Mission Accomplished?

Assessing the performance of the Scottish National Investment Bank

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FOREWORD

The Scottish National Investment Bank (SNIB) is among the Scottish Government's boldest policy gambles. Inspired by the accomplishments of similar state banks around the world, it is an attempt to use public money to stimulate underdeveloped and underfunded markets that are crucial to Scotland's future, for example in the digital and renewable energy sectors. Its mission-based strategy means it also carries the responsibility of advancing broader societal goals, such as the transition to net zero and improved equality of opportunity. It seeks in time to become self-funding and to make a profit for the taxpayer.

Just over a year into its existence, it is too soon to say whether the bank will be a long-term success or failure. But it feels like an appropriate moment to cast a well-intentioned eye over its performance so far, to examine its visible strengths and weaknesses, and to propose any necessary adjustments. That is what Professor Ross Brown, an expert in entrepreneurship and small business finance, does in this paper, which he describes as a "debate article".

Reform Scotland welcomed the creation of SNIB and continues to believe it is a commendable and important project. Its early months have not been trouble-free, but this is often the case with start-ups, and in our experience it has an excellent board and a strong executive team. It is exactly the kind of big, ambitious policy experiment that Holyrood should be embarking on, and we'd like to see similar ambition and risk-taking in other areas of government activity.

We see no reason why SNIB should not be a long-term success. And we hope this paper, in its spirit of constructive criticism, can play a small part in helping it towards that happy outcome.

Chris Deerin
Director
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Synopsis

The recent establishment of the new "mission-oriented" Scottish National Investment Bank (henceforth SNIB) signalled a bold and innovative new approach in terms of Scotland's economic development apparatus. However, since its establishment the bank has also been mired in a degree of controversy regarding the renumeration of its staff, the probity of its investment portfolio, its operational effectiveness and the departure of its CEO.

By adopting a vague mission-orientation for the bank, the Scottish Government potentially shackled it with a large number of unintended consequences in terms of how it can act and operationally perform. It appears that a mission focus for the bank may encourage a preference for larger, bulky, infrastructure-type investments rather than firm-specific investments, despite the latter being the core focus according to the original documentation delineating SNIB's activities.

In terms of its performance to date, it appears that there has been a very modest overall number of investments funded by the bank. Indeed, the fact that only seven companies have received funding suggests the overall economic impact of the bank is likely to be very modest in the short to medium term. The low levels of interest in enquiries regarding funding from SNIB may also limit the impact of the bank in terms of economic development.

It appears that the concerns expressed by some commentators prior to the establishment of the bank may indeed have been realised, which in turn has hindered its operational efficacy. A large part of that seems to stem from the vague mission-orientation ascribed for the bank. In many respects the poor performance exhibited by SNIB may ultimately be due to the "impossible mission" set by the people who constructed its *modus operandi*.

Going forward, the bank needs a clearer delineation of its core strategy and customer base. The Scottish Government has to decide if the bank is designed to help develop the green infrastructure of the Scottish economy or to become an engine propelling business growth in small and medium-sized enterprises (SMEs) in Scotland. The two are very different objectives and using the same instrument to achieve both seems at best ill-advised, and at worse foolhardy. Given the original intentions for the bank outlined by the Scottish Government, the latter seems to be the most pressing objective, given the need for long-term patient capital to help upscale growing firms in Scotland.

The levels of finance available to the bank look somewhat paltry, given the size of the task at hand in terms of it becoming an economic game-changer. Perhaps the Scottish Government should be bolder and use existing resources channelled into poorly performing organisations like Scottish Enterprise (SE) to increase the budget for SNIB to invest in Scottish firms. Organisations such as SE are outmoded and poorly equipped for nurturing and upscaling growth-oriented firms to enhance the Scottish entrepreneurial ecosystem. The bank also needs to creatively leverage external private sector "smart money" to help upscale Scottish firms. Despite the considerable promise envisaged for the bank, to date its mission looks rather unaccomplished. If Scotland is to become genuinely ambitious and entrepreneurial - a so-called "start-up nation" – then public policy will have to become much bolder and imaginative than at present.

1. Introduction

According to some eminent academics, long-term investing and patient capital has "never been more important than today"[1]. Therefore, the recent establishment of the new "mission-oriented" Scottish National Investment Bank (henceforth SNIB) signalled a major policy innovation in terms of the nation's existing economic development apparatus. While new to Scotland, there is a growing number of public banks, totalling over 900 worldwide[2]. The Scottish Government earmarked significant resources (£2bn capitalisation over the first ten-year phase)[3] and invested considerable political capital in this major new mission-based policy initiative. Despite the attendant fanfare, several academic and media commentators have expressed serious concern over the validity and appropriateness of the bank's somewhat ambiguous, unspecified, and vague proposed remit[4]. This paper's key intended contribution is to critically examine the rationale for, and validity of, a mission-oriented, state-owned investment bank by examining the problems associated with their practical application via a new body such as SNIB. It will also take stock of the bank's performance since being launched in 2020. This is an important exercise, especially given the very secretive and defensive nature of the Scottish Government following the recent unexplained departure of the bank's initial Chief Executive[5].

While the precise origins of the bank are somewhat opaque, the Italian economist Mariana Mazzucato claims to have played a pivotal role devising proposals for SNIB. Drawing on her (alleged) "path-breaking" research[6], the central ethos underlying the bank is that it will be infused with a "mission-oriented" focus to help steer its investments. This has been loosely defined as "systemic public policies that draw on frontier knowledge to attain specific goals"[7]. Scholars originally labelled this approach as "big science deployed to meet big problems"[8]. Mission-oriented policies are often associated with radical technological breakthroughs which are heavily associated with a linear science and technology-based approach to innovation. Consequently, some refer to them as "moonshots" because they draw inspiration from the famous NASA Apollo space programme.[9]

The Scottish Government claims that a mission-oriented approach for SNIB will provide transformative solutions to "problem-specific societal challenges" and the missions set for the bank will "provide a focus for its investment strategy"[10]. State-run investment banks guided by specific missions "tend to be more effective" than those focusing purely on promoting growth or competitiveness[11]. Despite this very bold assertion,

[1] Ivashina and Lerner (2021, p. 1)
[2] Public banks have a long institutional legacy going back more than six centuries to the first municipal banks founded in Barcelona and Genoa, followed by Venice, Naples, Amsterdam, and Hamburg (Marois, 2022).
[3] According to the bank's website they are able to invest up to £50 million in equity or debt, or a combination of both, in an individual business or project.
[4] see Deerin (2019); Jamieson (2019); Brown (2021)
[5] https://www.bbc.co.uk/news/uk-scotland-scotland-business-60522798
[6] Mazzucato and MacFarlane (2019, p. 29)
[7] Mazzucato and Semieniuk, (2017, p. 33)
[8] Ergas (1987, p. 193)
[9] Bloom et al (2019).
[10] Scottish Government (2018a, p. 11)
[11] Mazzucato and MacFarlane (2019, p. 19)

during a review of eight state-owned banks by Mazzucato[12] there is no proper attempt to assess their perceived effectiveness compared to those focused purely on promoting productivity growth or competitiveness.

State-owned investment banks are heterogeneous organisations performing three main roles i) a counter-cyclical role; ii) a capital development role; and iii) a new venture support role. The specific policy instruments deployed by these banks are often heterogenous, encompassing grants, soft loans, credit guarantees and equity co-investments. According to the Scottish Government, the intended focus of SNIB suggests it is likely to concentrate on capital development for new ventures by providing "innovative, high-growth Scottish firms" with long-term patient finance[13]. Given its wide-ranging remit, it is hard to precisely pigeon-hole this new body as either an instrument of enterprise policy or infrastructure policy. On the face of it, SNIB intends having a "systemic" remit, simultaneously fostering innovation and supporting funding for small and medium-sized enterprises (SMEs). While systemic policy instruments are integrated tools designed "for a specific innovation system or part of a system"[14], the choice of such a "policy mix" is often crucial for the effective formulation of public policy.

This paper is primarily a debate article, which is a good method for questioning assumptions which can often go unchallenged within different policy realms[15]. The widespread acceptance of ideas such as the profundity of normative mission-oriented policies is a commonplace assumption rapidly becoming the received wisdom by de fault despite a lack of evidence to support such a belief. Indeed, in many cases it may be hard to "articulate and economic rationale behind these moonshots"[16], making such scrutiny all the more important. Indeed, Mazzucato herself acknowledges that the appropriate tools for deploying mission-oriented goals are far from certain. In contrast to most policy analysis and evaluation which typically examines policies *ex post* after their deployment, this paper examines the effectiveness of policy making during the crucial policy formulation phase and the operational roll out of the bank in 2020. It our hope that this can help inform the bank's future activities to help enhance its future operational performance.

While primarily a debate article, the paper draws on a range of empirical evidence sources such as the bank's academic blueprint, Scottish Government documentation, interviews with senior policy makers charged with implementing the bank, and freedom of information requests made to SNIB. Further details of the research process undertaken to examine SNIB are outlined elsewhere[17]. This evidence provides a strong vantage point to empirically examine the operational effectiveness of a mission-based state-owned investment bank.

[12] Mazzucato and MacFarlane (2019)
[13]Scottish Government (2018a, p. 11)
[14] Wieczorek and Hekker (2012, p. 86)
[15] see, for example, Brown (2016)
[16] Bloom et al, (2019, p. 20)
[17] Brown (2021a)

2. Institutional Architecture and Public Policy Objectives

We now seek to examine the concept of a mission orientation for a state-owned investment bank. During the last 30 years, it has become something of a "stylised fact" that institutions are deemed crucial for economic growth and development[18]. At the same time, the entrepreneurship and innovation literature is replete with empirical evidence demonstrating how the design of institutions strongly conditions their "effectiveness"[19]. In other words, what goals institutions adopt, what activities they focus upon and how they operate all acutely matter. Obviously, a crucial issue affecting the design of innovation policies is the intended aims and "types" of innovation they seek to foster. Broadly speaking, much of what falls under the rubric of technology and innovation policies can be categorised as either "mission" (or challenge) or "diffusion" oriented models. These are aligned to the two main different forms of knowledge and modes of innovation depicted by Jensen et al (2007).[20] This important distinction has quite far-reaching implications for the operation of innovation and enterprise policy frameworks under these different approaches[21].

Under a mission-oriented approach, innovation policy is associated with major Science, Technology and Information (STI) projects which aim to reap major technological discoveries. Typically, in mission-oriented economies a "few bets are placed on a small number of races"[22], with NASA's attempts to put a man on the moon being an "archetypical historical mission"[23]. The creation (and eventual demise) of Concorde is offered as an example of an ill-fated mission-oriented approach. Embedded in these approaches is the desire by policy makers to promote radical technological development which can address specific challenges high on the political agenda. Recently, the adoption of this mission-oriented policy framework has seen the locus of innovation policy become focused on projects supporting major transformative societal change such as demographic and climate change.

Mission or challenge-oriented policy is often driven by political and normative goals (e.g. UN Sustainable Development Goals) which have a very broad scope. While most frequently associated with innovation agencies, other types of institutions, such as state-owned investment banks and energy agencies, are now being similarly tasked with a mission-orientation remit[24]. Research shows that the so-called "missions" some state-owned banks have adopted include climate change and the environment, food security, globalisation and technological progress and demographic change. Examples of "mission-oriented" investments include the European Investment Bank's €14.7 billion commitment to sustainable city projects and KfW's support for Germany's Energiewende policies through the greening of German industries.

[18] North (1991)
[19] Breznitz et al (2018, p. 883)
[20] Jensen, M. B., Johnson, B., Lorenz, E. & Lundvall, B. Å. (2007) Forms of knowledge and modes of innovation, *Research Policy*, 36(5), pp. 680–693
[21] See Brown and Mason (2014)
[22] Ergas (1987, p.194)
[23] Mazzucato and Semieniuk (2017, p. 33)
[24] See Geddes et al (2018)

Mission-oriented countries often heavily prioritise a highly linear STI view of innovation. Under this model new technology-based start-ups are seen as a crucial part of the radical or “breakthrough” approach to innovation. Spurred on by the success of Silicon Valley, mission-oriented countries have increasingly focused on promoting the model of innovation often associated with a “patenting-seed/angel/venture fund-incubator” model of business growth, often underwritten by considerable non-repayable public research grants[25]. Within these economies state-funded innovation agencies such DARPA in the US often play a crucial role. DARPA’s mission was to define cutting-edge defence technological problems and then build up a network of researchers from academia and industry to explore new technologies.

A “diffusion” oriented approach, on the other hand, is markedly different. Within this context, there is a more experimental, interactive and relational approach towards innovation. Sources of knowledge arise from doing, using and interacting (DUI) processes which typically arise from inter-firm collaboration. DUI is based on an iterative, recursive form of learning which arises from a bricolage approach (i.e. ad hoc, make do with what you have got, experimental etc.) towards innovation. This is a fundamentally interactive or open process involving firms and intermediaries which involves “knowledge recombination among diverse knowledge and practice sets”[26].

Scholars vividly demonstrate the differences between DUI and STI “breakthrough” approaches towards innovation in their study of the Danish and US wind turbine industry[27]. In the US, there was a focus on producing a radically new high-tech, light-weight and high-speed turbine. However, this led to a much lower degree of mutually supporting inter-actor relationships to build up a stock of knowledge to ensure their robust operation. Whereas in Denmark there was less emphasis on developing dramatic solutions, instead strong networks of actors gradually built up their technological competencies. Ultimately, the lower-tech and incremental DUI approach evident in Denmark prevailed over the more radical STI breakthrough approach embedded in the US firms.

Within diffusion-oriented contexts such as Scandinavia and Germany, the primary goal of innovation policy is “to provide a broadly-based capacity for adjusting to technological change throughout the industrial structure”[28]. The main strategic rationale for diffusion-oriented policy making is more prosaic and practical, with a strong focus on productivity enhancement and competitiveness. Instead of a focus on radical innovation development policy, it often focuses on incremental innovation such as competency-enhancing human resource practices. In diffusion economies, much greater emphasis is placed on developing existing firms and fostering networks of SMEs and creating inter-linkages between these firms and public technology-transfer institutions. This type of innovation development is very akin to how the so-called Mittelstand has developed through dedicated family businesses and localised institutions such as the Fraunhofer Institutes and regionalised banks.

[25] Cooke (2016, p. 192)
[26] Ibid
[27] Garud and Karnøe (2003)
[28] Ergas (1987, p. 205)

In diffusion-oriented contexts, policy typically emanates from decentralised and localised institutions focused on productivity enhancement within existing organisations (i.e. economic gardening) and fostering interactive learning in networks of SMEs. Often a core aspect of policy is on productivity enhancement via organisations labelled "productivity facilitators"[29]. As Cooke (2016) notes, parts of Scandinavia such as Denmark and Norway have several of these types of organisations which help nurture DUI type innovation across networks of SMEs. For example, the Norwegian Centre of Expertise programme was initiated in 2006 and develops "crossover initiatives" to help disseminate technology competences in one industry (oil & gas) to solve challenges in other sectors such as aquaculture (Isaksen and Jakobsen, 2017). Often such organisations like the GTS Institutes in Denmark and the Fraunhofer Institutes in Germany have very strong links to the private sector and sell their services on a commercial basis, ensuring research is customised to the needs of industry. This local embeddedness and local orientation discourages longer-term "blue skies" research and precludes them from "getting involved in the creation of start-ups", which is often risky and problematic for the public sector[30].

According to a number of scholars, the implicitly linear Science and Technology-based approach to innovation associated with a mission orientation may be more appropriate in regions with "advanced" entrepreneurial ecosystems. Conversely, they may be less suited to weaker and more peripheral regions such as Scotland, which may at the same time be more susceptible to "policy capture" by powerful incumbent actors such as universities or larger firms.[31]

3. Messy Missions and Implementation Issues: A Critique of a Mission-Orientation for State-Owned Banks

Surprisingly, the original blueprint for the bank failed to delineate a cogent case for an explicit or transparent set of missions appropriate for a state-run investment bank. It therefore becomes somewhat unclear what missions the bank has finally coalesced around. The authors discuss the fact that the UN's 17 sustainable development goals are useful but remain for the most part "too broad to be actionable"[32]. Vague reference is also paid to the 81 economic, social and environmental performance indicators adopted by the Scottish Government under its National Performance Framework. They acknowledge that translating missions into concrete actions is problematic by stating that the "granularity" of missions "sits between broad challenges and concrete solutions"[33]. They also claim that selecting missions should be an open and inclusive process whereby "public participation in the selection of missions is essential"[34], yet fail to offer a practicable mechanism for achieving this democratic objective.

[29] See Breznitz et al, 2018
[30] Breznitz et al (2018, p. 887)
[31] Brown, 2021a; Flanagan et al, 2022
[32] Mazzucato and MacFarlane (2019, p. 10)
[33] Mazzucato and MacFarlane (2019, p. 11)
[34] Mazzucato and MacFarlane (2019, p. 25)

They do however offer a number of very opaque overarching recommendations for the bank. For example, they propose the bank will not simply seek to fix market failures but instead will "create and shape new markets aimed at tackling modern societal challenges"[35]. In order to achieve this indeterminate goal, they then offer a fourfold schema of what a mission-oriented organisation should resemble. They claim it should "pick the problem, not sectors"; "focus on societal relevance"; "no one size fits all"; and "foster experimentation". These vague heuristics are fine as high-level guiding principles, but they clearly fail to delineate what they mean in terms of the operating procedures for a state-run investment bank.

The implementation plans outlined by the Advisory Group set up to advise the government also offers fairly vague advice in terms of the specific missions applicable for the bank. They claim the bank should focus its investment strategy on support for innovative, high-growth Scottish firms irrespective of sector. Rather than a democratic process advocated above, they claim that the Scottish Government should be responsible for "setting the missions for the Bank on a pre-determined timeframe and aligned to policy priorities"[36]. However, they do elaborate further by suggesting that the core objectives for SNIB could entail focusing on the following three societal challenges: transitioning to a low carbon economy; responding to demographic changes; and promoting inclusive growth. Implying the need for complementarity with other Scottish Government policies, they claim that regulation and alignment with other agencies is deemed necessary to achieve these missions.

While it would be very hard to disagree *per se* with the merits of the missions conferred upon the bank as outlined above, it does raise some thorny issues in terms of their practical implementation. Mazzucato herself recognised that it will be difficult to make these missions "actionable" - they rather skirt around the types of contradictions which a mission orientation may conjure up for SNIB. Below we highlight two main issues (focus and implementation) which help shed important light on some of the potential problems and tensions confronting a mission-oriented bank.

Firstly, in terms of focus, proponents of mission-oriented policies tend to downplay the complexity of the missions in question. This stems from the fact that academics, such as Mazzucato, rarely confront the often intractable difficulties of operationally implementing mission-based policies. Some make the very important point that the objective of getting "a man on the moon" had a narrow and well-defined objective and end goal[37]. Societal challenges, on the other hand, such as climate change or alleviating poverty, are systemic, multi-faceted, so-called "wicked" problems inevitably involving a wide array of stakeholders, interests, and institutional levels. In other words, the solutions for these complex issues are not clear from the start which makes the operationalisation of these goals ever more difficult for a single organisation to enact, pointing "towards the immense normative, discursive, and operational difficulties of challenge-oriented policies"[38].

[35] Mazzucato and MacFarlane (2019, p. 5)
[36] Scottish Government (2018b, p. 12)
[37] Boon and Edler (2018)
[38] Boon and Edler (2018, p. 443)

To address these types of fundamental challenges, policy makers will require a much wider constellation of actors and stakeholders. For example, there is no proper delineation around who is eligible for funding, be it firms or other public sector or third-party actors and organisations. This could potentially create confusion when trying to assess applications for project finance, especially as major environmental initiatives tend to have public sector involvement. Another important consideration concerns the acute differences when assessing between a firm's application for finance and finance for an infrastructure project such as automotive electric charging installations. The capital requirements and levels of due diligence are also significantly distinctive between these different investment propositions, as are the likely payback timescales and anticipated debt repayment schedules etc. This kind of lack of clarity could potentially impede and slow decision making by SNIB. It may also encourage a preference for larger, bulky infrastructure-type investments rather than firm-specific investments, despite the latter being the core focus according to the original documentation delineating SNIB's activities.

At present there is a fairly limited understanding of how state-owned banks balance different objectives in managing credit risk[39]. Even less is known how this occurs in mission-oriented institutions such as SNIB. *Prima facie*, it appears that certain issues may make this process problematic in a state-owned bank. Part of this owes to the fact that public sector employees may have limited experience and expertise in evaluating different commercial investment propositions. As is often the case in finance, incentive problems are at the root of this issue since public sector bureaucrats do not face incentives designed to reward efficient resource allocation[40]. According to the World Bank, "government officials often lack the expertise to be effective managers, they also face conflicts of interest due to their desire to secure their political base and reward supporters, which often goes against efficient resource allocation"[41].

Linked to this problem is the issue of regulatory capture, which is another possible downside affecting the focus of a mission-oriented approach within entrepreneurship and innovation policy. Economists are often sceptical of such mission-oriented policies because political decision-making may be more likely to favour certain sectors, especially those who engage in lobbying. According to some scholars, "failure to admit this 'truth' in relation to public banks is to court idealistic and naïve policy-making"[42]. Indeed, owing to the political imperatives facing the Scottish Government, some commentators have suggested SNIB could be used as a "hobby horse"[43] for propping up lame ducks rather than promoting fast-growth firms. This is all the more salient as the incumbent Scottish Government has a very worrying track record of being very dirigiste and meddlesome in terms of industrial policy[44].

[39] see Yaun et al, 2022
[40] See Marois (2022)
[41] Demirgüç-Kunt and L. Servén (2010, p.99)
[42] Barth et al (2006, p.34-35)
[43] Deerin, 2019; Jamieson, 2019
[44] For example, when Prestwick Airport went into administration in 2013 the Scottish Government decided to acquire it and have since pumped in almost £50m despite the fact that it continues to run at an operating loss (Jamieson, 2019). The nationalisation and subsequent funding given to the ship builder Ferguson Marine is further testament to the Scottish Government's appetite for misguided state intervention.

According to the Advisory Group who designed the bank, any missions set for the bank would provide a focus for its investment strategy "but not constrain the Bank's activity"[45]. Implicit in this statement appears to be considerable "wriggle room", given the opaqueness of some of the parameters set for SNIB. This may be especially true as the allure of SNIB's mission-oriented approach appears to have been strongest among Scotland's politicians rather than those actually charged with the precarious task of implementing this complex new policy intervention. Indeed, "insulation from policy pressures" often invites the adoption of "fuzzier concepts" such as the mission-based approach examined herein[46]. This seems likely to lead to "mission drift" as political priorities become reactive and "issue-based" rather than mission-driven.

Mission-oriented policies may also be susceptible to "policy capture" by other incumbent anchor organisations and stakeholders in the economy. Research has shown that in some weaker peripheral innovation systems universities often play a disproportionate and dominant role in shaping the nature of the entire innovation system and funding mechanisms resulting in a form of "policy capture"[47]. Despite this form of funding often having a fairly low level of effectiveness[48], these bodies are extremely adept at extracting significant volumes from various sources of public sector funding. Again, this vulnerability is especially pertinent in Scotland given that the very low levels of R&D undertaken by most existing Scottish SMEs often prompts policy makers to activate university-oriented public policies.

A further set of issues concerns problems linked to implementation and the bank's core objectives. The fact the bank is operationally and administratively independent of the Scottish Government could give rise to "agency problems" if SNIB (i.e. the agent) is at variance with the principal (i.e. the Scottish Government). When a gap exists between policy aspirations and the implementation of appropriate instruments we speak of "implementation failures". An example of such inconsistencies is what an environmentally oriented bank would do when faced with requests for funding which do not easily "sit" with a mission such as climate change mitigation. This could arise in a number of ways. The bank may de-emphasise the missions selected and concentrate its activities towards investable companies and projects, irrespective of how this aligns to the principal's missions. The fact the bank aims to make a positive financial return and become financially self-sustaining could push it towards such a risk-averse approach. Furthermore, it could prove very hard to operationalise a vague mission like decarbonisation on a project- by-project basis, especially as many investments facilitate product/process innovations which could ultimately lead to productivity improvements which in turn could reduce a firm's carbon footprint. Indeed, in theory almost any investment project could be justifiable under this overarching mission by the agent.

Another potential conflict in its mission-oriented approach is the latitude for goal incongruence between the bank's missions and a firm's objectives. Another example could see tensions emerging between a mission such as inclusion and the end goals of

[45] Scottish Government (2018b, p.12)
[46] Markusen (2003, p. 713)
[47] see Brown (2016)
[48] see Bloom et al (2019)

the recipient firms. The promotion of economic inclusion suggests a wish to promote stable employment conditions for workers. However, many new innovative practices could in turn increase capital investment and hence displace or erode employment levels within recipient firms, especially for many service sector employees[49]. So while these investments are good for a single company's productivity they may end up thwarting the overall goal of producing employment stability within the workforce and promoting inclusion.

In sum, having detailed some of the potential pitfalls of deploying a mission-orientation within an organisation such as a state-owned investment bank we can see that adopting a vague mission-orientation potentially besets an organisation with a large number of unintended consequences in terms of how it can act and operationally perform.

4. Assessing the Current Performance of SNIB

We now seek to assess the nature of the bank's performance since its inception. However, it is worth beginning by noting the bank was established at the beginning of a worldwide pandemic which has caused major economic dislocation around the entire world economy. This has caused major disruption both in terms of the functioning of capital markets and the drivers shaping the demand and supply for various kinds of finance[50]. Indeed, the first Chief Executive Officer of the bank was appointed during the Spring of 2020 when Scotland entered its first lockdown due to the Covid-19 crisis. Progress in terms of the bank's operations may have been undermined as a consequence of this very challenging operating environment.

Having assessed SNIB's investment portfolio since its inception we are able to make a number of observations around the bank's performance to date. Given the formative state of SNIB we can only scratch the surface of how effectively the bank is performing. That said, we are able to provide some preliminary insights into the manner and nature of the bank's operational and strategic focus. It appears that the volume of interest in terms of enquiries regarding funding has been relatively limited since its inception in 2020. Up until February 2022 there had been a mere 105 enquiries regarding funding, 100 from private sector organisations and 5 from the third sector. No enquiries had been elicited from the public sector. This low level of interest may be reflective of the lack of publicity associated with the bank within the Scottish business community. To the best of our knowledge, there has been no marketing or advertising to raise the visibility of the bank within the business sector. This appears somewhat incongruous given the level of political capital invested in it. Like a commercial bank, state-owned banks need to have customers to generate a strong deal flow.

Relatedly, in terms of committed projects, again it appears that there has been a very modest overall number of investments funded by the bank. At the time of writing in

[49] see Frey and Osborne (2017)
[50] see for example, Brown et al, (2020); Calabrese et al (2021)

May 2022, a total of 15 projects have been funded by SNIB. Together these projects constitute a total of £203.4m in investment committed since the launch of the bank in 2020. Some of these projects are relatively modest investments in specific companies (i.e. £1m for R3 IOT and £3m for IndiNature, £3m in Travelnext), while others are extremely large scale investments to create a fund for other organisations to deploy (£50m Gresham House Forestry Fund; £40m PFP Capital), while yet others are infrastructure-based projects (e.g. £30m for Aberdeen Harbour; £20m for Lothian Broadband Group, £13 Circularity Scotland). Overall, there seems to be a fairly even split between projects involving individual companies and those involving groups, funds and partnerships with multiple actors. The largest single investment made by the bank in a single firm is the £12.5m allocated to the Glasgow-based photonics firm MSquared Laser. The nature of these deals - in terms of which are debt-based versus equity-based - is not disclosed by the bank. The most frequently cited mission for the bank's portfolio of investments is the environmentally-oriented one around achieving "net zero".

It appears that the projects funded are a very heterogenous collection of investments. Many of these infrastructure-focused projects seem akin to the types of investments made by the now privatised Green Investment Bank, a specialist in green infrastructure, project delivery and the management of portfolio assets. What seems surprising is the lack of investments made in individual companies. In terms of the types of firms intended to be targeted for support, the bank's explicit focus is specifically on the provision of growth capital for innovative "high growth" Scottish SMEs[51]. The implementation plan strongly suggests that businesses who can "accelerate new innovation" and those driven by "knowledge and ideas" merit support, rather than those with a strong base of fixed and tangible assets (i.e. typical SMEs). Perhaps with the exception of a group of hotels (£4.45m to Highland Coast Hotels), this would certainly chime with the nature of the firms supported by the bank. However, the fact that only seven companies have received funding suggests the overall economic impact of the bank is likely to be very modest in the short to medium term. The low level of enquiries regarding funding from SNIB may also limit the impact of the bank in terms of economic development.

One explanation for the low numbers of projects being funded could be the slow and bureaucratic decision-making processes in the bank. To date, it has not issued a transparent and clear account of exactly how projects are appraised. Despite the fact that the bank employs over 60 people, it appears that much of the due diligence and project appraisal for investment propositions is outsourced to external lawyers who are commissioned by the bank[52]. This is likely to slow down the responsiveness of the bank's risk assessment procedures and will probably favour less risky and larger projects. Indeed, one SME applicant who submitted a request for a small amount of funding was declined by a legal firm, leading the entrepreneur to declare the bank as the "*Sorry Not Interested Bank*".

While on paper this may portray a valid and cautious approach by SNIB, lawyers are highly unlikely to have the ability to make commercial decisions about the veracity and

[51] Scottish Government (2018a, p. 11)
[52] https://www.dentons.com/en/about-dentons/news-events-and-awards/news/2022/january/dentons-advises-scottish-national-investment-bank-on-two-major-investments

viability of projects, and how they might aid economic development. Neither can they add any subsequent value-added assistance to the businesses funded. Indeed, one of the major concerns about financial assistance from the public sector is the fact that it essentially offers "dumb money"[53]. This explains why ventures funded by public sector support programmes often perform less effectively than those funded by private sector actors such as venture capitalists (VCs) and business angels[54]. Money from VCs and angels often entails considerable assistance in terms of entrepreneurial mentoring, network facilitation and customer engagement[55]. Funding from SNIB is inherently "dumb money", offering none of these vital benefits conferred on firms from private sector investors. As recently observed, most publicly funded programmes offering "dumb money" have "not been successful"[56].

5. Conclusions and Policy Recommendations

We now wish to offer some brief conclusions and suggestions to potentially improve the potential for SNIB to make a stronger contribution to economic development in Scotland. It appears that the concerns expressed by commentators prior to the establishment of the bank may indeed have been realised, which in turn has hindered its operational efficacy. A large part of that seems to stem from the vague mission-orientation ascribed for the bank. In many respects the poorer aspects of the bank's performance may ultimately owe to the "impossible mission" set by the people who constructed its *modus operandi*. In particular, the vague and under-specified role deemed appropriate by academics with little experience of deploying complex public policies seems to be at the core of the policy incongruence. The fact that the author of the bank's original blueprint has no prior policy experience of designing complex financial instruments seems all the more alarming, especially given Mazzucato's significant role in advising the Scottish Government. By focusing on vague heuristics and broad missions, SNIB looks rather unfocused and ill-conceived, which is reflected in the rather heterogenous and very small number of projects currently being funded by the bank. This weak performance is all the more problematic given the very high levels of remuneration being awarded to the senior management team of the bank[57].

Going forward, the bank needs a clearer delineation of its core strategy and customer base. Being beholden to vague missions is not an effective strategy for a publicly-owned bank. Adopting a vague strategic approach at its inception makes SNIB susceptible to "mission creep". The Scottish Government has to decide if the bank is designed to help develop the green infrastructure of the Scottish economy (like the UK's former Green Investment Bank) or to become an engine propelling business growth in SMEs in Scotland. The two are very different objectives and using the same instrument to achieve both seems at best ill-advised and at worst foolhardy. Given the

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[53] Smart money on the other hand, denotes the value-added external investors such as VCs confer on firms in terms of mentoring, assistance, networks, customer engagement (see Brown et al, 2020).
[54] Cumming et al, (2017)
[55] See Brown et al, (2021); Cowling et al, (2020)
[56] Murray (2021, p. 222)
[57] A freedom of information request revealed that the senior management team is comprised of four individuals who receive a combined salaries totalling £600,000.

original intentions for the bank outlined by the Scottish Government, the latter seems the most pressing objective, given the need for long-term patient capital to help upscale growing firms in Scotland. The bank also needs to better leverage deeper pockets of "smart money" from major VCs and other major investors from outside the Scottish economy. Money alone will not help grow these into firms with the ability to upscale and internationalise.

Programmes such as the Yozma Fund in Israel are very instructive on how financial instruments can leverage external capital to help grow indigenous businesses[58]. A novel form of development would be to establish a fund in conjunction with a major overseas VC to help grow Scottish firms using "smart" rather than "dumb money". The levels of finance available to the bank look somewhat paltry given the size of the task at hand. Perhaps the Scottish Government should be bolder and use existing resources channelled into poorly performing organisations like Scottish Enterprise to increase the budget for SNIB to invest in Scottish firms. According to some commentators, organisations such as these are outmoded and poorly equipped for nurturing and upscaling growth-oriented firms[59]. Given the rather opaque nature of the bank, in future a much stronger marketing and advertising campaign should be deployed to inform the Scottish business sector of the opportunities provided by SNIB. A refocused SNIB has the opportunity to act as a powerful and innovative engine for economic growth in Scotland but in its current guise it falls well short of this desirable objective. If Scotland is to become a genuinely ambitious, entrepreneurial, so-called "start-up nation", public policy in Scotland will have to become much bolder and imaginative than at present.

[58] See Lerner (2010); Wonglimpiyarat (2016)
[59] See Brown (2021b)

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