Direct funding will require the building of a new regional banking infrastructure to ensure a local presence for SMEs for more efficient and effective throughput of lending.

II. Indirect lending

Indirect lending channels could be through banks, external equity investment funds, asset financing and peer-to-peer business lending platforms with funding conditionalities in place to support SME financing. Access to such funds by intermediaries should only be for new lending in accordance with appropriate lending guidelines to be agreed between the National Investment Bank and any bank participants.

Conditionalities should be used to direct banks, who wish to participate, to support investment in the productive sectors of the economy, in line with a Governments' overall industrial strategy direction.

Conditionalities can help direct banks to support the transformation of the economy to more sustainable and clean technologies and practices by SMEs. The Bank of England can support this too, with macro-prudential tools and guidance to promote productive sector lending and looking toward the long-term economic growth to promote the long-term stability of the banking sector.

Mere on-lending is inadequate for the realisation of the National Investment Bank's social, economic, and environmental goals, nor does it support the diversification of bank risk (where banks are so heavily reliant on the asset valuations of housing stock). The successful German model of SME lending through Sparkassen, funded by KfW, is a good example for banks to study. To successfully participate in funding from the National Investment Bank UK banks will require a cultural change and enhancement of branch skills to get to the level of the German Sparkassen. UK banks have a long way to go to improve their reputations with small businesses, whereby sufficient flow of SME lending has a meaningful effect on local economies. Like the German Sparkassen, the banks will need to get 'local' in order to more fully understand and manage credit risk.

Other alternatives have been mooted in "A *New Public Banking Ecosystem*" [53] such as the creation of a new Post Bank, through an enhancement of the Post Office. This would make use of the many branches in their network for SME lending. *Both Financing Investment*: *Final Report* and A *New Public Banking Ecosystem* assessed the use of the Royal Bank of Scotland and its possible transformation into a more focused SME lender.[54] We too believe there is some merit in the re-use of the Royal Bank of Scotland.

Both the Post Bank option and the Royal Bank of Scotland option deserve some consideration.

Building out a National Investment Bank's regional branches (the Regional Development Banks) and networks – and their available tools

Expansion of the direct funding model will require a regional and local banking infrastructure.

There is sound evidence that where SMEs borrow more from state-owned banks relative to private banks, financial constraints are reduced for SMEs without a corresponding increase in default risk.[55] This research attributes that successful result to the value of "private and soft information on borrower quality", "consistent with relationship lending."[56]

The National Investment Bank must have a regional branch network through the establishment of Regional Development Banks (RDBs) to truly be effective in the support of small and medium enterprises (SMEs). RDBs will need to establish connections to communities to more fully understand SME clients and risk.[57] This

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[53] Berry C., and Macfarlane L., March 2019 "A New Public Banking Ecosystem" A report to the Labour Party commissioned by the Communications Workers union and the Democracy Collaborative.
[54] Ibid. and see also GFC Economics and Clearpoint Advisors Limited., (2018), *Financing Investment: Final Report*, June 2018, p112. https://labour.org.uk/wp-content/uploads/2018/06/Financing-investment-final-report-combined.pdf. Available from: https://labour.org.uk/wp-content/uploads/2018/06/Financing-investment-final-report-combined.pdf [Accessed 11/01/2019]
[55] Behr. P., Norden. L., & Noth. F., (2013), Financial Constraints of Private Firms and Bank Lending Behaviour, Volume 37, Issue 9, *Journal of Banking and Finance,* pp. 3472-3485.
[56] Ibid,., p. 3484.
[57] Department for Business, Innovation * Skills, (2016), BIS Research Paper No. 270 *SME lending and competition: an international comparison of markets*, BIS, May 2016, . Available from:

points to the need for a National Investment Bank to develop strong practices of relationship lending, so that private and soft information can be well-gathered.

This could be carried out by the RDBs working with Local Enterprise Partnerships (LEPs and LEP Growth Hubs). They too need support and expertise which the RDBs could supply.

This would require a transformation of LEPs. Local authorities have come under severe budget constraints. Economic development has being sacrificed as local authorities struggle to meet their statutory requirements. Local Enterprise Partnerships are left understaffed and underequipped.[58]

RDBs could match the number of LEPs. RDBs will provide an effective means for direct lending and could tie in with LEPs so that bureacracy is not duplicated but strengthened appropriately. The report "*Strong Economies, Better Places*"[59] makes the case for the retention and use of the LEPs within local and regional development policies albeit noting that there are widely varying capabilities among LEPs.

"After a slow start, LEPs have therefore become an important part of the institutional architecture of regional and local development in England and one that a Labour government will inherit. That said, LEPs still vary widely in operational capability and in the extent to which they are embedded in local decision-making structures."[60]

Relatedly, the National Investment Bank should develop its capacity in providing relevant background information for SMEs that borrow from it. The National Investment Bank should be a source of expertise, as well as a source of funds and make use of data sciences to support SME business.

Its funds can be directed towards building expertise, too: for example, grants should be made available for management assistance, mentoring, and accounting support.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/522490/bis-16-105-small-and-medium-sized-enterprise-lending.pdf [Accessed 28/01/19].

[58] See "Local Enterprise Partnerships", National Audit Office, March 23rd 2016, p. 8, https://www.nao.org.uk/wp-content/uploads/2016/03/Local-Enterprise-Partnerships.pdf. "To oversee and deliver Growth Deal projects effectively, LEPs need access to staff with expertise in complex areas such as forecasting, economic modelling, and monitoring and evaluation. Only 5% of LEPs considered the resources available to them to be sufficient to meet the expectations placed on them by government."

[59] Crisp, Ferrari et al, "Strong Economies, Better Places: local and regional development policies for a Labour government" Centre for Regional Economic and Social Research, Sheffield Hallam University, January 2019.

[60] Ibid: at p58.

Export finance should be available. Part III says more about how the capacity of the National Investment Bank can be deepened.

The co-operative sector can also be further developed by the National Investment Bank through the first part of its mandate. The Labour Party has already observed that the United Kingdom's co-operative sector is one-fifth of Germany's co-operative sector, and has undertaken to double the size of the sector, to give workers the right to own when a company faces closure or change of ownership.[61]

The National Investment Bank, particularly through its regional arms, should develop expertise in providing information and background to individuals seeking to set up co-operatives and co-operatives in need of further finance. It could develop co-operative-specific expertise by employing individuals with experience in the co-operative sector (including from overseas) to provide mentoring, support, and guidance. We recommend that a portion of the National Investment Bank's funds be set aside for cooperative development. This would also support Labours' commitment to the Cooperative sector and their strategic economic objective to extend 'economic democracy'.

The National Investment Bank will inevitably face some uncertainty in determining chances of success of SMEs with potential in sustainability and innovation. As Griffith-Jones and Ocampo point out,

> "the best response [to this] … is to finance portfolios of SMEs in order to diversify idiosyncratic risks."[62]

The National Investment Bank should also build partnerships with existing institutions that have an SME focus, including the European Investment Fund, which is dedicated to SME lending.

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[61] Corbyn. J., (2017), "We Support support co-operative Principles – principles – they are Labour Principles'Principles", The Co-operative Party, [online], Speech delivered on 14 October 2017, . Available from: https://party.coop/2017/10/14/ideas-to-change-britain-jeremy-corbyn-addresses-co-operative-party-conference/ [Accessed 28/01/19].

[62] Griffith-Jones & Ocampo "The Future of National Development Banks". Oxford University Press .2018 at, p. 30. See also, BDRC Continental, (2017) *SME Finance monitor Q2 2017*, BDRC Continental, September 2017, which provides good analysis of the SME lending market and default rate assessments in various categories. Available from: http://www.bva-bdrc.com/wp-content/uploads/2017/09/BDRC_SME_Finance_Monitor_Q2_2017.pdf [Accessed 28/01/19].

There may be a need for the legal and regulatory framework for the National Investment Bank to address the scope and limits of its advisory functions; for example, in background information that it provides to SMEs (and co-operatives in particular).[63]

Grants to SMEs need a fundamental re-organisation. There are few grants for management, accounting, marketing or finance support. Such support is often geographically bound. The NIB and RDBs should be the leading entity to channel grants to SMEs similar in nature to the Singapore Capability Development Grant (SCDG).[64] The SCDG provides grants and funding to develop business management skills for growth in small and medium-sized enterprises in Singapore. In its most recent policy update, it is more focused on productivity gains with its **Enterprise Development Grant (EDG),** launched on 25 October 2018 to support companies in the "upgrading of business capabilities, innovation and internationalisation". The EDG has replaced the existing SCDG. The grant process model is simple, efficient and transparent, with a quick decision-making panel from the business sector.

We would support the idea of replacing the EU Structural Funds with a new fund to support training and skills development.[65] We think this could be housed within the NIB and RDBs to ensure that the regional development focus of business lending, business support and training are coordinated.

Such grants acknowledge that SME development is not only a problem of financing, but also a problem related to skills development. With more conscious effort, like the SCDG, putting effort into upgrading business capability, we can see increases in the effectiveness of funding SMEs and productivity gains.

Export financing support should also be considered. Further work should be done to assess UK export finance and the potential for some of its services to be included in products for SME exporting firms. There is an interesting precedent, in that both

[63] The National Investment Bank should be aware that it may be liable (for example, in negligence) for advice that does not show reasonable care. There are different ways this could be addressed: through careful training, for example.

[64] Singapore Government, (2018), Enterprise Development Grant, Enterprise Singapore, [online], 24 October 2018. Available from: https://www.enterprisesg.gov.sg/financial-assistance/grants/for-local-companies/enterprise-development-grant/overview [Accessed 28/01/19].

[65] Crisp, Ferrari et al, "Strong Economies, Better Places: local and regional development policies for a Labour government" Centre for Regional Economic and Social Research, Sheffield Hallam University, January 2019, p 23-24.

German KfW and France's Banque Publique d'Investissement (BPI), have added export finance to the instruments they use to support their economies.

Technology innovation and development for SMEs

The National Investment Bank will be involved in supporting SMEs and innovation. We make what we believe is a necessary delineation of what we deem technology and innovation as it relates to SMEs.

For our purposes we split technology and innovation into two types as a means of focusing finance and efforts. The first type for example is, business innovation and digitalisation; and second type is, applied sciences and commercialisation. This second type is about technology and innovations that are nascent and with the potential to be significantly transformative. They are likely to come directly out of research and development (R&D).

Our rationale for this split is that SME financing in general is very different in mind-set and skill base. The risk profile is also very different. Taking R&D to commercialisation is high-risk and time-consuming.

We believe a mission-focused team of technology and VC finance experts sitting within UK Research & Innovation (the UKRI) in the Applied Sciences Investment Fund would raise the level of importance of 'application and commercialisation' within the sciences. It would also allow a government entity to take equity positions through its VC fund, providing patient capital and some element of control over the ownership and intellectual property rights. It would support co-investment from the private sector, allowing a bigger per centage of UK ownership and the risks and gains it would generate.

We see much merit in the current set-up of housing additional sectoral R&D funding (the Industrial Strategy Challenge Fund) within the UKRI. This would cover a Labour Government's strategic priorities. In other words, funding for SMEs working in applied science should be done by UKRI. A separate paper will outline the case for an Applied Sciences Investment Fund within the UKRI structure.

Business innovation and digitalisation would be supported by the National Investment Bank.

Digitalisation to support existing businesses to take-up existing technology and robotics is another activity where the National Investment Bank could support SMEs: – It could have a two-fold effect to support the development of a robotics industry, as well as the services and manufacturing industries.

Objective Two: Addressing the Long-Term Funding Gap for Infrastructure Investment Across the Country, With a Focus on Both Physical and Social Infrastructure

The second part of the National Investment Bank's mandate will be to address the long-term funding gap for physical and social infrastructure across the country and make use of such sustainable technologies.

The National Investment Bank can play a role in investing in large-scale infrastructure for decarbonisation. It should be willing to take risks that private banks are unwilling to take. As Griffith-Jones and Ocampo point out, there is good precedent for other state development banks undertaking this task effectively. In Germany, KfW was crucial to the introduction of Solar PV. KfW funded all investment in solar PV during 2007-2009, and "then played a diminishing role as other, basically private, funding sources stepped in". This "catalytic" funding helped to "kickstart a major structural transformation".[66] In 2012, KfW funded $11.4 billion of renewable investment, over 50% of all renewable investment in Germany, and 90% of investment in on-shore wind.[67] KfW has also financed increased energy efficiency in residential housing.

The Future of National Development Banks". Oxford University Press

.2018

[66] Griffith-Jones & Ocampo, "

p., p. 36.

[67] Griffith-Jones,. S., (2016), National Development Banks and Sustainable Infrastructure; the Case of KfW, Boston University Global Economic Governance Initiative, GEGI Working Paper 006, 07/2016, p. 5. Available from: https://www.bu.edu/pardeeschool/files/2016/07/GriffithJones.Final_.pdf [Accessed 22 November 2018].

This mission-oriented work by KfW is facilitated by close contact with the Ministry for the Environment and the Ministry for Economic Affairs and Energy; the use of green bonds; reliance on traditional and simple instruments (mainly loans and grants); and the use of rigorous climate and environmental markers to classify green projects. Our suggestion is that the United Kingdom's National Investment Bank should use environmental markers in order to evaluate projects to be funded, with the recognition that all long-term infrastructure must be climate-friendly.

A National Investment Bank should be geared towards decarbonisation and directly supporting initiatives like the decarbonisation of transport and energy efficiency in businesses. A second order tool could be shadow carbon pricing. Carbon pricing is no complete solution, but can be a way to discourage fossil fuel investments while encouraging renewable energy projects. The European Investment Bank has for some time made shadow carbon pricing a part of its cost-benefit analysis. A price has to be set centrally, and then used in project evaluation. The Asian Infrastructure Investment Bank has committed to similar shadow carbon pricing.[68]

It could be reasonably argued and we would tend to agree that, particularly in light of the Intergovernmental Panel on Climate Change's 2018 report,[69] shadow carbon pricing, on its own, is not a strong enough tool for decarbonisation. The planet has 12 years to transform production pathways in order to keep temperatures below 1.5 degrees of warming. In the face of that urgent threat, it seems more appropriate for the National Investment Bank to adopt a harder-edged rule stating that it will not fund fossil fuel projects (defined according to concrete criteria). We record this as one policy option for the Bank.

Social infrastructure is also an appropriate area for funding. Some division of labour will be needed between the work of the National Investment Bank ("NIB") and government departments, to ensure that the National Investment Bank does not replicate the work of other agencies. The Sustainable Investment Board will play an important coordinating and liasing role in the oversight of social infrastructure.

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[68] Griffith-Jones. S., & Leistner,. S., (2018) *Mobilizing Capital for Sustainable Infrastructure: The Cases of AIIB and* NDB', Deutches Institut für Entwicklungspolitik, June 2018, 18/2018, pp. 10-13. Available from: https://www.die-gdi.de/uploads/media/DP__18.2018.pdf [Accessed 28/01/19].

[69] Intergovernmental Panel on Climate Change, (2018), Special Report: Global Warming of 1.5 °C, IPCC, 8 October 2018. Available from: https://report.ipcc.ch/sr15/. [Accessed 28/01/19].

The selection of infrastructure investment projects will be driven by the NIB with high level guidance from the Sustainable Investment Board. This is a necessary step to ensure coordination of activities across Government as set out in *Financing Investment: Final Report*. Strategic direction from the Sustainable Investment Board will be through published guidelines or specific directions.

The National Investment Bank will be separate from the Labour Party's proposed National Transformation Fund (NTF), other than the equity capital funding provided by the NTF. The NIB will be a lender of funds raising finance from national and global markets. The NTF, located in HM Treasury, will be a spending entity through government departments. There will be overlap with certain initiatives relating to green technologies, decarbonisation and climate change-related infrastructure works where relevant government departments will be involved in the coordination and support of infrastructure projects.

An option is the NIB could provide operational support to NTF funded infrastucture, through the NIBs' skilled work force in technical and engineering construction knowledge, project and legal management. This would need further analysis as to how such a proposal would work in practice.

The National Investment Bank will focus mainly on long-term loans to those projects, with possible equity components. Specifically, where National Investment Bank projects include positive externalities (for example of an environmental nature) – which are not, or not yet, reflected in sufficient commercial returns – the NTF could provide some grant elements to those NIB funded projects; such co-financing between a public investment bank and a purely government funded institution has worked very effectively, for example in the co-financing of infrastrcture between the European Investment Bank and the European Commission.

By using a public investment bank, there is of course the great advantage of leverage of public resources that an investment bank brings, as it funds the loans on the national and international capital markets.

The National Investment Bank head office, in consultation with each Regional Development Bank office, will allocate funding for infrastructure spending. It will take the lead on collaborations with the private sector for the management, construction and delivery of NIB infrastructure projects.

Cost and time overruns should not be due to poor planning, budgeting and construction methods.

New approaches to large project management using local UK initiatives, such as 'Project 13' developed by the Infrastructure Client Group should be embedded in the core skills at the NIB.[70] In the terminology of 'Project 13', the National Investment Bank needs to be a mix of capable owners and integrators.[71] This ensures expert skills are shared with infrastructure owners and project managers with an aim to drive through quality to the whole chain of the project.

The National Investment Bank head office will provide technical support to the contractual and procurement process, until the legal and commercial skills base is developed in each Regional Development Bank. The NIB will lead contract negotiations for high-value and/or high-risk infrastructure in order to avoid, for example, excessive contingent liabilities being incurred by the National Investment Bank; and/or to allow the National Investment Bank, where relevant, to use instruments that help "capture the upside" of projects that may become very profitable in the future; this can be done by taking equity stakes, but other instruments may be designed.

Part Three: Implementation

The National Investment Bank organisational structure will reflect its two core dual missions. Its governance structures will need to accommodate a decision-making and information flows from the Sustainable Investment Board as well as regional decision-making and information flows. The National Investment Bank head office, in consultation with each regional office, will allocate funding for infrastructure spending.

[70] See "Project 13 launch will improve how infrastructure is delivered", Institution of Civil Engineers, May 1st 2018, https://www.ice.org.uk/news-and-insight/latest-ice-news/project-13-launches

[71] According to ICEG, 'owner' is the "organisation which owns and operates the infrastructure, promotes the investment in the infrastructure programme, receives the completed facilities and puts them into operation." The 'integrator' is the "organisation that plans and delivers the infrastructure programme. It manages the suppliers and advisors, coordinates planning, oversees design, construction, maintenance and operations as requested by owner."See ICE, (2018), *P13* BLUEPRINT,*BlueprintLUEPRINT*, Institute of Civil Engineers, May 2018. P. 7 & 14. Available from: http://www.p13.org.uk/wp-content/uploads/2018/04/P13-Blueprint.pdf. [Accessed 28/01/19].

Skills and Capacity

Although the National Investment Bank will have features of both the Singapore development bank (with its focus on reaching SMEs) and the Asian Infrastructure Investment Bank (with its focus on infrastructure projects within its thematic priorities of sustainability that are consistent with the United Nations Sustainable Development Goals and for energy projects in supporting the Paris Agreement on climate change), [72] it will need to fit the requirements and circumstances of the UK. The Development Bank of Singapore Ltd (DBS) was established in July 1968 as a public limited company. Its main function was to finance Singapore's industrialisation and the government's urban development projects. Kreditanstalt für Wiederaufbau (KfW) provided technical assistance to the DBS on operational and organisational matters in the bank's early years.[73] The bank has transformed into a world leader in SME lending and sustainable development. It also serves Asian clients outside of its domestic markets. It leads the world in its digital infrastructure to ensure it services its clients and works with social enterprise across Asia. Euromoney magazine gave DBS the award for being best digital bank and best bank for SMEs in 2018.[74]

The National Investment Bank could take the lead on collaborations with the private sector for the management, construction and delivery of infrastructure projects. This will take capacity building as the National Investment Bank will want to 'in-house' project management skills in order to oversee the success of the project.

The National Investment Bank will seek out infrastructure project leaders already delivering efficiency and productivity. It should go further afield if the domestic skills

[72] AIIB, (2017), Energy Sector Strategy: Sustainable Energy for Asia, Asian Infrastructure Investment Bank. June 2017. Avaialble from: https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/index.html [Accessed 28/01/19].For additional information https://www.aiib.org/en/policies-strategies/strategies/index.html

[73] See the National library board of Singapore; http://eresources.nlb.gov.sg/infopedia/articles/SIP_2015-12-01_132040.html NLB, (2015), Development Bank of Singapore, National Library Board of Singapore, 1 December 2015. Avaialble from: http://eresources.nlb.gov.sg/infopedia/articles/SIP_2015-12-01_132040.html [Accessed 28/01/19].

[74] Euromoney, (2018), Euromoney names the world's best banks in its 2018 Awards for excellence,Euromoney, [online], 11 July 2018. https://www.euromoney.com/article/b190rr8wlw3xxh/euromoney-names-the-worlds-best-banks-in-its-2018-awards-for-excellence. Available from: https://www.euromoney.com/article/b190rr8wlw3xxh/euromoney-names-the-worlds-best-banks-in-its-2018-awards-for-excellence [Accessed 28/01/19]

are not available and ensure a process of knowledge transfers. This will allow the National Investment Bank to build requisite skills and expertise in the UK.

Contract management will be a core skill to be developed within the National Investment Bank. High-value contracts will be reviewed by the National Investment Bank head office, to ensure consistency of approach across regions in order to meet project goals and appropriate risk management for the National Investment Bank. There is a need for contracts to be rigorous in order to ensure certainty for parties, but this does not mean the National Investment Bank has to capitulate to partners in the terms that it agrees.

Contracting parties must be able to show financial strength and resilience for the work they undertake. Pricing cannot be the dominant factor for outsourcing. Contracting parties for National Investment Bank infrastructure projects must show a high level of expertise and skill.

The National Investment Bank will take into account the value of contracts being made with government partners (for example, at the local level), in particular for the building of public capacity and expertise.

Building the National Investment Bank's institutional capacity (staff, financial and risk capabilities) will be a key objective.

Technology and Data

The National Investment Bank will need to take advantage of the innovations in credit analysis for SME business. It can look closely at how the DBS bank uses technology to reach out to SMEs. It can see the advantages of such technology used by the likes of Amazon, Alibaba, Ant Financial, Pay Pal and WeChat and WeBank (although the National Investment Bank will have due regard towards citizens' interests in issues of privacy and the requirements of GDPR[75]). The use of such technologies and data gathering and data science techniques will support the coordination of information across the finance sector and government insitutions involved in implementing industrial strategy. This will be an important element to ensure information is shared

[75] General Data Protection Regulation. In addition the NIB and RDBs would want to have policies are 'best practice' and following any guidance from the Information Commissioners Office.

between the public and private sector and between the UKRI, Bank of England and policy makers (central and regional)

Legal Framework

The National Investment Bank could be established along the KfW [76] or Norwegian Kommunalbanken AS models.[77] These entities are established by statute and are effectively not regulated under EU banking laws. KfW is a statutorily-created entity and designated as a bank. It is legally supervised by the German Federal Ministry of Finance, and the Federal Ministry of Economics and Technology. It falls outside of commercial banking regulations. Kommunalbanken AS is a local government funding agency owned entirely by the Norwegian Royal Ministry of Local Government and Regional Development.

We prefer to establish the National Investment Bank using the British Business Bank ("BBB"), which is a small scale development bank, as the existing legal entity. The NIB can build on the work done by the BBB on SME lending.

Legislative framework for governance of the National Investment Bank

In the same vein as the British Business Bank, the National Investment Bank will not be supervised by the Prudential Regulation Authority or the Financial Conduct Authority from a governance and control perspective.[78] This takes out a lot of regulatory costs (at establishment and on-going) which can be justified by the nature of the entities being set up for economic development purposes and not to maximise profits with the sale of finance products. In fact it is common among development

[76] KfW, (2013), Law Concerning Kreditanstalt furfür Wiederaufbau, KfW, 18 July 2013, Article 12, pp.12-14. Available from: https://www.kfw.de/Download-Center/KfW-Gesetz-und-Satzung-sowie-Gesch%C3%A4ftsordnungen/Law-concerning-KfW-and-KfW-By-laws/KfW_Gesetz_E.pdf. [Accessed 28/01/19].

[77] KBN, (2016), Articles of Association, Kommunalbanken AS, 29 June 2016, Article 2. Available from: www.kommunalbanken.no/en/about-us/ownership-and-governance/articles-of-association. [Accessed 28/01/19]. Note also that the nature of Kommunalbanken AS means it has effectively a government guarantee, which supports its AAA status.

[78] The National Investment Bank is not required to be regulated because of its status as a statutorily created government development bank. Nevertheless, it may be desirable that some relevant aspects of Basel III be incorporated into its regulation. For detailed discussion, see Barros de Castro, L., (2018), Financial Regulation and Risk Management in Development Banks, in Griffith-Jones. S., & Ocampo. J. A., (eds) *The Future of National Development Banks*. Oxford University Press,.2018.

banks that they are exempt from banking and capital markets regulations. Regardless, the NIB would have in place the typical systems and controls required of a bank to manage the business operations. This includes:

- Asset and liability management; and
- Risk management frameworks covering operational risk, credit risk, counterparty risk, settlement risk, leverage; and
- Treasury management for capital, funding and liquidity; and.
- Data sciences and digitalization.

In addition, the National Investment Bank will have a more robust legal, project and contract management skill set for infrastructure management. [79]

The new Asian Infrastructure Investment Bank, the European Bank for Reconstruction and Development, the Nordic Investment Bank and KfW provide useful examples of governance structures for the National Investment Bank.[80]

It is important that these are designed to prevent capture by narrow private or public interest groups, whilst also being an instrument of government policy. With this aim, broad civil society organizations, like trade unions (represented by the TUC, both national and regionally), consumer associations, SME associations and local government officials need to have representation; it is key that representatives of such bodies have the necessary training and skills to be able to contribute also at a technical level to policy design by the national and regional investment banks. It is important that these representatives are not marginalised in governance (either from the perspective of skills or of pure numbers within governance structure), to ensure that the National Investment Bank is a democratic, participatory institution, which does not fall into the top-down design traps of past state development institution.

[79] Note that this is similar to the current structure of the British Business Bank, which is technically not a bank.

[80] For an analysis of the approach of KfW and Brazil's BNDES, see Mazzucato. M., & Penna. C. R. R., (2015) *The rise of mission-oriented state investment banks: the cases of Germany's KfW and Brazil's BNDES*, ISI Growth, October 2015, . Available from: , http://www.isigrowth.eu/wp-content/uploads/2015/11/working_paper_2015_1.pdf [Accessed 28/01/19].

Capital

The National Investment Bank will already be capitalised, using the British Business Bank entity as the corporate vehicle. It will co-opt key parts of the British Business Bank's SME lending and equity finance, including the Patient Capital Fund. Further capital will be needed in year one to build up the infrastructure project finance business, and to increase availability of fund for building out capacity of the SME and Infrastructure operations.

In year one, we may want to increase equity capital by £2.5 billion, with further equity capital injections of up to £25 billion, to be able to fulfill the target of total stock of lending of £250 billion after 10 years which Labour has defined in its Manifesto. It will depend on how quickly the National Investment Bank can start doing deals once it is established.

In the longer term, a Labour government may wish the National Investment Bank to be even larger, if it wishes it to be on the same scale (per capita) as the German KfW. This will enable it to have a major role in transforming and improving the UK economy. In that case, we have estimated (based on a total loan exposure of the KfW of around €500 billion in 2017 which is approximately £440 billion, and assuming a similar scale for the UK, in proportion to its population) total exposure of the National Investment Bank should reach £350 billion, possibly in 15-20 years. This would require equity of around £40 billion; part of which would be generated from future profits the National Investment Bank will start to incur, and which would be capitalized. In fact, it is noteworthy, that most of the growth of paid-in capital of institutions, like the EIB, KfW and others, has been generated from the reinvestment of their profits into capital.

Establishing a National Investment Bank at a significant scale is very important, so it can have a meaningful impact in helping to fulfil the industrial strategy and other aims of a Labour government. On the other hand, operations may need to be increased relatively gradually, to ensure high quality lending, as well as other transactions. Indeed, banks like the EIB grew fairly slowly initially, and then expanded far more rapidly, mainly for this reason.

The government will be the 100% shareholder of the National Investment Bank. Further equity issuance would then be in line with the growth of its infrastructure loan assets and the Board's authorised leverage ratio. On the debt issuance side, a government guarantee could be utilised to achieve an AA rating (matching the current government rating) and to allow lower cost funding.

Gilt issuance amounts for the National Investment Bank's equity capital should be managed to ensure yield and bid to cover ratios maintain market stability.[81] Any additional capital would be from debt issued by the National Investment Bank.

Funding and Asset Liability Management

The National Investment Bank will raise funding through a comprehensive debt funding platform. The National Investment Bank Treasury division will establish and operate a Euro Medium Term Note Programme (EMTN Programme) which is used by entities wishing to access international capital debt markets. Supra-national entities such as KfW, World Bank, European Bank for Reconstruction and Development, the African Development Bank and many Nordic regional banks use EMTN Programmes for funding their project loans. With a government guarantee in place, funding costs should be close to gilt yields. There are opportunities to offer sustainable and green bonds for environmental and climate-focussed infrastructure projects to an increasingly interested class of 'sustainable investors'.

A Euro Commercial Paper (ECP) programme is a means for rasing short term financing from 1 month out to 9 months on international debt capital markets and may be needed to ensure proper cash management operations can be carried out. This would be determined by the National Investment Bank Executive Management Committee and the Board. ECP issuance levels would be equivalent to the UK Treasury Bill funding levels. Such short-term borrowing will assist in matching any short-term assets in the loan book related to SME lending and managing working capital needs. On the other side of the banking book, the National Investment Bank will need powers to invest in G7 and supra-national debt assets with varying terms and currencies[82], to ensure that the carry cost of funds is offset prior to deployment. The aims will be to ensure that portfolio assets will be highly liquid and rated, to protect principal.

[81] The government could issue a mix of 10 and, 30 -year gilts to fund equity if it needed a significant increase in its debt funding operations.

[82] Corporate AAA rated bonds are likely to have reputational and ethical risk issues that a NIB may not want to manage.

The National Investment Bank's Treasury will ensure hedging (and where required, repo operations) is carried out for efficient liquidity and asset liability management.

Debt funding may need to be offered in different currencies and on a fixed, or floating, rate basis. This will be hedged to manage risk. Loan assets with market risks will be managed by a mix of back-to-back funding and hedging as appropriate.

Green bonds raise finance from investors and have a committment to following socially and environmentally responsbile principles.[83] Green bond principles are voluntary guidelines for the issuance of green bonds. The National Investment Bank could offer green bonds for its climate change and sustainability infrastructure work, SME digitisation and sustainability loans.

Expert staff & capacity building

It is key that the National Investment Bank staff should have great engineering and/or scientific expertise required, and not just financial skills. There should be no quantitative financial engineering-oriented staff, other than for risk management purposes. The bank will have a clear mandate to focus its 'principal' risk on SME and infrastructure investments and not speculative investing. Instead the focus should be on real engineering, entrepreneurial and scientific skills for National Investment Bank staff, to help deliver the National Investment Bank mandate.

In order to support its broad mandate, the National Investment Bank will need to be able to invest in a wide range of areas, and develop significant in-house expertise. As the work of MacFarlane and Mazzucato shows, a key difference between successful NIBs and private financial institutions is the breadth of expertise and capacities contained within staff. In many cases, such as KfW, BPI France and the European Investment Bank (EIB), this includes not only financial expertise but significant in-house engineering and scientific knowledge about the sectors the bank is active in, and the nature of the investments being made. This enables investment decisions to be based on a wider set of criteria than relying on market signals alone, and means they are better placed to appraise social and environmental considerations.

[83] ICMA, (2018),*Green Bond Principles: Voluntary Process Guidelines for* issuing green bonds, ICMA, *Issuing Green Bonds*, International Capital Market Authority, June 2018. https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/Available from: https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/ [Accessed [28/01/19].

In fact, in its initial recruitment, the UK National Investment Banks could benefit from attracting current or former staff of institutions like KfW, NPI, EIB DBS, and indeed the UK Green Bank; some of these staff could come on a temporary (loan) basis, whilst others could be attracted more permanently.

This in-house interdisciplinary expertise amongst National Investment Bank staff will make it easier to develop an investment culture mainly focussed on achieving positive, dynamic real economy outcomes in the UK National Investment Bank; a bank which should be profit-making but not profit-maximizing.

Digitalisation skills will be an important component of skills in order to more successfully reach SMEs and streamline processes and make use of AI technology for decision support in the lending process.

The diagram below sets out the suggested organisational structure, which is explained further in what follows.

National Investment Bank – Organisation structures

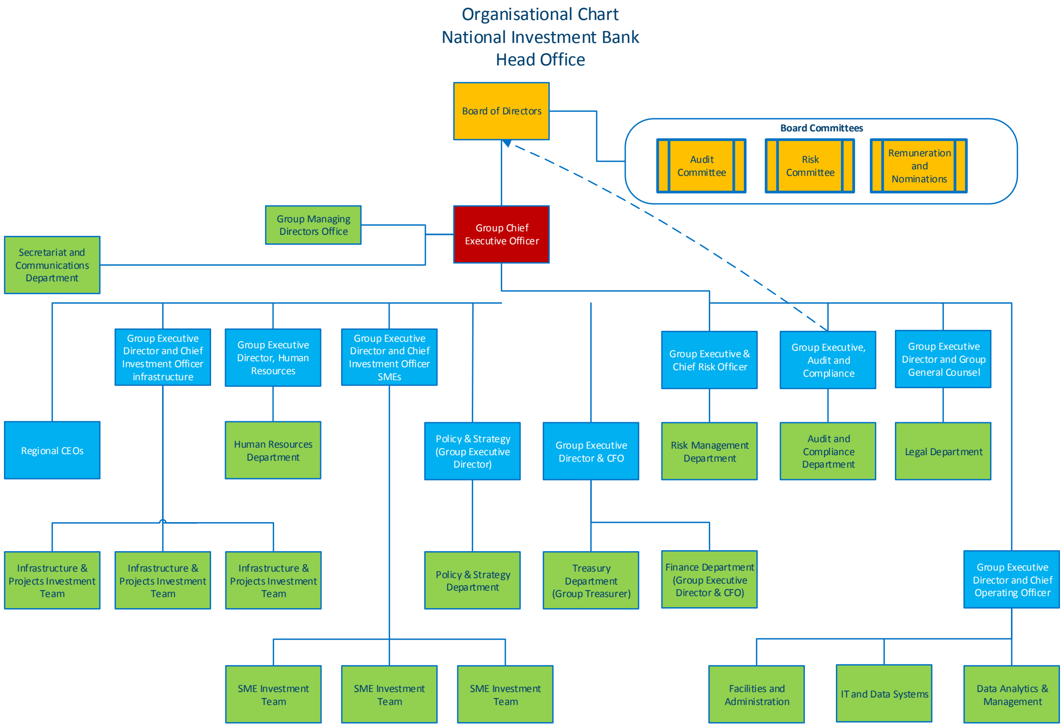

Figure 1, National Investment Bank Head Office organisation chart

Group Board of Directors

The Group Board of Directors will draft a mandate that aligns with the Sustainable Investment Board's priorities. This is to ensure we have coordination across all key institutions for the transformation of the economy and a focus on prodictive investment.

The Group Board of Directors will have the technical skills required for the operation of a bank, with specific skills in infrastructure management and SMEs. It will be wanting to have in place 'best practice' governance policies, high levels of accountability; a commitment to democratic engagement through higher levels of transparency and the make up of the board members. The National Investment Bank will be looking for the latest developments in funding and managing infrastructure which it can take from KfW and the AIIB and other national and supra-national development banks.

The Group Board of Directors:

- The Group Chairperson (to be appointed by the Sustainable Investment Board);
- The Group CEO (to be appointed by the Sustainable Investment Board);
- Five non-executive directors (with business and technical skills in infrastructure, SME investment, business management, banking and risk, trade union and worker representatives appointed by the Group Board of Directors); and
- Four 'public sector' non-executive directors (Sustainable Investment Board appointments including representatives from the Applied Sciences Investment Fund and Bank of England).

Group Board Committees

The Group Board committees will be appointed by the Board of Directors. The committees should be headed by a Group non-executive director and comprise other Group non-executive directors and senior management.

I. Audit Committee

The Audit Committee should be chaired by the most senior member of the Board, the Chair, accompanied by the Chief Financial Officer, the head of internal audit and at least two other non-executive directors.

II. Risk Committee

The Risk Committee should also be chaired by the Chair with the CEO and Chief Risk Officer as members and at least two other non-executive directors.

III. Remunerations and Nominations Committee

The Remunerations and Nominations Committee should be chaired by a non-executive director. We would anticipate that the worker representative non-executive director should chair this committee. Corporate governance policies and accountabilities for the Remunerations and Nominations Committee should be drawn up to ensure remuneration policies for all staff are approved to ensure alignment of purpose across the whole of the organisation. There should be no complex remuneration packages offered to any member of staff or directors.

IV. Group Executive Committee

The roles of the Group Executive Committee will cover the key functions of the National Investment Bank and including each Regional Development Bank. This will ensure a structure to coordinate activities, manage risk and provide effective governance across all entities.

Group Executive Committee:

- Group Chief Executive Officer;
- Group Chief Financial Officer – responsible for the National Investment Bank's financial strategies and policies including the Treasury department;
- Group Chief Operating Officer – responsible for operations, data management and systems and project management systems;
- Group General Counsel – responsible for legal risk (paying particular attention to privacy) and policies; its contractual relationships with counterparties including project partners and construction firms;
- Group Executive Audit & Compliance – responsible for internal audit and regulatory compliance;
- Group Executive Human Resources – responsible for all human resource matters;
- Group Chief Risk Officer – responsible for oversight of the National Investment Bank's risk profile (risk management and risk limits);
- Group Chief Investment Officer, Infrastructure – responsible for management of the infrastructure investment ('identification to implementation');
- Group Chief Investment Officer, SMEs – responsible for management of the SME investment);

- Group Executive Director, Policy and Strategy; and
- CEO Regional Office (CEO for each regional office).

The Regional Development Banks

Each regional office (the Regional Development Banks "RDBs") will have a Regional Board of Directors and an Executive Committee and will report up to the Group Executive Committee. Each Regional Chairperson will report to the Group Chairperson. Each regional CEO will report directly to the Regional Chairperson with dotted line reporting to the Group CEO.

Coordination between the National Investment Bank head office and RDB offices can be enhanced through quarterly meetings of the group and regional Chairpersons, with group and regional CEOs.

Regional Board of Directors

The Regional Board will be appointed in accordance with the Nominations and Appointments Matrix set out at page 47 Appointment Processes.

Regional Board of Directors:

- Regional Chairperson;
- Regional CEO;
- Four non-executive directors (with business and technical skills in infrastructure, SME investment, business management, banking and risk); and
- Three 'public sector' non-executive directors including a relevant executive from Local Enterprise Partnerships, representatives of regional unions and worker representatives.

V. Board Committees

Board committees for audit, risk and remuneration & nominations committees for each RDB, which would report through to the Group board committees of the NIB.

VI. Regional Executive Committee

The Regional Executive Committee for each Regional Development Bank ("RDB") will replicate the roles of the Group Executive Committee covering the key functions of the regional office. The Regional Executive Committee will be led by the CEO, with Regional Executive Committee members reporting directly to the CEO. Each of the executive committee roles will 'dotted line' report to their Group Executive Committee equivalent.

Regional Executive Committee:

- Chief Executive Officer;
- Chief Financial Officer – responsible for financial strategies and policies including the Treasury department;
- Chief Operating Officer – responsible for operations, data management and systems and project management systems;
- General Counsel – responsible for legal risk and policies and its contractual relationships with counterparties, including project partners and construction firms;
- Executive Director Audit & Compliance – responsible for internal audit and regulatory compliance;
- Executive Director Human Resources – responsible for all human resource matters;
- Chief Risk Officer – responsible for oversight of risk (risk management and risk limits);
- Chief Investment Officer, Infrastructure – responsible for management of the regional infrastructure investment (identification to implementation).
- Chief Investment Officer, SMEs – responsible for management of the regional lending and support.

Appointment Processes

It is proposed that nominations for the initial Board's non-executive directors, group executive committee and regional CEOs will initially be made by the National Investment Bank Implementation Board. Thereafter, the Nominations and Appointments Matrix (Table 1) would apply in accordance with any prescribed governance policies as to the make up of any committees.

VII. Nominations and Appointments

Table 1, Nominations & Appointments Matrix

Nominations	Decision Makers – Nominations	Decision Makers – Appointments
Group Chairperson, Group CEO, four 'public sector' non-executive directors	Sustainable Investment Board and National Investment Bank Implementation Board (for the initial appointments)	Sustainable Investment Board

Five ‘skilled’ non-executive directors, Group Executive Committee members (excluding Regional CEO)	National Investment Bank Implementation Board (for the initial appointments), thereafter: Remuneration & Nominations Committee	Group Board of Directors
Remuneration & Nominations Committee	Group Board of Directors	Group Board of Directors
Audit	Group Board of Directors	Group Board of Directors
Risk	Group Board of Directors	Group Board of Directors
RDB Chairperson	Remuneration & Nominations Committee	Group Board of Directors
RDB Board of Directors	Regional Chairperson + Remuneration & Nominations Committee	Group Board of Directors
RDB CEOs	Regional Chairperson and Remuneration & Nominations Committee	Regional Board of Directors
RDB executive committee members	Remuneration & Nominations Committee + Regional Chairperson + Regional CEO	Regional Board of Directors

Implementation Board

The Implementation Board for the National Investment Bank and Regional Development Banks should be convened by the Chancellor (including board appointments and funding). The implementation should be guided by the Department for Business, Energy and Industrial Strategy policy teams and private sector expertise. The Implementation Board’s role will be to carry out the administrative tasks to establish the bank.

The Implementation Board will follow a similar path for the creation of the British Business Bank, which was housed within the Department for Business, Innovation and Skills prior to its establishment as a public limited company.[84]

The Implementation Board will be the primary body charged with the establishment of the National Investment Bank entity and its governance structures. The Implementation Board will secure offices and hire administrative staff. It will lead the candidate search for the NIB's Chair and Group CEO. The Implementation Board will then support the NIB's Board of Directors in their search for the remaining five 'skilled' non-executive directors.

The Implementation Board should:

- Support the NIB's Board of Directors and Group CEO in appointing the remainder of the Group Executive Committee and RDB Chair and CEOs.

- Implement planning for establishment of RDBs.

- Work with RDB chair and CEO appointees to search for candidates for RDB Executive Committee roles. These candidates will be subject to approval by the RDB Board of Directors' Remuneration and Nomination Committee.

- Support the NIB Board of Directors and Group Executive Committee for NIB departmental appointments. The Implementation Board would in time transfer to the NIB and RDB administration.

The international experience

If countries have a fairly clear development strategy, development banks may often be more effective in funding it than government departments, as National Development Banks (NDBs) may have more technical expertise and accumulated knowledge, and can leverage public resources. Indeed, well-run NDBs seem to be in a privileged position for funding structural transformation, in that they know more about policy than

[84] See "Business Secretary appoints finance experts to Board of new British Business Bank", GOV.UK, October 17th 2013, https://www.gov.uk/government/news/business-secretary-appoints-finance-experts-to-board-of-new-british-business-bank.

commercial banks and know more about private financing than government departments (Griffith-Jones and Ocampo, 2018, p 69)

Having said what the structural reforms proposed by Labour would require, we think the coordination of both government departments in the operation of the NTF and the NIB as a National Development Bank is important.

As discussed above, having good governance of NDBs is essential, which means both an important level of autonomy to manage themselves as efficient businesses, but also clear links with both the public and the private sectors.

In this regard, it should be emphasized that the nature of financial and other support that NDBs need to give today and in the future is different to that required in the past.

At present NDBs need to play a role in supporting innovation and its adaptation to new firms and sectors. The new kinds of support naturally influence or even determine the appropriate instruments NDBs should deploy.

In this sense, research on existing NDBs, (see for example the work of Griffith-Jones and Ocampo, and of Mazzucato and Macfarlane) show new and interesting trends in the instruments NDBs use. In the case of lending, there has been a shift from first-tier to second-tier lending. However, first-tier lending can still be an important instrument, notably in the case of infrastructure. First-tier lending has the virtue of allowing NDBs a more direct impact on the implementation of industrial policy priorities; however, it seems less convenient for other loans or transactions, especially to mid-sized and smaller companies. This may be overcome with the existence of Regional Investment Banks.

In several NDBs (for example, the EIB in its implementation of the Juncker Plan or European Fund for Strategic Investments ("EFSI"), there has been a trend towards far greater use of guarantees, with a relative decline of more traditional lending.

Guarantees are clearly a valuable instrument, especially for providing access to companies without sufficient physical assets to offer as collateral, and can allow for additional leverage of the investment banks' capital, they often need to be complemented by other instruments. However, they may lead to high contingent liabilities.

Lending to new sectors or activities, where uncertainty and therefore risk is far higher, and private commercial banks may be unwilling to take such larger risks on their own, especially in loans of long maturity, remains key field for public banks. In this sense, KfW, —with its continued, far greater, emphasis on lending in spite of the high level of development of German banking and capital markets—, seems to offer valuable lessons for a UK National Investment Bank.

Co-investment and indirect investments

Co-investment with venture capital funds will be an important component for the provision of funding for 'start-up' and 'scale-up firms'.

There is an interesting surge of indirect investment by National Development Banks (NDBs), through equity and debt funds in key sectors, like green energy. The French BPI has put emphasis on these types of instruments, like venture capital and equity funds. There are important specific programs in different NDBs to support innovative start-ups and long-term innovation, where private capital is often too short-term oriented, as well as new programs to support entrepreneurship, like CORFO's Start-Up Chile, emulated in several other Latin American countries.

Our preferred model is to ramp up VC funds and equity investment (directly) to support innovation (digitisation and energy and decarbonisation transformation) for SME businesses and for the higher risk R&D commercialisation through the Applied Sciences Fund which we propose to situate in UK Research & Innovation (UKRI).

The British Business Bank currently operates a number of equity investment options through which it supports equity finance for SMEs through the Enterprise Capital Fund, the Venture Capital Catalyst Fund and the UK Innovation Investment Fund (UKIIF investment closed in 2014).

This State investment funding scales private sector VC to share risk and add depth. Much more needs to be done. We are not getting enough ramp up of funding. The NIB should take a more active role.

Co-investment by the NIB should focus on funds with an interest in patient long term capital investing in businesses that are transformative in nature or supporting sustainability, and where there is more obvious market failure because of the higher risk nature of the investment which can be addressed with appropriate skills and risk management.

Debt finance

The National Investment Bank would offer the type of products of a development bank with SMEs as its customer base. This would be through direct or indirect lending. Indirect lending would come with conditionalities for funding banks participating in on-lending to SMEs.

A key focus would be on lending criteria with additional support for firms wanting to improve performance through digitalisation, energy efficiency, decarbonisation, training, exporting and 'high growth firms':

- overdrafts and bank loan;
- peer-to-peer lending;
- asset finance;
- asset based finance;
- merchant cash advances;
- bonds and mini-bond (fixed income securities);
- mezzanine finance (convertible debt);
- export finance; and
- trade finance.

Conclusion

The funding proposed by Labour for the National Investment Bank ("NIB") and the National Transformation Fund can promote a more socially and economically cohesive UK economy. The establishment of Regional Development Banks will embed funding and decision making at the regional level and offset the strong bias towards the South-East of the UK.

A National Investment Bank as we envisage will raise the productive capability of the UK. It will need to be far bolder than the current British Business Bank for SME financing and investment funding. It can look towards the success of Kreditanstalt für Wiederaufbau (KfW) for SME financing and services.

The significant difference is in the lack of equivalent Sparkassen on-lenders and support providers. The UK will need to set up its Regional Development Banks with links to Local Enterprise Partnerships as a means of connecting locally.

It will have to strengthen that LEP and LEP Growth Hub model, which have been underfunded by local councils fom years of austerity by central Government. This strengthened model could be its direct lending operation. Other proposals have been made for lending via a revitalised Post Bank[85]. This has a lot of merit, albeit that a transformation of the Post Bank, too will take time to implement.

Another option is the partial co-opting of Royal Bank of Scotland. This was explored in *Financing Investment: Final Report*[86], but there are significant political and practical considerations some of which cannot be addressed until a Labour Government is in power. Further exploration for indirect lending with partners will be needed so we can effectively replicate a UK version of the Sparkassen model.

The large UK banks as indirect lenders to SMEs via Bank of England support have not been able to achieve the stated goals of increasing lending. We see no change in this behaviour likely without other macro-prudential measures being taken by the Bank of England and the Prudential Regulation Authority to more actively encourage productive lending.

From this perspective direct lending by the NIB through the Regional Development Banks is an important component of the structure for delivery.

The body of work on the development bank model points to their success in supporting an economy.

The UK is an outlier in not having its own development bank, though it has greatly benefitted from the European Investment Bank (EIB) which in 2017-2018 financed EUR 653 million in infrastructure and EUR 685 million in SMEs, and had funded much more in previous years.[87] That funding was running down given the uncertain outcome around Brexit, and would go down even more, probably should Brexit happen.

[85] Berry C., and Macfarlane L., March 2019 “A New Public Banking Ecosystem” A report to the Labour Party commissioned by the Communications Workers union and the Democracy Collaborative.
[86] GFC Economics and Clearpoint Advisors Limited, *Financing Investment: Final Report*, June 2018, p. 112.
[87] https://www.eib.org/en/projects/regions/european-union/united-kingdom/index.htm

The EIB is not a substitute for the UK having its own National Investment Bank with more focussed regional policies operating within coordinated institutions of government.

The UK model of an National Investment Bank can also take advantage of coordinating with other key economic, government and science institutions. Unlike the British Business Bank, the NIB should be a higher profile entity with much more interaction in the real economy and a voice to support its mandates.

The NIB and the Regional Development Banks will have to develop effective training and support to SMEs. Local connections and expertise remain the most sound way of managing credit risk to SMEs and boosting the productivity. RDBs will necessarily need to engage locally with the priate sector, local Councils and LEPs.

Infrastructure development decisions must take into account Regional Development Bank analysis. The NIB will support RDBs in infrastructure projects and ensure over time expertise is spread across the RDBs.

Our model for the NIB is designed for effective delivery of the mandate. Upfront development of the NIB structures will take time, money and effort. We are starting from a low base and should not shy away from creation of the relevant institutions for building prosperity.