



IPPR Commission on Economic Justice

Financing Investment

**Reforming finance markets
for the long-term**

Discussion Paper

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IPPR Commission on Economic Justice

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IPPR Commission on Economic Justice

The IPPR Commission on Economic Justice is a landmark initiative to rethink economic policy for post-Brexit Britain.

Launched in November 2016, the Commission brings together leading figures from across society – from business and trade unions, civil society organisations and academia – to examine the challenges facing the UK economy and make practical recommendations for reform.

The Commission is undertaking a wide-ranging programme of research and policy consultation on issues including industrial strategy, macroeconomic policy, taxation, work and labour markets, wealth and ownership, sub-national economic policy and technological change. Through a major programme of communications, events and stakeholder engagement it aims to contribute to both public debate and public policy on the economy. Non-partisan, it has been welcomed by both government and opposition parties.

The Commission's Interim Report will be published in September 2017 and its Final Report in September 2018.

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Summary

The reform of financial markets is vital if the UK is to be upgraded to a high-investment, high-productivity and high-wage economy. The financial sector is a major employer and earner of foreign exchange, but it is not sufficiently supporting long-term investment in the UK domestic economy. Small, high-growth firms are frequently unable to access the bank lending they need, while the markets and institutions that trade shares in public companies have created excessive pressures towards short-termism. Reform of the UK's financial sector should therefore be focused both on improving the flow of capital to the businesses most in need of investment, and aligning the incentives among company directors, intermediary institutions and savers to promote longer-term investment.

This conclusion is based on three key propositions:

- 1. The profitability of the UK's finance sector rests in part on a failure to pass on the benefits of its rising productivity to the rest of the domestic economy.** Despite huge advances in information technologies and analytical capacity, the unit cost of intermediation to the non-financial economy was higher in 2007 than it was in the 1950s.
 - **The UK has a lower rate of investment than our major competitors, and less than is required to move to a higher productivity, higher wage economy.** After adjusting for the composition of industry across countries, the UK spends around 2 per cent of GVA on research and development (R&D), compared with 3 per cent in France and the US, and closer to 4 per cent in Japan and Finland.
 - **Financial markets influence both the demand for and the supply of investment.** On the supply side, they provide access to credit and capital. They also affect business demand for investment by intermediating the ownership of companies through share dealing.
 - **By not passing on the lower costs from productivity gains, financial markets are not supporting the rest of the economy as they should.** The unit cost of intermediating capital for the UK's non-financial economy rose by a third between 1950 and 2007.
- 2. Raising SME investment requires shifting the focus of bank lending to small, high-growth firms, and the development of new specialist banks.** UK banks are overly focused on real estate, leaving a gap in the supply of finance needed to improve productivity and growth in the economy.
 - **Although the supply of finance to SMEs has improved in aggregate since 2014, net lending to small businesses – those with less than 50 employees – has been negative in all but one quarter over the last five years.** There appears to be a significant finance gap for small, high-growth businesses, which are particularly important to shift the UK to a higher wage, higher productivity economy.
 - **The UK banking industry has an over reliance on traditional property collateral, and invests disproportionately in real estate and financial assets.** The ratio of real estate lending to business lending among UK banks is three times the average across the Eurozone.
 - **The Bank of England should raise the relative cost of lending to real estate within its funding schemes, while the Government should look at**

supporting the private sector to use intellectual property as collateral.

Continuing to rely on horizontal interventions alone, such as the Funding for Lending Scheme, will not ensure finance reaches all the places it is most needed to upgrade the economy.

- **The Government should capitalise new specialist banks to provide lending to key sectors and regions.** By focusing on specific industries, technologies or geographic regions, specialist and public investment banks (such as the Green Investment Bank, or Germany's KfW) are able to develop expertise and thereby 'crowd-in' private investment.

3. Promoting longer-term corporate investment requires a stronger alignment of the incentives of companies with the savers who ultimately own their shares. By reforming executive pay, extending fiduciary duty to intermediary institutions such as fund managers and brokers, and ending exemptions for Stamp Duty Reserve Tax, the incentives for excessive short-termism in equity markets can be reduced.

- **Trading in shares is largely rewarded on the basis of relative performance, not long-term value creation, with high frequency trading adding negligible value to the economy.** Hedge funds, high frequency traders and proprietary traders now make up 72 per cent of equity market turnover in the UK.
- **Short-term pressures in equity markets are passed through to company board rooms, leading to an excessive focus on share prices and short-term returns to shareholders.** A survey of more than 400 executives found that 75 per cent would sacrifice positive economic outcomes if it helped smooth short-term earnings.
- **Extending the legal fiduciary duty of pension fund trustees to asset managers and brokers would help align the incentives between companies and the savers who ultimately own their shares.** A new Responsible Ownership Commission should be established to apply the principle and support disclosure and compliance.
- **Hedge funds and other market makers should no longer be exempted from Stamp Duty Reserve Tax, in order to reduce the incentives for short-term trading.** The revenues generated could be used to create new reliefs in Corporation Tax and Capital Gains Tax to increase incentives for longer-term ownership of shares.

Introduction

Superficially at least, there appears to be a paradox at the heart of the UK economy. Despite privileged proximity to one of the largest finance sectors in the world, UK firms invest less as a proportion of GDP than most of our competitors.

Upon further inspection, however, this paradox is only skin deep. The UK's largest firms have been net savers in the economy for a number of years. In aggregate they have more than enough cash from retained income to fund present levels of investment. Meanwhile banks and other intermediaries make huge profits from trading instruments and assets with one another and the rest of the world, not just from investing in the UK's non-financial economy. It is little surprise, then, that the size and success of UK financial firms bears little relation to the investment performance of the rest of the economy.

Nevertheless, the uncomfortable juxtaposition of low investment levels and a highly profitable finance sector does raise serious questions about how well the finance sector is serving the British economy. It is possible to think of finance as a sector with two interrelated purposes. The first is to generate jobs, profits and tax receipts particularly by exporting services to the rest of the world, innovating in and diversifying risk management, while helping to uncover the market price of debt and credit. The second is to safeguard the savings of UK-based investors, intermediating the ownership of UK companies in the interests of the wider economy and ensuring that companies wanting to invest get the finance they need.

Since the financial crisis, understanding the way in which finance markets can shape the rest of the economy has gained new salience among policy makers and experts. On the regulatory side, the Coalition Government brought in a suite of reforms with the 2013 Banking Reform Act – though they did not go as far as the post-crisis Commission on Banking had recommended. Among other things, the Act obliged banks to separate their investment banking activities from retail services provided to individuals and small businesses. It also created the new Prudential Regulation Authority to oversee banks' behaviour under the new rules.

The Bank of England has also taken additional measures to intervene directly in the incentives of financial markets in an attempt to improve their contribution to the real economy. From 2009, Quantitative Easing has been intended to free up cash for institutional investors to push money towards non-financial firms, while the Funding for Lending Scheme has provided incentives for banks to lend more to small and medium sized businesses. Most recently, the Term Funding Scheme provided additional funding for private banks on terms close to the Bank of England's overnight base rate.

Taken together, the primary focus of public interventions during the last two parliaments has been to improve the safety (on the regulatory side) and the volume (on the incentives side) of investment. The latter has seen some modest successes, while the former remains untested. Very little effort, however, has been paid to improving the *quality* of finance for business, and especially to how markets can shape its demand, as well as supply.

It has long been argued that finance markets have disproportionately short-term horizons. Survey evidence from the 1960s suggested that investment funds would typically expect a full pay-back on an investment within five years, despite the average effective life of industrial hardware at the time being at least 15 to 30

years (Neild 1964). Yet further empirical evidence on excessive short-termism in the following decades was drowned out by the prevailing dominance of the ‘efficient market hypothesis’: the idea that stock market prices always perfectly reflect the true value of assets (Fama 1970). Rational investment decisions, therefore, would always deliver an optimal return for the economy in the long term.

More recently, empirical studies have consistently shown that short-termism is a serious and demonstrable problem. Stock markets, particularly in the UK and the US, appear to be consistently applying a disproportionately high discount to longer-term investment – well in excess of that implied by their true value to the economy (Haldane and Davies 2011, Kay 2012). This pushes capital flows towards shorter-term investments, with significant opportunity cost to society and the economy.

In response to this new body of evidence, the Prime Minister, Theresa May, announced in November 2016 the launch of a Patient Capital Review, to be led by the Treasury and advised by an industrial panel led by Sir Damon Buffini (HMT 2016). It will focus specifically on investment in start-up and scale-up companies. Concurrently, the Bank of England has been exploring this area with new research and surveys looking to understand the extent of productive investment in the UK. The Bank’s work adds to a significant academic literature since the financial crisis, looking at the role of the financial sector and how it can be reformed to better serve the rest of the economy. Notable examples include work by Adair Turner (2010) and John Kay (2015).

Although welcome, these recent policy interventions mark just the beginning of the work that needs to be done to ensure the UK’s finance sector provides maximum value for society. The internationally unusual size of the finance sector in the UK comes with a mixture of opportunity and risk. Its profitability attracts investment and talent from overseas. By contributing to the rise in prices of real estate and other assets our financial system also helps firms with access to collateral leverage credit, while its sheer size can help to mitigate and spread risk, making possible more productive and innovative ventures. However, the profitability of finance can also divert investment away from the real economy, where opportunities may be less attractive by comparison, especially if they are long-term in nature. The generation of asset bubbles accentuates this problem, while also presenting systemic risks for the economy as a whole. Meanwhile large inflows of overseas spending on financial services may help to keep the value of Sterling artificially high, which in turn makes UK exports less competitive and less attractive as an investment opportunity.

This discussion paper is focused on the relationship between the finance sector and business investment. It covers the role of finance in providing both capital and stewardship for businesses seeking to generate long-term economic value. It does not cover questions around systemic risk, interest rates, consumer banking or exchange rates, which will be examined as part of the Commission on Economic Justice’s separate work on UK monetary policy. Questions around the role of finance in the distribution of power and wealth more widely will also be considered separately by the Commission.

The Commission’s deliberations have been assisted by submissions received in response to our call for evidence, and consultation with experts and stakeholders in the field. Our research has led us to three key propositions, which we put forward for debate:

- 1. The profitability of the UK's finance sector rests in part on a failure to pass on the benefits of its rising productivity to the rest of the domestic economy.** Despite huge advances in information technologies and analytical capacity, the unit cost of intermediation to the non-financial economy is higher now than it was in the 1950s
- 2. Raising SME investment requires shifting the focus of bank lending to small, high-growth firms, and the development of new specialist banks.** UK banks are overly focused on real estate, leaving a gap in the supply of finance needed to improve productivity and growth in the economy
- 3. Promoting longer-term corporate investment requires a stronger alignment of the incentives of companies with the savers who ultimately own their shares.** By reforming executive pay, extending fiduciary duty to intermediary institutions such as fund managers and brokers, and ending exemptions for Stamp Duty Reserve Tax, the incentives for excessive short-termism in equity markets can be reduced.

The evidence and arguments for these propositions are gathered together in the following chapters. In each case we set out the direction we believe that policy should take to address the problems we have identified. We welcome responses.

1.

The profitability of the UK's finance sector rests in part on a failure to pass on the benefits of its rising productivity to the rest of the domestic economy

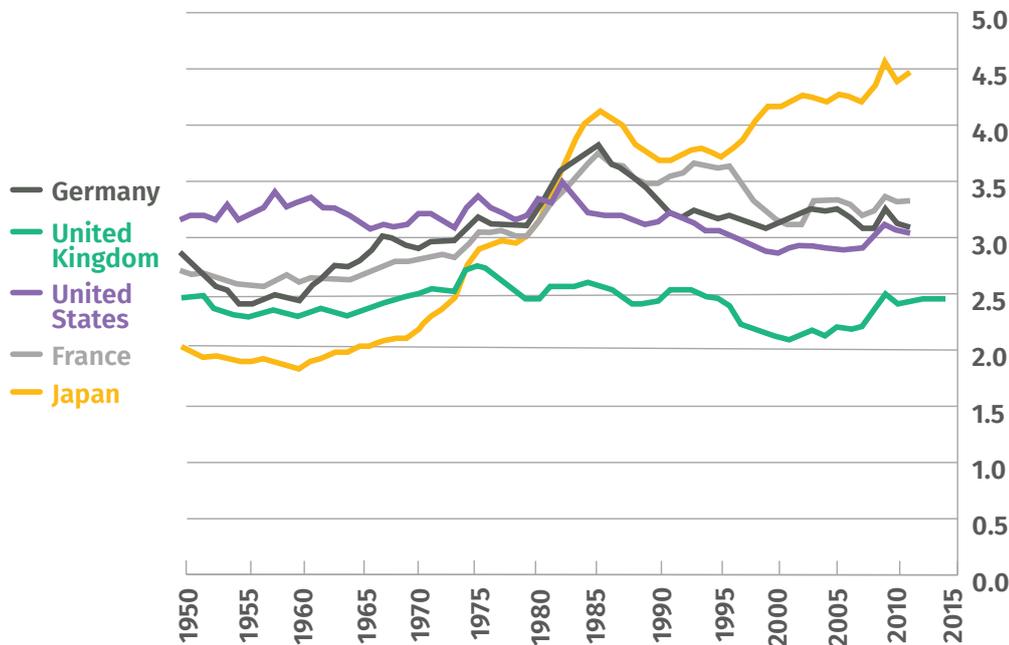
DOES THE UK HAVE AN INVESTMENT PROBLEM?

Economic output is dependent upon investment, yet the UK has significantly lower investment relative to comparable advanced nations. Business spending on replacing or expanding capital in the UK is worth around 17 per cent of gross value added (GVA), compared with around 20 per cent in Germany and 22 per cent on average across the Eurozone (World Bank 2016). Over time this has left the stock of capital in the UK economy far lower – both when measured as a ratio to GDP or per worker – than the most successful advanced economies (see figures 1 and 2).

FIGURE 1

Over time the stock of capital in the UK relative to GDP has fallen well behind that of comparable advanced economies

Ratio of total economy capital stock at replacement prices over GDP, 1950 to 2014

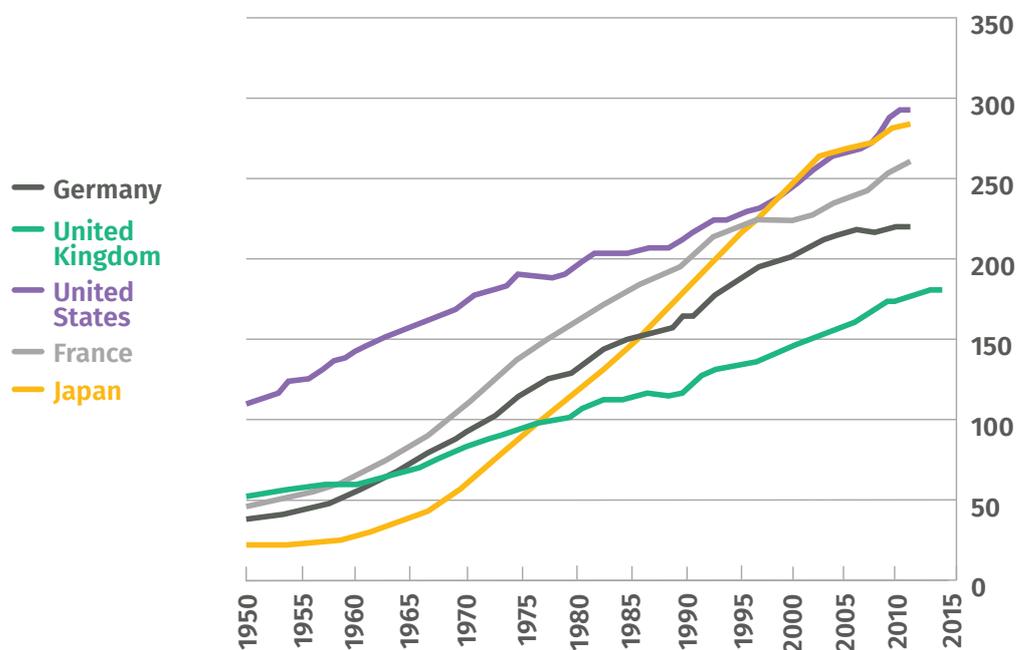


Source: Adapted from Bank of England 2016

FIGURE 2

Over time the stock of capital in the UK relative to the workforce has fallen well behind that of comparable advanced economies

Ratio of total economy capital stock at replacement prices over workforce, 1950 to 2014



Source: Adapted from Bank of England 2016

There are two possible explanations for low investment in the UK: either demand for investment is low; or the supply of credit for investment is sub-optimal. Both could be true.

The UK non-financial economy is certainly structurally different from many of its competitors in a way that affects demand for finance and investment. Since the 1970s the UK has moved away from more capital-intensive, higher paid industries towards more labour-intensive, lower paid services. While some movement of this kind has occurred in all advanced economies, the shift has been much more stark and dramatic in the UK than in many other countries (Jacobs et al 2016). Manufacturing in the UK now makes up just 10 per cent of the economy's total GVA, compared with 23 per cent in Germany and 12 per cent in the US (OECD 2016). Recent GDP growth and record levels of employment in the UK have coincided with a stalling of productivity growth since the financial crisis that is almost without precedent, both in terms of UK history and by international comparison. This has in turn contributed to the slowest recovery in real wages of almost any country in the OECD since 2007 (IPPR analysis of OECD 2017). This would suggest that the UK economy is in some form of 'low-wage equilibrium' (Hyun Soo 2014). In aggregate, companies are maintaining high growth and output, not by adding to their stock of capital (whether tangible or intangible), but by adding to their workforce with cheap labour.

The recent rise in self-employment in the UK – from around 12 per cent in 2001 to just under 15 per cent in 2016 – is symptomatic of this trend. Many of the self-employed might be described as the 'disguised unemployed' – the phenomena of people working in activities where their productivity is lower than it might otherwise be were effective demand to be higher (Eatwell 1997).

The fact that the UK has a relatively low rate of investment because it has a relatively labour-intensive low-wage economy, however, is not a good argument in favour of maintaining this. It is now widely recognised that the stagnation of wages in the UK requires a determined effort to raise aggregate productivity, and that this requires greater capital investment (Haldane 2017, LSE Growth Commission 2017). So even if the UK's financial sector were delivering an optimal supply of finance for the present low-investment economy, the question would remain: is the finance sector fit for purpose to support an increase in investment to drive the UK towards a new model of higher productivity and increased wages and living standards?¹

A key issue is whether UK finance is contributing to sufficient long-term investment. There is no single measure of long-term investment, but a useful proxy is expenditure on research and development (R&D). Among the most advanced nations in the OECD, the UK has one of the lowest rates of R&D spending, even after accounting for the dominance of service sectors in the UK economy. After adjusting for the composition of industry across countries, the UK spends around 2 per cent of GVA on R&D. This compares with 3 per cent in France and the US, and closer to 4 per cent in Japan and Finland (see figure 3). Business spending on R&D is also likely to be understated in countries such as the US and Germany, where the private sector benefits significantly from integrated state spending on similar activities (Mazzucato 2016).

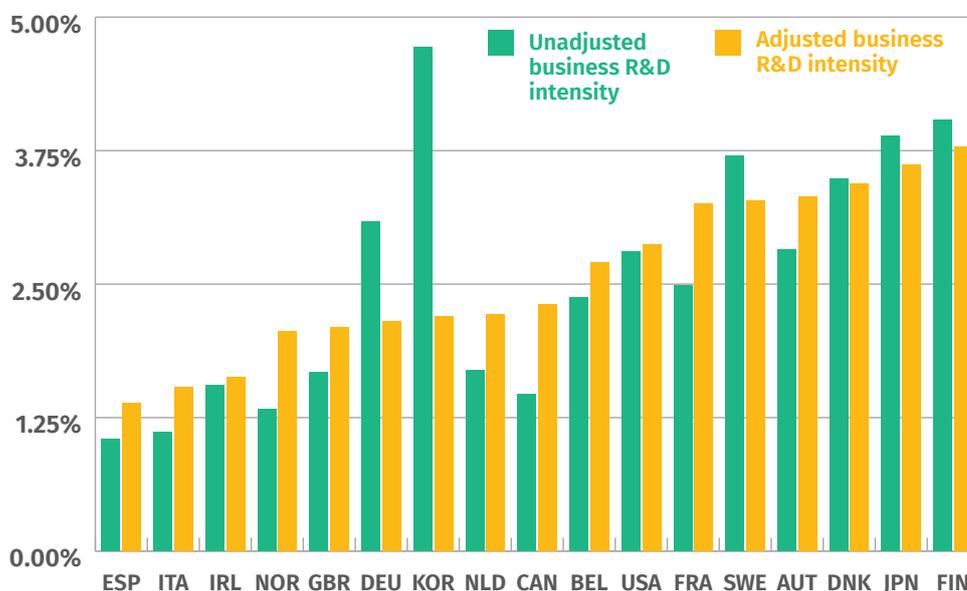
Low R&D spending is unlikely to be primarily driven by a shortage in the supply of finance, since much of R&D is internally financed. There are then two possible demand side explanations: either there are not enough opportunities for long-term investment, or else the time horizons over which businesses require a return on their investment are too short. Given that R&D spending is lower in the UK even after accounting for the structure of the economy, it is difficult to explain low R&D spending solely on account of reduced commercial opportunity. This would suggest that at least some of the problem lies in the interaction of UK corporate governance with UK finance markets (Lazonick 2014, Lawrence 2017).

1 We do not suppose that this question need only be asked of finance. The structure of finance markets can only be one part of the problem to low investment. The Commission is also exploring the equally important, if not more important, issues on the demand side to investment as part of our work on corporate governance, industrial strategy and macroeconomic policy.

FIGURE 3

UK spending on R&D is well below many comparable economies

Business spending on R&D as a percentage of GVA, adjusted and unadjusted for sector composition (selected countries, 2011 and 2012)



NB: Figures are based on estimates of business R&D by fourth digit industrial sectors. Data refers to 2011 for Austria, Belgium, Canada, Greece, Ireland, Mexico and Portugal. Data refers to 2012 for Denmark, France, Germany, Hungary, Italy, the UK and the US.

Source: OECD 2013

ARE FINANCE MARKETS SERVING THE REST OF THE ECONOMY?

In many ways, the UK finance sector is world beating. In terms of size, exports, employment and profits, our financial system is among the most successful in the world. The unconsolidated assets owned by UK-based financial firms are worth 12 times more than annual GDP (Burrows and Low 2015). The sector accounts for 7.2 per cent of all UK economic output (ONS 2017a) and employs (on well-above-average earnings) more than 1.2 million people, or around 3.8 per cent of all employees (ONS 2017b). Financial services are also responsible for a trade surplus worth 2 per cent of GDP – more than all other sectors with a net surplus combined (The City UK 2016). There are certainly questions over the continued price of this success in terms of global and domestic systemic risk. But though not yet fully tested, progress has been made in macro prudential regulation since the financial crisis, with the new Basel III Accords – which aim to improve bank safety through improved capital buffers – set to be fully implemented by 2018. There remain outstanding concerns that UK banks are not as well capitalised as US banks, but in general it appears that the first purpose of finance as set out in the previous chapter – to provide jobs, profits and exports to the UK economy – is being well served.

But at least part of the second purpose – to provide finance for investment and to intermediate ownership for the UK economy – would appear to be more problematic. One of the most striking findings of recent research into the financial sector is that the ‘unit cost of intermediation’² – the cost the sector

² Defined as the ratio between the value of loans to the non-financial economy as a proportion of GDP and the GVA of the finance sector as a proportion of GDP see Philippon (2014) and Bazot (2014) for more information, and explanation of adjustments and modelling.

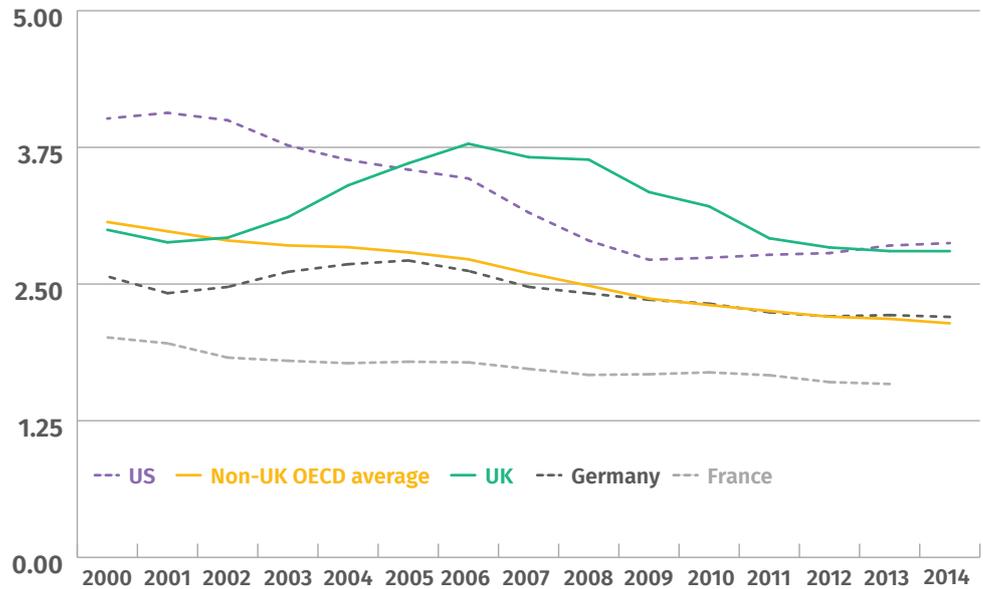
effectively charges the rest of the economy for its services – has remained more or less constant over the last 60 years. This is despite almost immeasurable advances in information technologies and analytical capacity over this period, including computer chips, the internet, mobile telephony, broadband and data analytics (Philippon 2014). A truly competitive market would have ensured that the institutions involved in financial intermediation passed on some proportion of the productivity gain from these technological advances through lower costs to savers and companies. But what we actually see is that the cost of financial intermediation in 2007 was a third higher than it was in 1950 – in other words, in aggregate the market has failed to pass on these productivity gains to anyone outside of the sector itself. This is true both for the US (Ibid) and for the UK, Germany and France (Bazot 2014).

New IPPR analysis has sought to provide an update to these findings for a broader panel of developed countries. Our analysis shows that in aggregate, UK finance is behaving particularly strangely. Borrowing from the novel metric pioneered by Philippon (2014), we estimate the unit cost of financial intermediation by calculating the ratio between the value of loans to the non-financial economy as a proportion of GDP, and the gross value added of finance and insurance as a proportion of all gross value added in the economy. Figure 4 plots this ratio as a three-year rolling average. Outside the UK, the OECD average has seen a persistent decline in the unit cost of financial intermediation. Between 2000 and 2014 the cost of intermediating finance across the OECD fell by a third. The fall in cost was on a similar scale in Germany and France, and a little larger in the US.³ Yet in the UK, average costs in 2014 were almost identical to those in 2000. Furthermore, in the UK the costs rose uniquely during the run-up to the financial crisis. This suggests that UK finance firms were especially unusual in not passing on any of the benefits of their large profits to the rest of the economy in the form of improved efficiency over this period.

3 These results are not directly comparable to those of Philippon (2014) and Bazot (2014) since the latter two adjust their unit costs to take account of changes in the composition of firms across time.

FIGURE 4

The unit cost of financial intermediation in the UK has barely fallen compared with 2000
Ratio between the value of loans to the non-financial economy as a proportion of GDP, and the GVA of finance and insurance as a proportion of all GVA, selected countries, 2000-2014



NB: OECD average includes selected advanced OECD countries⁴

Source: IPPR analysis of data from the Bank of International Settlement (2017) and OECD (2017)

Although a persistently high unit cost of financial intermediation over time does not on its own prove a lack of financial efficiency, it should surely provoke concern. While the analysis above does not account for structural economic differences across countries and across time, the detailed modelling by Philippon and Bazot has shown that the cost of financial intermediation has remained high, even after controlling for the types of economy to which they are lending. This included controlling for variations in the nature and composition of firms and industries across time and, therefore, the differing levels of financial risk as the structure of the economy has changed through the decades. Unlike other global industries that remained commercially viable over the same period, the finance sector has not improved the value for money of the services it provides to the non-financial economy (Philippon 2014).

One possible explanation for consistently high unit costs might relate to the (lack of) competitiveness of finance markets. But as Bazot has shown, in the UK, unit costs rose in both the 1980s and 2000s at a time of deregulation and financial innovation when greater competition should have led costs to fall (Bazot 2014). Commenting on a similar phenomenon in the US, Philippon shows that lack of competition is not the likely cause of persistently high unit cost: periods which saw a rise in price coincided more closely with periods characterised by fewer barriers to entry, rather than more (Philippon 2014).

Another possible explanation is that the quality of finance is improving across time in a way that is not reflected in the structure of the economy or

⁴ This includes Austria, Australia, Belgium, Denmark, Finland, France Germany, Greece, Hungary, Ireland, Italy, Japan, Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden and the US.

the size of assets. A candidate for such a phenomenon could be improved information harvesting and dissemination, improving the quality, if not the size, of intermediated assets over time (all else being equal) and therefore contributing to a persistently high unit cost. For example, the rise in unit cost during the first half of the 2000s coincided with innovations in ‘originate to distribute’ finance and the reestablishment of UK finance as a major international service (Bazot 2014). But since these practices were heavily implicated in the spread of contagion during the 2007 crisis, the extent to which the rest of the economy was benefiting for an improved service was, in this case, highly questionable at best.

At the very least, persistently high unit costs – which are common across a number of countries but have shown a particularly unusual profile in the UK over recent years – warrants a closer examination of the role of the finance sector in supporting investment. This would be true even if policy makers wanted to maintain the efficiency of the UK economic model in terms of its present low-wage configuration. However, it becomes an imperative if future governments want to move the UK to a higher productivity, higher wage economy in the future.

There are two possible mechanisms through which business finance markets may be part of UK’s investment problem, affecting both the supply and demand for investment and long-term value creation:

1. business finance markets may be systematically failing to provide the necessary capital for firms that would otherwise be able to make commercially viable investments
2. business finance markets are affecting the demand for investment by instilling the wrong priorities on corporate decision-making through their intermediation of company ownership.

Our review of the existing evidence, along with new IPPR analysis, suggests that both of these mechanisms are present. Our arguments and evidence are set out in the following two chapters.

2.

Boosting SME investment further requires shifting the focus of bank lending to small, high-growth firms, and the development of new specialist banks

Following the crisis, external financing for businesses fell significantly, with net lending turning negative for six consecutive years (BBAa 2017). The depth and extent of the deleveraging in the wake of the crisis reflected not just the contraction of economic output, but a severe supply side credit crunch, with lenders unwilling to fund all but the safest investments. Bank balance sheets were rapidly cut back and the market in securitised business loans was largely wound down (Wehinger 2012).

Although lending throughout the economy contracted during the post-crash period, small and medium firms were disproportionately affected. Larger firms (defined as those having more than 250 employees) typically have access to a broader range of funding sources, such as the syndicated loan market and public bond markets or public equity markets, as well as their own retained earnings. By early 2013, credit conditions for these large firms had improved substantially (Deloitte 2014). But a significant finance gap (the difference between funding required and the finance offered) – of between £10 and £11 billion in 2013 – remained for small and medium sized enterprises or SMEs (NAO 2013).

In response to this supply side gap, the Bank of England's Funding for Lending Scheme narrowed its focus exclusively to SMEs in 2014. Similarly, the Enterprise Finance Guarantee scheme was introduced to give banks a government guarantee on their loans to SMEs. At the same time, the Coalition Government launched the British Business Bank (BBB) to increase the supply of finance to smaller firms less able to get credit. The BBB has tried to reduce the risk of investing in SMEs, by providing loss guarantees or matching funding for both loan providers and private equity investors. The BBB is particularly focused on expanding the array of financing options available to SMEs, as part of a wider government effort to increase access to alternative forms of finance beyond traditional bank loans. For example, the Enterprise Investment Scheme and the Seed Enterprise Investment Scheme provide equity investors with tax reliefs on their investments (Hatfield 2017).

Since these interventions, there are some signs that the finance gap for SMEs as a whole has closed. Recent survey evidence suggests credit conditions have improved, driven both by general economic recovery as well as government intervention (Saleheen and Levina 2017). Net lending to SMEs stopped falling in 2014, and has grown in every quarter since, totalling £1.5 billion in 2016 (BBAa 2017). Furthermore, alternative sources of financing, including private equity, asset finance and peer-to-peer lending have also been on a steady upward trend in the last few years (BBB 2017).

IS THERE STILL A FINANCE GAP?

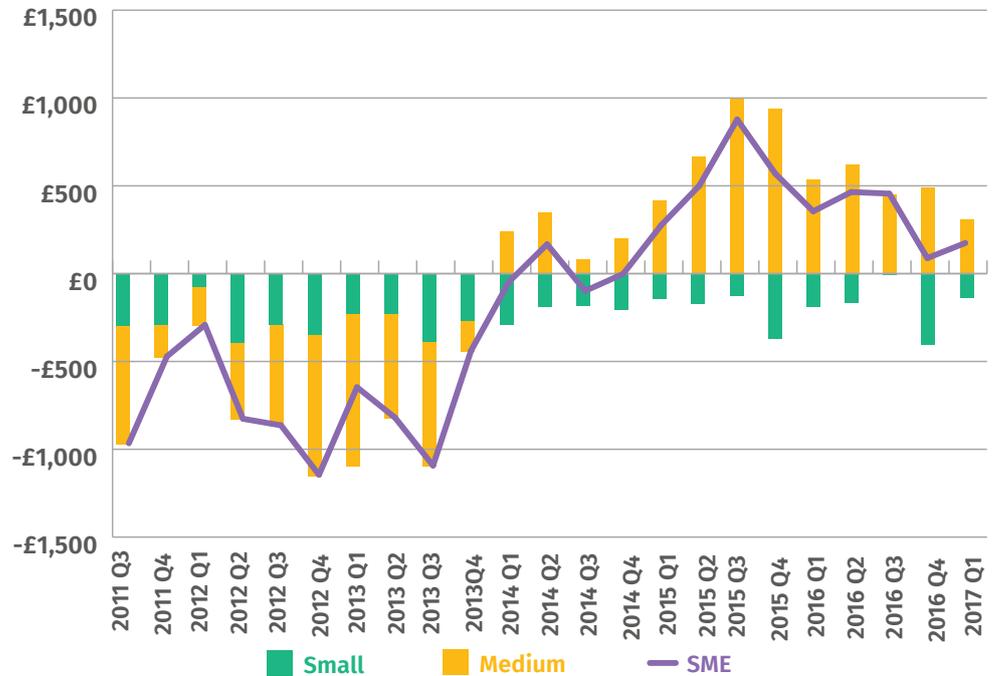
Nonetheless, at a disaggregated level, there remain concerns that the allocation of finance in the UK may not be optimal. Prompted by the finance and investment environment since the financial crisis, the Bank of England is seeking to understand the extent to which the supply of finance is failing to support productive investment. A first report in the summer of 2016 described a mixed picture, with the main conclusions being that the UK lacked sufficient data (Bank of England 2016). But their disaggregated analysis of rates of return data in particular did find evidence consistent with a continuing finance gap. All else being equal, if finance markets are working properly, the supply of credit would be expected to flow to the greatest opportunities for a high return. Over time, this would mean that high rates of return tend to revert back to the average. Conversely, persistently higher rates of return over time in some areas may suggest something is wrong. Modeling by the Bank of England using data from 1996 to 2012 found that on average across the period lending to small firms had a 3 per cent higher rate of return on capital compared to large firms, a result that was robust even after controlling for industrial sector, internal funding and collateral (*ibid*). Younger firms also had a statistically significant higher rate of return on capital compared with mature companies.

On their own, the higher rates of return found by the Bank of England could simply reflect a risk premium for small businesses, or else methodological issues in measuring the stock of assets. The argument that the supply of finance may be part of the problem, however, is supported by collaborative academic research by analysts at the Centre for Macroeconomics, the Bank of England and the Institute for Fiscal Studies (IFS). Econometric evidence from data going back to 1970 found that the relationship between the degree of dispersion in rates of return, both across and within sectors, and the flow of capital resources towards higher rates, had changed since 2008, with finance becoming much less responsive to new opportunities (Barnett et al 2014). The authors concluded that frictions in the financial system were likely to have contributed to the collapse in UK productivity growth since 2007. This is further supported by additional internal research at the Bank of England which showed that contractions in the supply of credit had a large impact on investment, productivity and wages, even after controlling for consumption in the economy (Franklin et al 2015).

A closer look at SME loans also reveals that the recovery in aggregate net lending appears to have been driven entirely by net lending to medium-sized firms only (see figure 5). Net lending to small businesses, those with less than 50 employees, has been negative in all but one quarter over the last five years. This means that new lending to small firms has been insufficient even to maintain the level of outstanding credit to small firms, let alone expand upon it as might be expected during an economic recovery. Small businesses are still 10 per cent less likely to have their application approved than medium-sized businesses (BBAa 2017), and they are also most likely to cite the cost of external finance as a major obstacle to investment (Saleheen and Levina 2017). The success rate for loan applications does not appear to have changed much since 2012 but demand for loans from small companies fell by 25 per cent between 2012 and 2015 (IPPR calculations using BBAa 2017).

FIGURE 5

Net lending to small business within SME has still not recovered and continues to fall
Net lending (£ million) to small, medium and all SMEs, Q3 2011–Q1 2017



Note: The BBA defines small firms as those with 0-50 employees and medium-sized firms as 50-250 employees

Source: BBA 2017

There is particular evidence of a finance gap among the fastest-growing small firms. High-growth start-ups are key drivers of economic expansion and account for a disproportionate amount of job creation (Haltiwanger et al 2013). Yet recent analysis by the British Business Bank found that the supply of growth loans (up to a value of £2 million), specifically for small fast-growing companies, fell short of demand by between £170 and £870 million in 2014. The authors argued that the gap would be significantly larger if loans between £2 and £5 million were accounted for as well. This is especially concerning given that the UK already sits behind other comparable economies in the success rate of such companies. Despite having a relatively large number of start-ups, the UK was the second worst performer (out of a panel of 14 OECD countries) for the percentage of micro firms who grow to over 20 employees in three years (for example 3 per cent in the UK, compared to 6 per cent in the US) (BBB 2017).

Given the current crisis in productivity and wages – and the political consensus on the need to tackle this – ensuring that business finance meets current levels of investment demand should be just the minimum requirement for policy makers. The real question is not whether business finance is sufficient to support current needs, but whether it is capable of supporting and driving an improvement in productivity through higher capital investment in the economy. It is certainly true that we need better quality data to understand the direction of causation between demand and supply. But the evidence of continuing frictions in the supply of finance – even for the UK’s current low-wage, low-productivity economy – should be a serious cause for concern.

THE PROBLEM OF REAL ESTATE

Due to its role in money creation and the safeguarding of savings for retail customers, the mainstream banking industry, on average and in aggregate, is made up of highly collateralised lenders. This has been further emphasised since the financial crisis, with the international Basel III Accords tightening safety requirements, expanding capital buffers and precluding large volumes of unsecured lending that had previously been tolerated – all of which have limited the activities by banks in originating loans for SMEs (Angelkort and Stuwe 2011).

Nonetheless, bank lending in the UK is particularly focused away from non-financial businesses by international standards. Loans to UK businesses account for 5 per cent of total UK bank assets, compared to 11 per cent in France, 12 per cent in Germany and 14 per cent on average across the rest of the Eurozone (European Central Bank 2017). Bank lending to the non-financial economy in the UK is also disproportionately dominated by real estate. As figure 6 shows, the ratio of real estate lending to business loans is notably lower in the UK than in the Eurozone. Real-estate loans to business and individuals account for over 78 per cent of all loans to non-financial UK residents. After stripping out real estate, loans to UK business account for just 3 per cent of all banking assets (Bank of England 2017).⁵

FIGURE 6

The ratio of real estate lending to business loans is significantly lower in the UK compared with the Eurozone

Mortgage and business loans as a proportion of all banking assets, UK and Euro area



Source: European Central Bank 2017

The disproportionate focus of UK financial institutions on real estate bodes poorly for expanding productive investment among smaller firms. The bulk of real estate

⁵ These calculations consider only loans made to UK residents in Sterling. Loans in foreign currency to UK resident are excluded since we are primarily interested in loans that are most likely to contribute directly to investment in the UK.

loans and mortgages do not increase the productive capacity of the economy nor contribute to GDP growth or higher wages; instead their primary effect is to drive up asset prices (Werner 1997). The reliance on collateralised lending in mainstream banking is also consistent with the evidence of a finance gap for small, fast-growing business discussed above. More importantly, it suggests the banking industry is poorly positioned to boost UK productivity growth beyond its present low rate by helping such firms increase their capital base.

The evidence suggests that firms that are unable to access collateralised lending, but would otherwise represent viable investments, are likely to be systemically underfinanced by banks. In a recent Bank of England survey, nearly 25 per cent of SMEs said they were constrained in their borrowing by the need to provide collateral (Saleheen and Levina 2017). Furthermore, not only is more than two-thirds of lending to small and mid-sized corporations⁶ secured on property, but a third of total lending also comes with a personal guarantee, with a claim against personal residential property (Bahaj et al 2016). While firms regularly use their own real estate assets to secure investments, recent Bank research has highlighted that the *residential* real estate assets of firm *owners* are also a key source of investment collateral). Bahaj et al estimate that a 10 per cent increase in directors' house prices boosts firm investment by 0.2 per cent, while for corporate real estate, investment increases by 0.9 per cent.⁷ This explains the strong positive correlation between house prices and business investment: the role of collateral make investment effectively dependent on stable or growing real estate prices.

Allowing the rate of small business finance to be determined by the availability of real estate collateral is particularly concerning given the recent trajectory in intangible investment. As the economy becomes increasingly reliant on service sectors, the profit return on labour will become increasingly contingent on less tangible assets such as skills, management models and computerised information. Technological advances have seen intangible investment become larger than tangible investment every year since the early 2000s (Goodridge et al 2016). In 2014, investment in intangibles was worth £133 billion – made up of spending on training, organisational systems, design, software, branding – compared with £121 billion for tangibles (Ibid). However, intangible assets are notoriously difficult to measure, and they are therefore rarely conceived as a possible source of collateral.

Some of the market in non-collateralised financing of small and growing firms is currently met by venture capital and private equity investors. While only 6 per cent of all SMEs consider equity funding, 12 per cent of start-ups do (Ipsos MORI 2017). The recent growth in alternative finance markets such as private equity, peer-to-peer lending and crowdsourcing is encouraging and positive. These types of funding have gained a foothold in areas of the market not reached by banks by providing capital to riskier projects. Successful providers of risk capital are able to take on these projects by utilising specialist expertise in the firms and sectors in which they invest, making up for a lack of collateral through a more sophisticated assessment of the risks and opportunities, as well as by charging a higher risk premium. However, this area of the market is recovering no faster than general bank loans to SMEs and, like bank loans, private equity is disproportionately focused on medium-sized firms, as opposed to small ones. Gross flows of alternative and equity finance have remained consistently at around 35 per cent of gross bank loans since 2011 (IPPR calculations using BBB 2017) This suggests that equity finance will not be able to grow sufficiently to

6 Defined here as firms with turnover of less than £500 million

7 Though the residential real-estate price effect is smaller, it should be noted that the UK median firm has corporate collateral only worth 6 per cent of turnover. By contrast, the directors of the median firm have residential property which between them is worth around 20% of annual turnover.

meet the level of demand for financing not backed up by traditional collateral which is required in a higher investment UK economy.

At present, two structural weaknesses appear to prohibit the growth potential of alternative finance. First, private equity can be prohibitively expensive,⁸ while also requiring a loss of control for business owners. Second, whereas bank lending to SMEs is distributed reasonably proportionately to the distribution of SME firms across the country, alternative finance is skewed heavily towards London-based companies. London-based firms account for just over 20 per cent of all high-growth firms across the country, yet they receive almost 50 per cent of equity investments and more than 60 per cent of all venture capitalist investments (Hatfield 2017).

POLICY PROPOSALS

The available evidence suggests that there are still problems in the supply of finance across firms, particularly small high-growth businesses. A lack of financing for these firms is particularly worrying since they are a principal vehicle through which the UK economy needs to transition from its low-capital, low-wage equilibrium to a higher-capital, high-wage one. Our analysis suggests that this is, in part, an opportunity cost problem. Because banks can focus on intra-financial sector activities, and on real-estate, they are unlikely to devote the resources necessary to understand and evaluate the uncertain and specialised investment opportunities that high-growth firms tend to pursue.

To address this, there is a strong case that policy-makers need to adopt a new approach to banking incentives. Rather than seeking to increase aggregate levels of funding through horizontal interventions such as the funding for lending scheme that make all business lending more attractive, government needs to shift the balance of incentives for different banking assets. Based on both the UK experience and that of other countries, there are at least three ways to do this.

1. Boost alternative finance markets, especially outside London and the Southeast.
2. Rebalance incentives for bank lending to small business by creating a market in non-tangible collateral and raising the risk premium for real estate.
3. Create new specialised investing institutions that are restricted by their governance mandate to invest only in tightly defined markets.

The first of these options is already being pursued by government through the British Business Bank and it would appear to be having some success. IPPR has previously recommended that the BBB should address the geographic imbalances in alternative financing by making geographic dispersion and diversity a more explicit part of the institutions mandate (ibid). This is a proposal that we reiterate here.

On the second of these options, we propose that the Government and the Bank of England examine two complementary policy initiatives: supporting the private sector to use intellectual property (IP) as collateral in lending markets; and increasing the relative costs of real-estate loans. A number of countries, such as Malaysia, Brazil and Singapore have sought to develop IP-backed lending schemes (Brassell and King 2013). Even in the UK, private investors increasingly look at IP to evaluate businesses. However, a more expansive use of IP as a form of collateral is currently inhibited by a lack of public information (ibid). As such, a clear inventory of the IP and intangibles held by firms could help lenders better assess the value of these assets and the extent to which they could be used as collateral. As it is

⁸ The actual cost of private equity will vary depending on the equity share of investors and the profitability of the firm (the more profit a firm makes, the more valuable the equity and the more expensive the original investment).

already focused on improving information flows between businesses and lenders, the BBB could play a major role in developing such a registry. It could develop a toolkit to help lenders assess the value of intangibles, and more directly it could require, whenever private lenders make use of its schemes, that IP and intangibles be identified and valued in the financing process.

Separate measures could also be taken to increase the relative costs of real estate lending. The Bank of England's Funding for Lending Scheme (FLS) and the Term Funding Scheme (TFS) both give private banks access to cheap funds on the condition that the savings are passed on to the non-financial economy. The FLS scheme allowed private banks to swap assets for Treasury Bills, which could in turn be used to borrow cash at low rates on wholesale debt markets. The Bank has gradually adjusted the terms of the FLS in response to the external credit environment, for example excluding mortgage lending from the benefits of the scheme in January 2014 in order to improve incentives for SME lending. The Term Funding Scheme was announced in August 2016 to help ensure the benefits of a lower interest rate were passed on to the rest of the economy, by allowing banks to swap assets for central bank reserves. We propose that the Bank of England adjusts the terms and conditions of either or both of these schemes, or examines the case for a new scheme, to increase the cost of funds for real estate loans and to reduce costs for lending specifically to small firms within SMEs.

SPECIALISED BANKS

There is also a strong case for institutional innovation in business finance markets: in particular, for the creation of specialist banks or state investment funds that are restricted to investing either in certain sectors or in certain regions of the country.

There is growing evidence that, in countries which have them, public banks have proved better suited to provide patient capital for high-growth firms than traditional investors. Even in those sectors with a highly developed venture capital market, most fast-growing firms still struggle to tie down long-term financing, with most investors expecting a return within three to five years (Laconic & Tulum 2011). Some sectors, such as biotech, are more suited to moving from one investor to next because of the availability of natural exit points in the development of drugs (Lovering et al). But for most industries the innovation process has far more risks and uncertainties (Mazzucato 2016). Because their governance priorities do not necessarily require short or even medium-term profits, public banks can provide more stable financing over a longer time horizon. Many of the existing state development banks internationally were created in order to take advantage of precisely this attribute. KfW in Germany was created to fund post WWII reconstruction, while Brazil's BNDES's original purpose was to fund large-scale infrastructure projects. More recently, state investment banks have stepped in to fill in the post-recession vacuum in green energy lending (ibid).

In addition to being more patient, specialist public banks can also be effective at lending to areas of the economy not always reached by traditional banks and investors. In a recent review of the international evidence on regional banking, the New Economics Foundation found that, in Switzerland and Germany, the majority of SMEs rely on local banks (NEF 2015). In Switzerland, 80 per cent of medium firms and 58 per cent of small firms bank with their cantonal bank. In Germany, 75 per cent of SMEs bank with one of the local Sparkassen, which are publicly-owned, local independent banks. Though many of these banks have a public interest mandate, they are run like commercial banks but with a narrowed and specialist focus tailored to the local area. NEF's review of the commercial viability of local, specialist banks found that their rate of return averaged around 10 per cent, but that returns were far less volatile than those of larger international banks. Local banks were also found to be more likely to lend for productive investment, rather

than real-estate and intra-financial dealings, with balance sheets that contained more than twice as many productive real economy assets than their private counterparts (ibid). These banks also had the economic benefit of operating counter to the business cycle. In the Europe, they were more likely to offer credit in the years directly following the recession, counteracting the fall in commercial bank lending (Mazzucato 2016). Had the UK also had such banks, it is unlikely that credit conditions would have contracted as severely as they did.

Specialist banking has also seen success in the UK too, albeit on a much smaller scale. In 2012, the Government set up the Green Investment Bank (GIB) as a commercially viable, public purpose company. By limiting the scope of its investment opportunities to four low-carbon sectors – offshore wind, energy efficiency, waste and bioenergy and onshore renewables – the aim was to invest in commercially viable investment opportunities which conventional finance markets regarded as too risky to finance on their own (BIS 2011). Between 2012 and 2016, the GIB committed £3.4bn into transactions worth £12bn in the green economy, spread over 100 projects. In addition to its investments, it also developed a variety of metrics to improve evaluation of green projects. As a specialized investor, it has played a major role in boosting standards in the overall investing market for commercialised green technology (GIB 2017). Since the GIB's creation, green investments have been steadily growing. In 2015, a record £13.4bn of investments in these technologies were made, with GIB directly involved in around two-thirds of them by value.

The specialist mandate of the GIB enabled it to develop expertise which private sector lenders could not. It was therefore able to conduct due diligence on projects on behalf of other lenders, and reduce the risks they faced. By operating as a commercial entity with specialist expertise, the GIB was able to demonstrate that there were profitable opportunities in these sectors. In so doing it effectively 'crowded-in' private investment, even in those transactions in which it was not directly involved. In the last three years, the GIB reported a forecast project level rate of return of around 10 per cent over the lifetime of investments, and in 2015-16 this yielded profits of around £10 million, contributing to its successful sale to the private Australian bank Macquarie Group (ibid). There is a strong case for treating the original model of the GIB as a 'phase one' in the creation of new specialist banks with comparable mandates focused on either geography or sector.

There is a comparable case to be made for regional public banks. Here the specialist expertise would be geographic: a deep knowledge of local economies and the businesses based in them. The scale and size of local banks varies widely across Europe, with German Sparkassen typically holding assets between £1 billion and £1.5 billion, and serving a population of around 200,000. In the UK we propose the initial creation of one or two regional banks at the scale of current Local Enterprise Partnerships (LEPs) or combined local authorities. (LEPs on average serve a population of a little more than a million people.) The Government should seek bids from public authorities and local businesses and trade unions for where the first institutions should be located. We propose they start with seed capital of around £1 billion in the short-term, and start life as investment funds, similar in structure and powers to the GIB. The aim would be to give them borrowing powers in the future once the efficacy of their operations had been demonstrated. After initially being established as publicly-owned banks, there should be a review and transition process that could see a diversity of ownership and governance models being adopted, including local shareholders, co-operatives and stakeholder trusts, in order to foster both innovation and more broadly-based governance. This review could also include consideration of expanding the number of regional banks beyond their initial number and considering the case to allow some banks to engage in retail services as well.

One way for the Government to raise the starting capital for new regional or specialist banks would be through its existing shares in the Royal Bank of Scotland (RBS). The Government owns roughly 72 per cent of RBS, which at current share prices is worth around £22 billion. The Government has long intended to return RBS to the private sector: there is a strong case either for creating new regional or specialist banks out of RBS, or of using the sale of its shares to fund the creation of new institutions.

3.

Promoting longer-term corporate investment requires a stronger alignment of the incentives of companies with the savers who ultimately own their shares

The structure of finance markets affects not only the availability of finance for investment, but also the appetite of firms to invest in the first place. This is because some finance markets – specifically markets in company shares (equity markets) – intermediate the ownership of firms. By doing so they can shape the priorities and incentives of company boards, which in turn influences investment decisions.

Markets in the shares of publicly listed companies are particularly important. In the UK, stock markets and their associated institutions and actors intermediate the ownership of shares in companies that make up well over half of all turnover in the UK's non-financial economy. In an economic sense, the 'owners' of shares are those who bear their 'economic interest': the potential to gain or lose from the value of an asset and its returns. This can be individuals (especially through pension funds), other trusts or endowments, or other corporates.

INTERMEDIATING OWNERSHIP – FOR WHOM AND WHAT PURPOSE?

The majority of those who bear the economic interest of company shares are interested in the underlying value and cash flow of their investment over a long-time horizon. Individuals might save for a house or a retirement income, or for an unknown contingency in their life. Pension funds and insurance companies invest to meet future liabilities, and trusts and foundations invest to sustain themselves indefinitely (Davis, Lukomnik and Pitt-Watson 2016). A significant majority of savers, therefore, are interested in long-term returns.

Investment for the long term is good for long-term savers. Improving the stock of capital used by workers in production processes through the adoption of technology, skills and system innovations is a prerequisite for profitability over the long term, and therefore to higher earnings and better quality jobs. Recent econometric evidence suggests that companies with a long-term view deliver a measurably superior commercial performance. For example, a recent comprehensive study using data from the US found that companies displaying long-term decision making and targeting, performed significantly better in terms of revenue, earnings, profits and market capitalisation between 2001 and 2014 compared with more 'short-termist' firms (Barton et al 2017). Over a 13-year time horizon, these firms therefore represented a better investment for savers.

Savers are also citizens. They therefore benefit, not only from a return on their investment, but also from the more diffuse impacts that their investments have on the wider economy, society and planet across their lifetime – they may also care about their children's and grandchildren's lifetimes as well. Recent evidence again suggests that firms targeting sustainability goals beyond their own immediate commercial interests also appear to outperform – even solely in stock market terms – companies with seemingly more commercially-driven, short-term practices (Eccles et al 2011). This finding is broadly consistent across

the academic literature: a systematic review of more than 100 studies confirms that ‘environmentally and socially sustainable’ investment decisions yielded superior risk-adjusted returns to shareholders (Fulton et al 2013). There seems to be little doubt that long-term corporate governance, even – or perhaps especially – when it accounts for broader sustainability, performs better than short-term governance in terms of narrow profits and returns to savers.

THE GROWTH OF INTERMEDIARIES

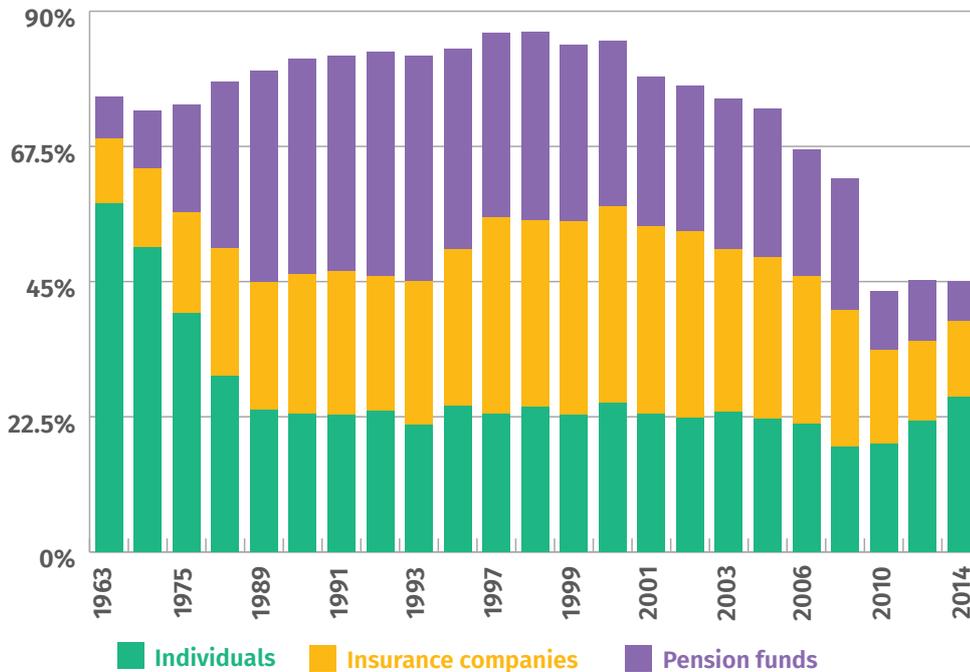
Savers, however, rarely bring their interests to bear directly over the decisions made regarding their assets. Instead, they rely on a long chain of intermediaries. For example, a pension holder will rely on their pension trust to manage their investment, the trustee in turn may rely on a number of different asset managers to buy and sell or hold shares, who in turn will use nominees to facilitate or broker transfers in stocks. Proxy companies may also be used to leverage the voting power of shares over the firms who issued them. Most of these stages involve armies of researchers, expert advisors, consultants and especially computer algorithms to assist in the decision-making process from one part of the chain to the next. This increases the number of agents and interests that come to bear between the initial savers and the assets they ultimately own.

The number and size of intermediaries in public equity markets has exploded in recent years (see figure 8). Between 2000 and 2014, the proportion of individuals, insurance funds and pension funds among all direct beneficial share owner’s resident in the UK, fell from 85 per cent to 45 per cent (IPPR calculations using ONS 2015). Meanwhile the volume of all share transactions involving these longer-term investors has fallen from 70 per cent to 40 per cent (Persaud 2017). This has not been driven by a decline in these investors as a proportion of all economic interests. The number of pension holders in the economy, for example, has grown twice as fast as nominal GDP between 2008 and 2015 (IPPR calculations using ONS 2016 and ONS 2017c). Rather it has been driven by the even faster growth in intermediaries, particularly asset managers.

FIGURE 7

The proportion of individuals, insurance funds and pension funds among all direct beneficial share owner's resident in the UK has fallen significantly

Proportion of individuals, insurance funds and pension funds among all owners of UK shares that are resident in the UK, 1963 to 2014



Note: the total number of UK resident owners fell from 93 to 46 per cent over this period as the proportion of overseas investors rose. The ONS does not disaggregate overseas owners by type of institution, but the proportion of individuals, insurance companies and pension among all owners is thought to be similar to that among UK residents. Data between 1998 and 2008 are partially based on ONS analysis conducted in 1997.

Source: IPPR calculations using ONS 2015

The problem – from the point of view of both firms and their workers on the one hand, and savers (many of whom are also workers) on the other – is that the growth in intermediaries in the UK appears to have coincided with firms increasingly using finance for things other than long-term investment.

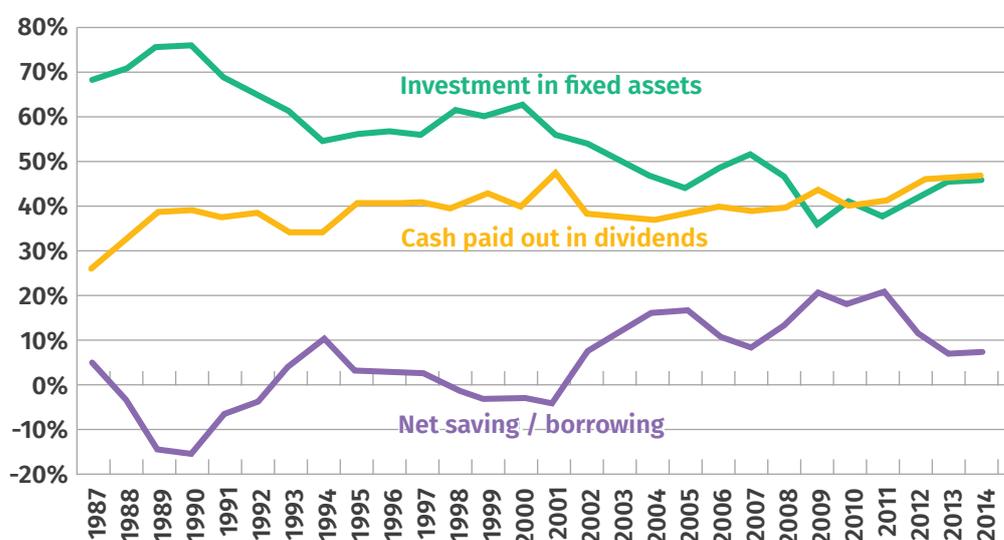
In theory, increasing the number of intermediaries can lead to either improved or worsened efficiency, depending on how well markets and institutions are operating. A resource-based theory (RBT) of firms would suggest that a company entity represents an economic frontier between, on the one hand, the efficiency of transactions intermediated by a market, and on the other, the efficiency of internalised transactions (Barney et al 2014). Put simply, firms exist because some transactions are more efficient when internalised (for example the payment of a salary in exchange for labour). From the point of view of the economic principal – in the case of business finance this could be either savers or companies depending on which end of the intermediation chain you start with – externalised market transactions are most efficient when they allow for division of labour, while still aligning the incentives of intermediaries with their own. However, this efficiency can break down if incentives can't be aligned and intermediaries are able to charge excessive economic rents. In this instance, internalised transactions can be more economically efficient, benefiting from a

lower transaction costs and intangible advantages such as corporate culture and collective knowledge (Sirmon et al 2007).

From the work of Philippon and Bazot presented in chapter 1 we know that, in aggregate, financial markets are charging excessively high transaction costs to the rest of the economy. Given this, it is likely that increased fragmentation and division of transactions represents reduced efficiency from the point of view of companies and savers. We certainly know that the increase in number of intermediaries has coincided with a reduced tendency from firms to invest. Over the last quarter of a century, the proportion of profit that UK companies have been distributing to shareholders, rather than reinvesting into their businesses, has been increasing (see figure 9). For UK non-financial corporations, the proportion of discretionary cash flow returned to shareholders increased from 39 per cent in 1990 to 46 per cent in 2016 (Tomorrow's Company 2016). This is also consistent with Bank of England survey data that shows only around 25 per cent of finance raised by companies is spent on investment, with the remainder split between purchasing financial assets, distributing to shareholders and maintaining as cash. This trend is not unique to the UK. Analysis of McKinsey's Corporate Horizon Index shows that the median company on the Standard and Poor stock market became significantly more short-term between 2000 and 2014 (Barton et al 2017).

FIGURE 8

The UK corporate sector is now a net saver, not a borrower, and investment is declining
Proportion of UK non-financial corporation cash flow allocated to investment, dividends and saving, 1987–2014



Source: Tomorrow's Company 2016: 11

The combination of these three empirical observations – excessive transaction costs, increasingly fragmented intermediation and reduced investment from firms – represents something of a smoking gun. Do the dynamics within equity markets contribute to the problem of low investment by misaligning the incentives of savers and firms? In this chapter we argue that the dynamics of intermediation are indeed leading to a misalignment of incentives. In particular, the driving force for this misalignment is the manner in which intermediaries make their money: essentially based on the *volume*, and *relative performance* of their activity rather than the *absolute value* they create.

MISALIGNED INCENTIVES – QUANTITY OVER QUALITY

The first important dynamic that contributes to a misalignment of incentives in equity markets is rewarding volume irrespective of results. Most asset managers are paid for the size and frequency of their activity. In the first instance, this takes the form of an ‘asset-based fee’: the payment made to an asset manager calculated as a flat proportion of the size of the fund they are managing, and irrespective of any returns generated (Investment Company Institute 2013). Brokers are also normally remunerated for the number and value of transactions they oversee, and consultants are given a base fee for their advice, irrespective of results (Kay 2012). In the former case, this can lead to investment banks failing to raise concerns about corporate governance for fear of being less attractive to brokers and asset managers (Waygood 2014). And in the latter case especially, this has helped to develop a systematic bias towards action over inaction, irrespective of rationale. Because of the opacity of finance markets, it can often be difficult to discover whether advice is good advice, even after share prices are realised (Kay 2012). Given this relative protection against risk, advisors and analysts expect that they are more likely to receive future custom if they advise clients to do something, rather than to do nothing (Ibid). In turn, this has led to further cognitive errors in the form of optimism bias, excessive aversion to loss, and ‘anchoring’, whereby sense is made of information overflow by creating narratives around data that does not actually exist (Ibid).

Performance is of course also measured and rewarded, but crucially it is too often *relative* performance that counts. The ‘efficient market hypothesis’ would suggest that, given full information, markets will achieve prices that reflect all knowable information at the lowest possible transaction cost to the owners and recipients of capital. This happens through asset managers – as well as portfolio managers within insurers and pension funds – working as ‘market makers’, researching the value of companies and using that information to buy and sell shares. In this way, information feeds into prices, ensuring that the latter reflects the fundamental value of the firm that issued the shares. However, as John Kay found in his report for the Coalition Government, in practice the problem lies in reconciling two contradictory time horizons (Ibid): the horizon over which asset managers are rewarded for their analysis of firms; and the horizon over which the price of shares will move to reflect their fundamental value, assuming they ever do. Asset managers will not be rewarded if information is immediately incorporated into prices, nor will they be rewarded if information is never incorporated: there needs to be a gap (Ibid). But at the same time, the larger this gap in horizons, the less incentive asset managers have to research fundamental value. Instead, the incentives to base decisions on what *other* market actors are doing becomes stronger. Successful managers, then, become those that best anticipate the behaviour of other managers, not the fundamental value of shares: what Keynes famously described as a ‘beauty contest’ (Keynes 1936).

The beauty contest produces diametrically opposite results from the efficient market hypothesis. If there is full public knowledge then the beauty contest results in an infinity of possible equilibria, whereas the efficient market hypothesis would reflect the real general equilibrium of the economy (Morris and Shin 2002). This is because the efficient market hypothesis assumes that market actors are feeding information about the so called ‘real’ economy into prices, whereas the beauty contest assumes actors are feeding in information about themselves. This can explain why funds and profits might disproportionately flow towards managers that oversee superior relative performance irrespective of (or sometimes counter to) their ability to identify or create long-term value in the equity they hold (Morningstar 2017).

Frequency and speed, therefore, are perhaps the key features of successful relative performance. Fast trading computers located adjacent to stock market

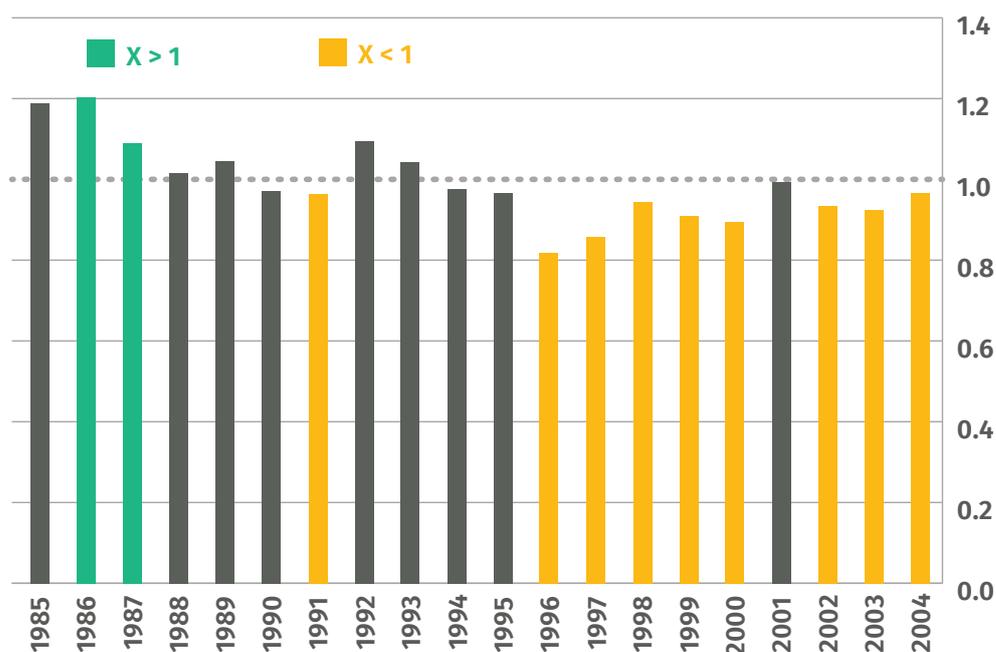
exchange computers and owned by a third party can respond to information more quickly than other market actors. Profits can therefore be made by a third party by intervening between a buy and sell order of two other market participants. By buying the asset from the original seller, holding it for three thousandths of second, and selling to the first would-be buyer, the computer can profit from any difference in valuation between the other two actors. The margins are necessarily small, but if repeated over thousands of transactions, fortunes can be made over a very short time horizon. In turn these fortunes are paid through higher prices to everyone else with no productive value added to the economy whatsoever (Davis et al 2016).

The empirical prevalence of this type of activity is striking. Hedge funds, high frequency traders and proprietary traders make up 72 per cent of equity market turnover in the UK (Kay 2012). In the US, 51 per cent of all transactions are generated from these types of computer programmes, and 39 per cent in Europe (World Federation of Exchanges 2013), and a 2010 study showed that managers trade more than they plan or expect to, despite being aware that the effects could be damaging for their clients (Guyatt and Lukomnik 2010). The econometric evidence also appears to show that the propensity for this type of trading has created a systematic bias towards short-term rewards. Research by Haldane and Davies at the Bank of England found UK and US stock markets displayed excessive discounting of risk that was statistically significant in eight of the last nine years of the study's panel between 1985 and 2004 (see figure 10). Returns were overly discounted by around 5 to 10 per cent a year, so that returns on a 30-year time horizon were typically negligible, despite returns over this time frame being highly valuable to many savers (Haldane and Davies 2011).

FIGURE 9

UK and US stock markets showed systematic, repeated short-termism before the financial crisis

Discounting of shares in US and UK stock markets relative to the appropriate time discount, 1985 to 2004



Note: Values less than 1 indicate an average discounting of future returns on shares beyond the appropriate time discount. Coloured years denote those that are statistically significant.

Source: Bank of England 2017

MISALIGNED INCENTIVES AND AGENCY CAPITALISM

The combination of overly subsidised volume and a culture where relative performance wins can also lead to a costly over-diversification by asset managers. As Stephen Davis, Jon Lukomnik and David Pitt-Watson (2016) argue, this enables fund managers to exploit the rule of averages. As Davis et al observe, a good way of guaranteeing a high-performing fund that attracts large numbers of investors is to run so many funds that at least some of them will be high performing. If 64 funds are established then, all else being equal, 32 of them will perform better than the market average after one year. After six years, the law of probabilities means that simply by chance you might expect to be left with one fund that has outperformed the market average in each consecutive year over the period. This fund will attract inflows of new investments and assets along the way, while the poorer performing funds can be discontinued and restarted with a clean historical record. So long as an asset manager has a number of 'high performing' funds, they will retain and attract clients and the cost of multiple lower performing funds will be subsidised by the asset based fee they accrue. Some variation and diversity of funds is important, but the current number of funds reported on by Morningstar alone is in excess of 53,000 (Davis et al 2016). By contrast, the average defined contribution pension schemes tends to have no more than 25 investment options, which would suggest the limit to which the 'investible universe' can helpfully be divided is significantly below 53,000 (Ibid).

This phenomenon is sometimes described as 'agency capitalism'. Multiple small misalignments in incentives are driven by rewarding intermediators based on volume and relative – rather than absolute – performance. This in turn is exacerbated by derivatives, which can insure the owners of shares against risk. This means that not only can the main traders in equity be largely uninterested in the underlying value of the shares they own, but beneficial share ownership can also be entirely decoupled from the economic interest of a share – leading to conflicts of interest (Ibid). As such, misalignments in incentives aggregate to a system-wide effect where the owners of shares are 'rationally reticent' to actively nurture and improve the fundamental value of the companies whose shares they trade on behalf of savers (Gilson and Gordon 2013). Intermediaries that are paid for the frequency of their activity over short time horizons, and are insured against the economic risks they take, are not incentivised to steward UK companies to create long-term value.

Academic work on company takeovers gives further evidence on the negative impacts of agency capitalism. Standard economic theory might suggest that a 'market' in company takeovers would provide incentives to improve economic efficiency (Romano 1992). However, the empirical evidence suggests that there is statistically no difference between firms that are bought out or not bought out, other than that acquired firms tend to be smaller than non-acquired firms. Firms seeking to avoid takeover, then, are incentivised to increase their size, not their long-term profitability (Hughes and Singh 1987, Cosh and Hughes 2008).

Agency capitalism appears to have had a measurable effect on those investors who use the services of asset managers. Despite surveys showing that trust is the most important factor against which asset managers are judged, just 39 per cent of investors in the UK think that the industry as a whole can be trusted to serve their interests (CFA Institute and Edelman 2013).

From the point of view of savers, workers and society as a whole, the danger of misaligned incentives in equity markets is that they shape the governance decisions of the UK's major firms, making them more short-term and less inclined to invest in long-term value creation. This appears to be happening through two important transmission mechanisms: shareholder ballots and CEO remuneration. Voting at the annual meeting of companies can have a tremendous effect on

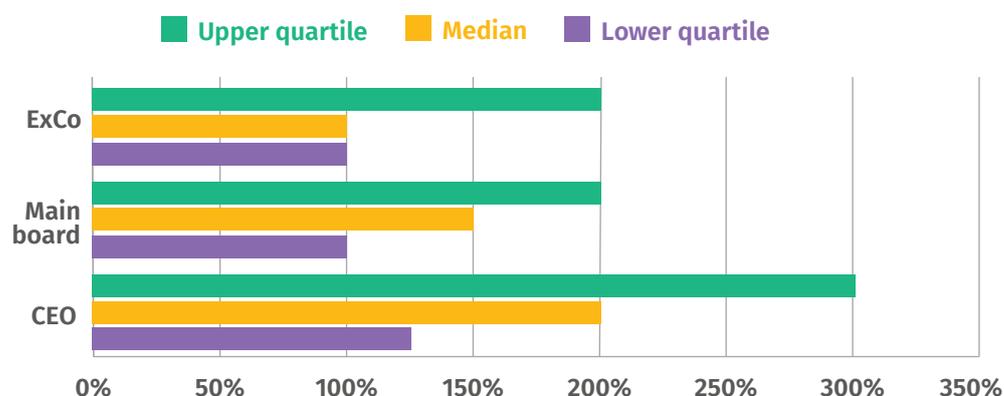
absolute value. Ballots elect directors, who in turn appoint the CEO, but they can also determine rewards policy for executive staff and decisions over mergers and acquisitions (Davis et al 2016). However, there is a measurable lack of engagement in asserting ownership rights through voting. Individual investors, who make up more than a quarter of beneficial owners, only realise around 29 per cent of their voting potential. Institutional investors utilise 90 per cent of their votes, but many of these rely on the intermediation chain. This is concerning because despite employing hundreds of people, the largest asset managers devote just four people on average to conducting analysis in support of voting decisions. This equates to one person making the decision to appoint 50 directors every working day of the year (ibid). In part this is due to a reliance on proxy voting companies. But this in turn raises concerns, given that transparency and accountability for the advice these companies give is widely thought to be lacking (Waygood 2014).

CEO remuneration is the second important transmission mechanism for ‘market myopia’ to enter corporate priorities in corporate governance decisions. The inclusion of share options in CEO and board remuneration packages is intended to align company leadership with shareholders. However, there is considerable evidence that this approach fails to align incentives properly. Creative accountancy, and the backdating of options, help to decouple even short-term executive performance from their rewards (Bebchuk and Fried 2006). But more fundamentally, even where incentives are aligned with beneficial owners, this enables the short-term horizons of equity intermediaries to gain purchase in the board room. Share ownership for the median FTSE 100 CEO is worth 200 per cent of base salary, and 25 per cent of CEOs own shares worth more than 300 per cent of salary (PWC 2012) (see figure 11). Crucially, executives also display excessive short termism. Survey evidence shows that more CEOs would opt for £250,000 paid to them tomorrow than £450,000 in three years’ time. This equates to a discount rate of 20 per cent, compared with a ‘rational’ rate of around 8.5 per cent (Haldane and Davies 2011).

FIGURE 10

Senior employees of UK publically listed firms have a significant economic interest in the stock market

Proportion (per cent of base salary) of share ownership by job type among FTSE 250 and FTSE 100 firms, 2011



Source: PWC 2012

These transmission mechanisms appear to be affecting business decisions. Econometric analysis of the empirical evidence in the US showed that companies that fall just short of their earnings targets would also cut spending on R&D and

intangibles, while firms that just miss their targets see a decline in their stock market valuation (Terry 2014). Further evidence from the US has shown that more than 90 per cent of the largest firms remunerate their highest-paid employees for their performance over a time horizon of three years or less, despite the fact that any investment in (say) R&D would likely take far longer to bear commercial advantages (IRRC Institute and Organizational Capital Partners 2014). A survey of more than 400 executives also found that 75 per cent would sacrifice positive economic outcomes if it helped smooth short-term earnings: that is, actively rejecting highly profitable projects if it affected quarterly expectations. And this was reported to be driven explicitly by the desire to satisfy the expectations of the intermediary institutions trading their shares (Graham et al 2005).

SUPPORTING RESPONSIBLE STEWARDSHIP

The evidence strongly suggests therefore that the chain of intermediation in equity markets disrupts and misaligns incentives between savers and company boards which, in turn, contributes to lower levels of investment and long-term value creation by UK firms. Underlying this misalignment of incentives are two important dynamics, in which intermediaries are paid for relative performance, and the volume of activity, rather than for nurturing productive long-term investment. Critical to this problem are the short time horizons over which intermediaries accrue rewards through trading shares. To correct these dynamics, we propose a dual strategy, to change the rules by which equity markets operate, using both legal and tax reform.

Our analysis has shown that too much activity is rewarded for relative performance over a short time horizon. Our proposal therefore is that regulators take a system-wide view in order to demand, support and nurture a realignment of incentives between intermediaries and citizen savers.

As the first step, we propose that government strengthens and extends the legal fiduciary duty that applies to actors in finance markets.

Over recent years many sensible reforms have been recommended by a number of institutions, governments and market actors to correct 'market failures' and to enhance 'active stewardship'. These range from boosting transparency with new disclosure guidelines for derivative ownership or new performance metrics for asset managers to shifting away from quarterly targets and short-term remuneration packages for CEOs. We agree that the approach needs to be multi-pronged and inventive. However, regulation that is overly prescriptive and rigid will be ill-equipped to keep pace with fluid and complex financial practices and strategies. The new regulatory strategy, therefore, should take a systemic view rather than reaching a system-wide effect through the sum of multiple individual parts.

We therefore propose that government inserts a spine of legally enforceable responsibility right the way through the intermediation chain. To do this, the legal provision for ensuring that trustees act in the interests of savers should be strengthened, clarified and – most importantly – extended to intermediaries. This legal provision is called fiduciary law, or the 'fiduciary principle'. Fiduciary law requires that agents representing the interests of others take every reasonable step to ensure their actions do in fact result in the best value to the ultimate client. Unlike contractual law, which governs the issuance of loans, fiduciary law allows for agent discretion in interpreting the interests of their clients. This is essential for allowing experts to use their skills and experience efficiently on behalf of clients.

At present, the legal fiduciary responsibilities of a trustee, such as a pension fund, does not pass automatically to the intermediaries to whom they might contract

or delegate tasks. Echoing the recommendation of both the Kay and the Law Commission's separate reviews (2012 and 2014 respectively) for government, we propose:

- first, that the obligations and powers of fiduciary responsibility must remain with a trustee even if intermediaries are contracted to act on their behalf
- second, that the legal reach of fiduciary responsibility is extended to asset managers and brokers in the intermediary chain.

Such an extension of the fiduciary principle will require independent oversight and interpretation. Our proposal is the establishment of a new public body, the Responsible Ownership Commission (ROC), which in the first instance would examine how the fiduciary principle should be extended and defined for 21st century equity markets. Following the model of the Financial Services Council in Australia, the ROC should also recommend explicit broader environmental and social obligations under fiduciary responsibility. The ROC should also provide an ongoing monitoring, supporting and enforcement role. This could include training and consultancy for asset managers and financial analysts, a detailed framework for obligatory information disclosure (such as of derivative ownership and sell-side analysis), an independent complaints procedure, and the power to name, shame and fine for non-compliance those failing to meet fiduciary and disclosure requirements. The ROC should also be seen as the first regulatory response, not the last: In due course the ROC would itself make recommendations to government for further, individual reforms necessary to meet its systemic objectives. These might include proposals such as weighted voting power for longer ownership or a maximum number of firms in an investment portfolio.

TAX REFORM – HARDWIRING NEW INCENTIVES

We propose two tax reforms specifically designed to reverse the dynamics which underlie the misalignment of incentives in equity markets: excess turnover and short-term ownership of shares. The reforms, taken together, would be broadly cost neutral. They involve:

- extending stamp duty reserve tax
- tapering capital gains tax for long-term share ownership.

Over recent years there have been growing calls for the introduction of a type of financial transaction tax in the UK (Seely 2014). But much of this debate tends to overlook that the UK already has a financial transaction tax, known as stamp duty reserve tax (SDRT). SDRT is one of the oldest, best established and cheapest taxes to administer in the UK. At present, a charge of 0.5 per cent is levied on the purchase of shares at the point of certifying a legal transition in ownership. Revenues from this tax are consistently worth between £3 and £4 billion per year, with 90 per cent of this collected automatically via the central securities depository computer. The tax is exceedingly hard to avoid because it is levied on the 'issuance principle': no matter where you are in the world, you have to pay the tax if you register for legal ownership of a share issued by a company incorporated in the UK. This is why 50 per cent of revenue is successfully collected from non-UK residents. Notwithstanding its impressive effectiveness from HMRC's point of view, SDRT has not been updated for three decades, even though the nature of financial intermediation has changed and expanded hugely in that time (Persaud 2017).

In principle, anyone seeking to register legal ownership over a share issued by a firm incorporated in the UK must pay the SDRT. At present, however, exemptions on SDRT are made for intermediaries regarded as 'market makers': the asset managers and hedge funds that seemingly generate liquidity in equity markets by deliberately contributing to increased share turnover. Historically, this type of activity accounted for around 15 per cent of transactions, but the growth in

the intermediation chain now means that 40-50 per cent of share turnover is eligible for exemption (ibid). Despite this, increased turnover has been shown not to improve liquidity when it is most needed (Huang and Wang 2010). Liquidity is provided not by the volume of transactions, but by diversity in buy and sell strategies. A review of the evidence shows that because of the homogeneity of strategies from high-frequency traders – as they all seek short-term returns from large volumes of trades – the recent increases in turnover have mainly served to add to liquidity when it is already in excess, but reduce it when it is in short supply (Persaud 2017).

Borrowing from the detailed work by the financial economist, Avinash Persaud, we propose that incentives for excess trading should be reduced by replacing the 100 per cent relief on SDRT for intermediaries with a new rate of 0.2 per cent. IPPR analysis of Persaud's (2017) own estimates for non-tax transaction costs, and the rate of elasticity in demand with respect to an increase in costs, suggests that introducing a new 0.2 per cent rate of SDRT for market makers would reduce turnover generated by intermediaries by around 60 per cent, and overall turnover in equity markets by about a quarter to a third. The reform would therefore have a significant effect in reducing short-term equity trading. At a conservative estimate, these reforms would also generate new revenue worth around £1.2 billion by the 2020s (IPPR analysis using OBR 2017 and Persaud 2017).

This would be in line with recent experiences in France (2013) and Italy (2012). From a position of not previously charging stamp duty on shares at all, both countries have introduced more far-reaching taxes than the UK's SDRT, albeit at a lower rate. Both countries introduced tax rates of 0.1 per cent on shares, 0.01 per cent on equity derivatives and 0.01 per cent on cancelled trades. Together these have resulted in a reduction in turnover of around 20 per cent (Persaud 2017). Crucially, however, a detailed study of the effects in France found that liquidity in the market was not reduced as a result (Capelle-Blancard and O Havrylchuk 2013).

In order to strengthen its effects, the revenue raised from extending SDRT to reduce excessive volumes of trade could be used to incentivise the longer-term holding of shares. It would be possible to extend reliefs for capital gains tax (CGT) and corporation tax for company equities so they become more generous the longer a share has been owned. This would provide a marginal incentive to hold shares for longer. To the extent that it was successful, rational, longer term owners would be expected to adjust their calculations over the implied discounting of longer-term gains and therefore become more interested in the underlying value of the companies they own.

A number of countries, such as the US, France and Austria, have reliefs on CGT, especially for equity, that apply if an asset has been owned for more than a given number of years. Between 1998 and 2008 the UK also had a relief on business assets that halved the rate of capital gains tax after one year and two years (cumulatively). Although these systems showed some success, they also introduce dramatic cliffs in the tax schedule, offering significant discounts at the point a share is owned for more than one or two years. This can have perverse effects on behaviour, such as market actors selling shares on the day they become eligible for a considerably lower rate of CGT. To counteract this problem, we propose a formula-based tax rate that gradually tapers away the rate of CGT on corporate equity as a function of length of ownership. At the same time, we also propose a form of allowance for corporate equity (ACE) in UK corporation tax that becomes progressively more generous the longer a share is owned (for an introduction to the ACE literature see relevant chapters from Mirrlees et al 2011). Such an allowance would have the advantage, not only of incentivising longer ownership of shares, but also lowering the cost of equity finance for firms looking to invest.

Conclusion and summary of proposals

Reforming financial markets is key to upgrading the UK to a high-investment, high-productivity and high-paying economy. Working alongside industrial policy, corporate governance reform and macroeconomic strategy, financial intermediation can shape both the supply of and the demand for investment. The market in bank loans and private equity investors governs the supply of capital to UK firms that can't finance their investment needs internally. But the markets and institutions that handle and trade public and private equity also intermediate ownership in shares of more than half the private sector economy. This means that, as a system, they shape the priorities and incentives that eventually determine investment decisions across the UK's largest businesses.

Reform of our financial system should therefore be focused on improving the flow of capital to the businesses most in need of investment, and aligning the incentives between company directors and the long-term savers who, ultimately, own their shares.

Raising SME investment requires shifting the focus of bank lending to small, high-growth firms. Banks' current reliance on traditional property collateral for business lending means that horizontal interventions alone, such as the Funding for Lending Scheme, will not ensure finance reaches the places it is most needed to upgrade the economy. Instead, we propose that:

- **the Bank of England should consider the case for raising the relative cost of real estate lending**
- **the Government should look at helping the private sector develop ways of using intellectual property as collateral**
- **the Government capitalises new specialist banks** that can develop the expertise necessary to finance currently under-capitalised projects, both in particular sectors and in particular regions of the country.

Aligning incentives in equity markets and promoting longer-term corporate investment requires changing incentive structures for the institutions and actors that intermediate share ownership. We propose that:

- **the Government strengthens the legal fiduciary principle** that applies to pension trustees and extends it to asset managers, brokers and other institutions that act as shareholding intermediaries
- **a new Responsible Ownership Commission is established** to help institutions interpret their fiduciary duty and ensure that there is sufficient disclosure of information to monitor and enforce behaviour
- **the Government scraps the 'market maker' relief on stamp duty reserve tax** to reduce short-term speculative trading
- **the funds raised from this are used to introduce new reliefs in capital gains tax and corporation tax** designed to incentivise longer-term ownership of shares.

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Discussion Paper

The IPPR Commission on Economic Justice is a landmark initiative to rethink economic policy for post-Brexit Britain. The Commission brings together leading figures from across society to examine the challenges facing the UK economy and make practical recommendations for reform.

This discussion paper explores the reform of business finance markets. It argues that the UK's weak investment performance stems in part from how – and in whose interests – British finance markets are configured. Drawing on a wide range of evidence, it argues that the financial sector is not serving the rest of the UK economy well. It shows how bank loans are skewed towards inter-bank credit, real-estate and traditional collateral, and how public equity markets fail to align the incentives of the UK's largest companies with the savers who ultimately own their shares. The paper makes a series of recommendations on how investment can be raised, by improving the supply of patient capital to high-growth firms and changing the incentives for equity markets to act in the long-term good of companies, workers and savers.