



# Boosting businesses: applying behavioural insights to business policy

---

**Authors:** Nida Broughton, Elisabeth Costa,  
Jamie Pickering, Natalia Shakhina,  
Robbie Tilleard & Hubert Wu



# Contents

## Foreword

Andy Haldane

## Acknowledgements

06	<b>Executive summary</b>
06	The challenges facing business policymakers
07	The need to take a behavioural approach
08	New frontiers in applying behavioural insights to business policy
10	<b>Introduction</b>
10	Why apply behavioural insights to business policy?
12	The aim of this report and toolkit
13	<b>Make it easy</b>
13	Simplify the message and provide clear next steps
15	Reduce friction costs
17	<b>Make it attractive</b>
17	Show that it's relevant
18	Send the message to the decision-maker
19	Sometimes, make it formal and official
20	<b>Make it social</b>
20	Show that other businesses are performing the desired behaviour
22	Find the right messenger
22	Leverage the power of personal and professional networks to enhance learning
24	<b>Make it timely</b>
24	Help businesses to follow through on their goals
26	Harness timely moments and moments of change
27	<b>Conclusion: the next generation of behavioural interventions</b>
32	<b>Endnotes</b>
36	<b>Stay in touch</b>

# Foreword



## Andy Haldane

Chair of the Industrial Strategy Council

Productivity has flat-lined for a decade, its worst performance since perhaps the Industrial Revolution. Where productivity has led, pay has followed; it too has flat-lined for a decade in real terms. There is no more pressing issue in economic policy than solving these twin problems.

This has not been through lack of policy effort. There have been more than a dozen attempts at industrial policies or strategies since the war and many hundreds, if not thousands, of policy initiatives have been attempted. Judging by the UK's productivity record, too few have raised the productivity bar.

If an industrial policy is to work for business it seems very likely it will need to work with business. This is where existing policies may have fallen short. Though well-intentioned, these policies may have ended up unknown about, misunderstood, or simply too much trouble. These barriers are likely to be especially acute for the small and laggardly firms who might benefit most.

Lowering these barriers is, in principle, easy. Doing so practically is less so. This report provides both a framework for thinking about how those behavioural nudges could help improve the effectiveness of business policy and some practical examples of how it has already been done so in other environments.

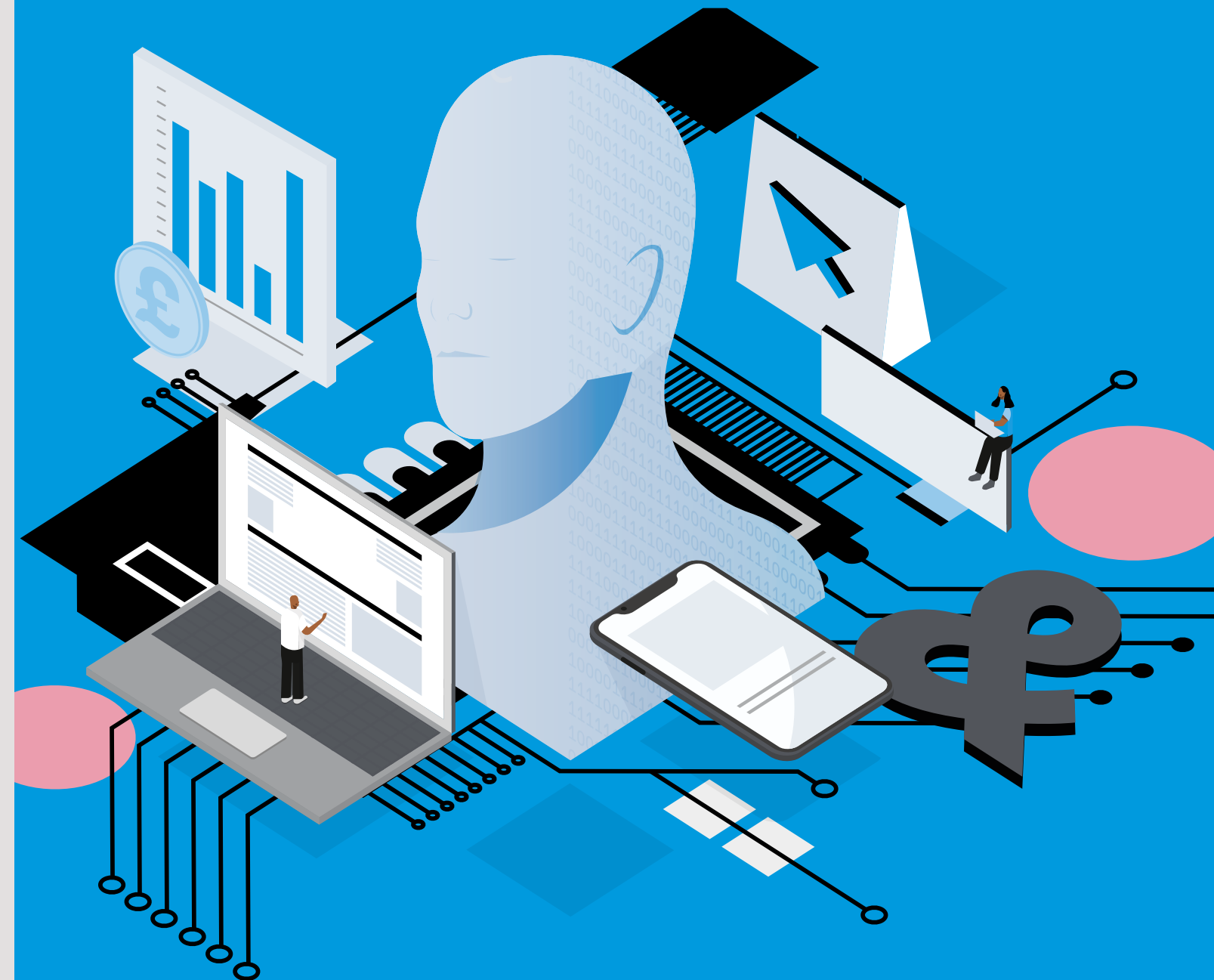
I think this is a real step forward. The report includes recommendations on how to: simplify messages to businesses, reduce the costs of businesses gathering information and encourage businesses to participate in schemes. The report also sets out new frontiers where testing interventions informed by behavioural insights can help make for better business policy: supporting businesses to learn from each other, getting the design - not just the communications - of business policy right, and making markets work for businesses.

Countries around the world are gravitating back towards industrial policies. That is both welcome and timely. But the effectiveness of these new generation strategies requires some new generation thinking on how behavioural economics can help. This report provides that.

# Acknowledgements

We are grateful to the following for providing comments and support with producing this report:

Felicity Aldgate, Georgie Bremner, Rupert Gill, Ross Haig, Michael Hallsworth, David Halpern, Elspeth Kirkman, Gertrud Malsmerjo, James Phipps, Emily Sumner and Handan Wieshmann.





# 1. Executive summary

## 1.1 The challenges facing business policymakers

**When the Behavioural Insights Team (BIT) was set up in 2010, the UK was recovering from its worst economic downturn since the Second World War. Almost a decade on, improving UK growth and productivity remains a central challenge for policymakers.**

Leading businesses are failing to improve as quickly as they used to, and there is a substantial gap between those leading businesses and the rest.<sup>i</sup> UK businesses also face the specific challenge of adapting to the UK's changing relationship with the EU.

More generally, the UK is not alone: the US and much of Western Europe have experienced historically low productivity growth in the past decade.<sup>ii</sup> At the same time, businesses are expected to play their part in dealing with society's big challenges: reducing carbon emissions, helping to fund public services and creating a fairer society.

## 1.2 The need to take a behavioural approach

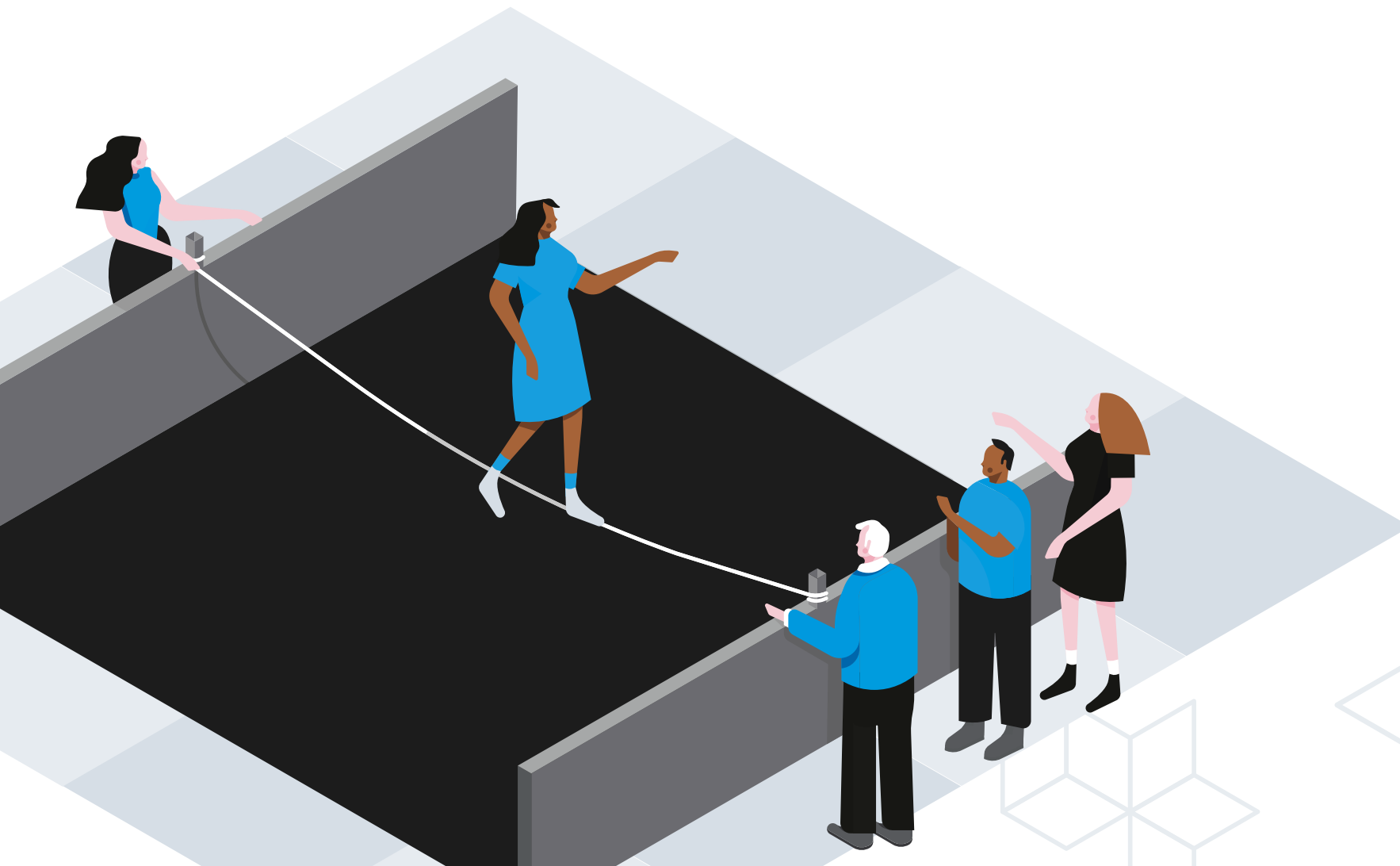
To solve these problems, governments often turn to traditional policies, such as giving tax reliefs in return for investing in research and development (R&D), using regulation to protect customers from unfair practices and offering businesses publicly funded advice.

But lying behind many of these policies are problems that have fundamentally behavioural aspects. Businesses are made up of people making judgements – judgements that are affected by myriad psychological factors. This applies to small businesses and larger ones too, where effects such as groupthink can distort decision-making. In a complex world, managers and owners rely on rules of thumb rather than working out the optimal strategy every time they are faced with a choice. Small businesses managers often think of growth in terms of reputation, market share or employment rather than profits. And the majority of managers mistakenly think their businesses are equally productive as or better than their peers.<sup>iii</sup>

That business decisions are fundamentally behavioural is not a new idea. The UK Government-commissioned ORGANISER report sets out in detail how cognitive and social factors influence business decisions.<sup>iv</sup> But, despite this growing interest in the psychological underpinnings of business decision-making, behaviourally driven intervention design receives relatively little attention from policymakers. Behavioural economics has made great strides in other policy areas but is strangely absent from economics and business policy. This is something we hope to change.

There have been some early successes from testing low-cost, small behavioural interventions. Reducing small friction costs improves download rates of government-provided energy reports; letters acknowledging the complexity of application processes and offering step-by-step advice improve take-up of export subsidies; and businesses are more likely to sign up for an online tax portal when they are told that the majority of other businesses already have one.<sup>v</sup>

These 'first-generation' behavioural interventions are largely about communicating effectively with businesses. The practitioners' toolkit that accompanies this paper draws out lessons from these practical examples on how to make it easier to reach the businesses policymakers want to reach, and make it more likely that businesses will actually take action – whether by applying to a government scheme, taking specific steps to improve growth or encouraging compliance.





### 1.3 New frontiers in applying behavioural insights to business policy

But taking a behavioural approach to business policy does not just mean nudging businesses one by one through targeted emails and letters, as cost-effective as that can be. Behaviourally designed, market-wide interventions should also be part of policymakers' toolkits. Examples include mandating businesses to report their gender pay gaps to nudge them to reduce gender inequality in pay, and the sugar levy, which was carefully designed to incentivise producers to reformulate their products and give them an opportunity to do so before the levy came in. These types of intervention are powerful because they shift the basis on which businesses compete with each other.

There are three key new frontiers that we challenge business policymakers to tackle as part of the next generation of behavioural interventions.



Firstly, many markets are not working well due to behaviourally based market failures. It is too difficult to find information on high-quality suppliers, leaving suppliers with poor incentives to improve quality and value for money. Transparency can be powerful in allowing small, emerging businesses to compete with large businesses with existing reputations: an increase of just one star in Yelp ratings leads to a 5-9 per cent increase in restaurant revenues, with most of the benefit going to independent outlets over chains.<sup>vi</sup> Reputation systems like these fundamentally change the dynamics of markets, aligning the incentives of suppliers with those of customers to generate ongoing productivity gains.

Ironically, some of our least transparent markets are exactly those where businesses themselves are the customers. These are markets that are strategically important for business growth – training providers, business advisors, overseas distributors, accountants and legal advisors. Businesses tell us that they are often unsure whether advisors are offering high-quality advice or not, which prevents them from seeking out valuable advice in the first place.



Secondly, we need to find ways to improve the diffusion of knowledge and innovation across markets. A trial in China found that business managers who were allocated to structured monthly meetings were more likely to innovate and had 8 per cent higher revenues a year later compared to a control group.<sup>vii</sup> The authors found that this compared well to traditional interventions such as training, which often have modest and insignificant effects on performance. Some of the best training and advice programmes involve high-intensity management-consulting-style approaches, which, whilst they deliver a 17 per cent increase in productivity, are much more expensive to deliver.<sup>viii</sup> Imagine if we put that investment into business networks – or, even better, invested in trialling ways of developing structured networks at scale.



Finally, policymakers should incorporate behavioural approaches into the design of mainstream economic policies. They should design business incentives that go with the grain of behaviour, tapping into key business motivations and addressing behavioural barriers. For example, UK R&D tax reliefs for small and large businesses cost £3.6bn per year.<sup>ix</sup> But BIT's qualitative research finds that small businesses deciding whether to invest in R&D for the first time rarely factor the relief into their decisions due to lack of awareness and the fact that it does not help with the upfront costs of investment. Policymakers should also develop and test how communication itself can be used as a market-wide policy tool, drawing on rich evidence on how different approaches to communicating central bank statements can shape beliefs and shift financial markets.<sup>x</sup>

Incorporating a behavioural approach does not mean abandoning the traditional approaches but instead using them in a more intelligent way to make policy more effective and save money in the process. A recent estimate suggests that 'if the UK's least productive firms raised their productivity to their German equivalents it would be worth over £100bn to the UK economy'.<sup>xi</sup> Testing new, scalable interventions could make a significant contribution to closing the 15.4 per cent productivity gap between the UK and the average of the rest of the G7.<sup>xii</sup> If successful, these types of intervention could create a step change in business policy, with substantial gains for business growth and businesses' contribution to society.



# 2. Introduction

## 2.1 Why apply behavioural insights to business policy?

In 2008, the UK Government introduced Entrepreneurs’ Relief. This tax relief means that entrepreneurs keep more of the proceeds of selling all or part of their business. In theory, this should make it more lucrative to start, invest in and grow a business – and so encourage greater business investment and growth. The relief proved to be more expensive than expected: by 2013-14, the cost of the relief to the taxpayer – at £2.9bn – was three times greater than forecast.<sup>xiii</sup> Worse, qualitative research found that the relief rarely influenced entrepreneurs’ actual business decisions, with many entrepreneurs only finding out about the relief after deciding to sell.<sup>xiv</sup> The relief has since been reformed.

Policymakers often turn to traditional levers, such as financial incentives, information and regulation, to influence businesses. However, in designing these interventions, it is easy to fall into the trap of relying too heavily on the theory of how businesses make decisions, or ‘how we have always done things’, and not enough on evidence about how businesses actually behave (see Table 1).

Table 1: Examples of how the reality of business decision-making differs from the theory

The theory	The reality
Businesses always maximise profits	In a complex and uncertain world, it is often too difficult and time consuming to assess the best strategy every time a business is faced with a choice. Therefore, businesses are satisfied with average rather than optimal profits, rely on rules of thumb rather than cost-benefit analysis, and leave cost savings on the table. <sup>xv</sup>
Businesses are primarily interested in profits	Around a third of small and medium-sized enterprise (SME) owners think of growth in terms of improving their reputation, market share or employment rather than profits or turnover. <sup>xvi</sup>
Businesses are well informed about their performance and respond to competitive forces	Around four-fifths of business managers believe that their firms are equally productive as or more productive than their peers, and business managers consistently overrate their abilities. <sup>xvii</sup>

Not all businesses are interested in growth

“It just annoys me when they talk about growing your business, when a lot of the time, people don’t necessarily want to grow the business.”

Small business owner on business growth

Failing to incorporate a good understanding of how and why businesses act in the way they do means that we can end up with policies that are poor value for money – and, in extreme cases, that backfire. In the case of Entrepreneurs’ Relief, a range of behavioural factors are likely to have reduced its effectiveness. Future tax relief claims are unlikely to have much salience at key decision-making points such as setting up and investing, when upfront costs and effort loom large compared to the future abstract benefits of selling the business (present bias).

Even apparently simple ideas such as providing information can backfire. For instance, sending non-exporters information about the benefits of exporting and how to go about it can make them more pessimistic about exporting (Box 1).

### Box 1: Providing information can backfire

Non-exporters tend to be more pessimistic about the costs and benefits of exporting compared to existing exporters. One group of academics conducted a randomised controlled trial (RCT) to test the impact of sending firms information about the benefits of exporting.

The brochure only had a positive effect on export sales for firms that were already exporting. In contrast, non-exporters that received the brochure became more pessimistic about exporting.<sup>xviii</sup>



Businesses are made up of people, and people's actions are affected by myriad psychological factors, such as social norms, present bias, salience and loss aversion. In smaller businesses, complex judgements are often made by single decision-makers under substantial time pressure, making their judgements more prone to behavioural influences.<sup>xxix</sup>

In larger firms, decisions are affected by psychological factors that affect group, as well as individual, decision-making. Groups may fall victim to groupthink, only listening to what is already known rather than critically evaluating ideas. Cascade effects, where members follow what others say or do, may amplify issues. For example, after issuing an edict for 'no more PowerPoint in my meetings', Sheryl Sandberg, COO of Facebook, was surprised when the entire Facebook sales team assumed – with a high amount of accompanying annoyance – the directive was for all meetings.<sup>xxx</sup> Finally, group decision-making can sometimes lean towards more extreme positions as simple ideas become more complicated and polarised as they work their way through committees.<sup>xxxi</sup>

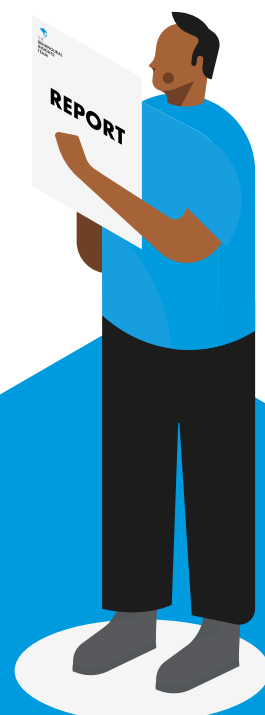
## 2.2 The aim of this report and toolkit

There is an increasingly rich amount of research on behavioural influences on business decisions. Reports such as *ORGANISER*, targeted at policymakers, set out in detail the cognitive, social and cultural drivers of firm decision-making.<sup>xxxi</sup> We do not seek to replicate these, nor do we cover how businesses themselves might apply behavioural insights to improve performance and well-being in their workplaces.<sup>xxxi</sup>

Instead, this report focuses on, firstly, drawing out lessons from trials of on-the-ground interventions to shift business behaviour, and, secondly, setting out where policymakers should direct their focus next.

The **rest of the report** summarises these lessons within BIT's EAST framework.<sup>xxiv</sup> Each section outlines key principles and case studies of interventions. The concluding section maps out new frontiers: interventions that have not been tested but that, if successful, could substantially improve the impact and cost-effectiveness of business policy.

The **accompanying practitioners' toolkit** is for those that are designing and running a business-facing programme right now. It includes more detailed guidance, tips and resources on how to improve take-up and engagement, based on what's worked in the past.



# 3. Make it easy

We all have limited time and mental capacity to process information (known as 'cognitive bandwidth').<sup>xxv</sup> For businesses, the cognitive bandwidth required to make many day-to-day decisions means that there is little space for longer-term strategic thinking, such as about new investments and innovation, or applying for business support.<sup>xxvi</sup> The golden rule for improving the odds of businesses taking action – whether it's applying for a loan, signing up for business advice or preparing for new regulation – is to design interventions that make it easy.

Limited cognitive bandwidth due to time pressure and volume of other decisions and tasks

**"I haven't had time to think about how we do that."**

Small business owner on take-up of business advice

## 3.1 Simplify the message and provide clear next steps

Complex information and language are difficult to understand and digest.<sup>xxvii</sup> Businesses often do not know what policymakers specifically mean when they talk about abstract concepts such as 'innovation'.<sup>xxviii</sup> When we want businesses to take a specific action, it can help to divide information into easy-to-digest chunks and straightforward, specific next steps.<sup>xxix</sup> This is especially important when the process we want businesses to engage with is complex: as shown in Box 2, in these situations, it can be helpful to acknowledge the complexity and help businesses to navigate the process.

**Box 2: Increasing take-up of an export support programme**

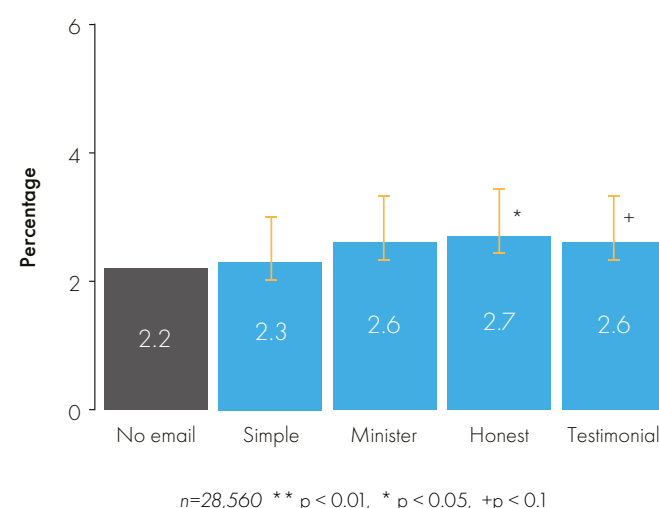
Turkey's Ministry of Trade offers assistance to businesses trying to break into exporting. Businesses can apply to recoup money spent on activities such as international fairs. However, in 2017, some proportion of the programme's annual budget went unspent.

BIT worked with the Ministry of Trade to understand why businesses don't apply. We found that a third of businesses did not know about the offer. Of those that knew, many were put off by the complexity of the offer and a misperception that the assistance might not be paid out even if the business successfully applied. Businesses also had limited time to devote to learning about the export support programme and opportunities to export, and were often content to carry on doing business the way they always had.

Working with the Ministry of Trade, we sent four different email messages to eligible businesses. Combined, these emails increased the likelihood of applying to the programme by 18 per cent. The most successful message, was an 'honest' message that was upfront about the effort businesses would need to invest to complete the submission, and provided a step-by-step guide on how to receive assistance. This message improved the likelihood of applying by 27 per cent.

A simple brief message that introduced the export support programme that pointed out that the recipient was likely to be eligible resulted in the highest click-throughs, but generated the least applications. We also tested an email coming from the Minister, and an email containing an endorsement from a peer ('testimonial' in Figure 1).

**Figure 1: Percentage of businesses that applied for a subsidy**

**Where this can be applied now**

- **Communications with businesses:** Simplify the message, use easy-to-digest chunks and include clear next steps on websites, letters and emails providing advice and information for businesses.

**3.2 Reduce friction costs**

Businesses can be put off from finding out about support or applying for it because it is too complex and time consuming. A poor experience of trying to find and apply for support can deter businesses permanently.<sup>xxx</sup> Simply reducing the number of click-throughs needed to access content can make a big difference to take-up (Box 3). Examples of specific actions that government and business support agencies can take to make it easy to find and apply for support include:

- **Making it easier to check eligibility:** Checklists and filters can help businesses to quickly check what they are eligible for. Where available, existing data (for instance, from public company registration databases) can be used to build automatic eligibility checkers or recommend schemes that businesses are likely to be eligible for.
- **Pre-filling or auto-filling forms:** Existing data held by governments and agencies can be used to pre-fill forms. In the UK, the Companies House API can be integrated into other websites, allowing businesses to auto-fill basic information from Companies House, such as company number and address.<sup>xxxi</sup> Pre-filling forms has been shown to be highly effective in other contexts, such as encouraging applications to higher education and reducing error rates in tax submissions.<sup>xxxi</sup>

In applying this principle, policymakers should carefully consider what specific behaviour they ultimately want to change, and therefore where it is most important to remove friction. For instance, making it easier to claim investment-related tax reliefs after an investment has already taken place risks increasing claims but not investment itself. In contrast, making it easier for businesses to check whether they will be able to claim before the investment has taken place may make the relief more effective in encouraging additional investment.

**Friction costs put businesses off otherwise attractive schemes**

**“The message [about a new scheme] is given out that this is the best thing since sliced bread, so people do initially engage. But then they find it such a tortuous, unpleasant, time-consuming process that they disengage. That’s important, because it means that they won’t engage in the future.”**

Small business owner on publicly-funded innovation support



**Box 3: Improving take-up of energy efficiency reports**

The Dutch government offers annual energy efficiency feedback reports to individual companies that sign up to a voluntary scheme. However, only 14 per cent of companies were downloading the report. The government worked with academics to test approaches to increasing the number of downloads of the report.

The study found that sending a shorter email with one fewer click required to access the report trebled the download rate. The study also tested a message variant that included a statement that 'your company report shows how your company performs, compared to other companies in your sector'. This was intended to highlight that the report contained new sector-wide information. However, this did not have an additional positive effect.<sup>xxxiii</sup>

**Where this can be applied now**

- **Applications for business support and incentives, and tender processes for public procurement:** Streamline processes by minimising the number of steps and clicks. Minimise the amount of information that needs to be filled in through auto-filling and pre-filling where possible.
- **Websites offering information on business support:** Make it easier for businesses to find the right support for them online using filters and eligibility checkers.
- **Communications with businesses:** Minimise the number of steps and clicks required for the business to take the desired action.



## 4. Make it attractive

We are more likely to do something that our attention is drawn towards.<sup>xxxiv</sup> Making key messages and government incentives salient, attractive and relevant is especially important for busy business decision-makers who have limited time and attention.<sup>xxxv</sup>

### 4.1 Show that it's relevant

Businesses tell us that they often find it difficult to identify what support they are eligible for and is right for them.<sup>xxxvi</sup> Governments and agencies should use existing data to tailor the information they send to businesses. They should also signpost information about eligibility criteria that cannot be easily pre-checked against existing data, and clearly signal that the business has been selected to receive the information rather than being sent generic material (Box 4).

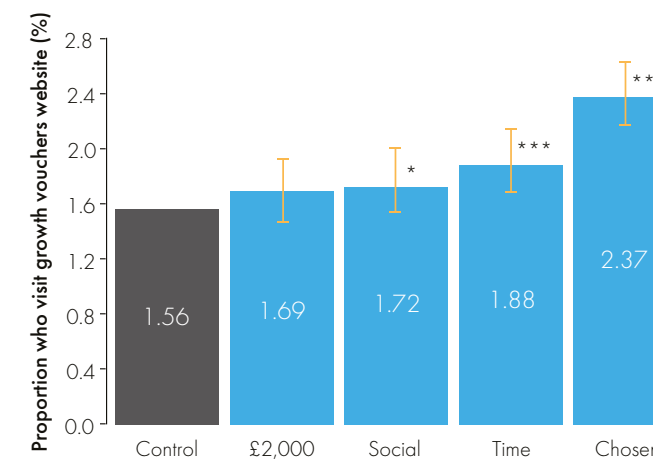
**Box 4: Improving take-up of Growth Vouchers**

Growth Vouchers was a programme that ran from 2014 to 2015 in the UK. Businesses could apply for a voucher to part-pay for business advice.<sup>xxxvii</sup> BIT worked with the UK Department for Business, Innovation and Skills and Her Majesty's Revenue & Customs to send five different messages to 600,000 SMEs.

The most effective message was one that emphasised that the business had been 'chosen' to receive information about Growth Vouchers because it was likely to be eligible. This was more effective than messages emphasising the limited time to apply, the number of other businesses applying or the amount of money available.

As shown in Figure 2, 2.37 per cent of businesses receiving the 'chosen' message clicked to apply compared to 1.56 per cent of the control group. Overall, the trial led to an extra 9,000 applications for the Growth Vouchers programme (more than any other single source) – all generated using a communication channel that was free.<sup>xxxviii</sup>

Figure 2: Percentage of recipients clicking to apply for the Growth Vouchers scheme



Total n=376,738 \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Show businesses what’s relevant for them

“Highlight and target businesses that may be suitable for these programmes.”

Business owner on what government can do to make it easier to find the right support

Where this can be applied now

- **Communications with businesses:** Use data to tailor and target information about new schemes or low take-up of tax reliefs, grants or business support offers. Let businesses know that they are not getting generic information.



4.2 Send the message to the decision-maker

For some messages, the intended audience might be the CEO. For others, it might be the accountant or the business manager. Depending on who the audience is, different methods of contact may be more or less effective<sup>xxxix</sup> – for example, company registration databases often have contact details for company directors but not HR officials. Different touch points should be considered – for instance, for professional bodies, it may be especially effective to reach HR professionals or finance directors. Another approach is to simply ask who the right contact is, or ask the recipient to forward the message on – an approach that The Pensions Regulator took when rolling out communications to encourage businesses to get ready for new pensions regulations (Box 5).

Box 5: Encouraging businesses to get ready for auto-enrolment

In 2016, BIT worked with The Pensions Regulator (TPR) in the UK to send emails and letters to businesses to encourage them to prepare for new regulations coming in that required businesses to automatically enrol their employees into a pension scheme. However, before sending information on what businesses should do to prepare, TPR needed to know who within the business to send the information to. The first trial therefore focused on testing emails and letters to prompt businesses to nominate a specific contact.

Whilst only correlational, analysis from the trial indicated that businesses that nominated a contact to receive information were more likely to subsequently implement plans to comply with auto-enrolment. The trial also found that the most successful message variant was one that used an authoritative tone.

Normal tone	Authoritative tone
“Getting ready for automatic enrolment: your duties”	“ACT NOW: you have new legal duties”
“Provide a point of contact to receive these updates at: <a href="http://www.tpr.gov.uk/ae-contract">www.tpr.gov.uk/ae-contract</a> ”	“Nominate your contract by 4 July 2014”
“We have helpful email updates available for you, an additional member of staff or anyone else who will be involved in your preparations...”	“Ensure the correct person receives our communications to help you comply with the law”

Where this can be applied now

- **Communications with businesses:** When working to boost take-up and engagement with tax reliefs, loans, grants, business support, or compliance with regulations or codes of practice, consider professional bodies as well as government agencies to help target the right recipients. If it is unclear who the right recipient is, ask.



4.3 Sometimes, make it formal and official

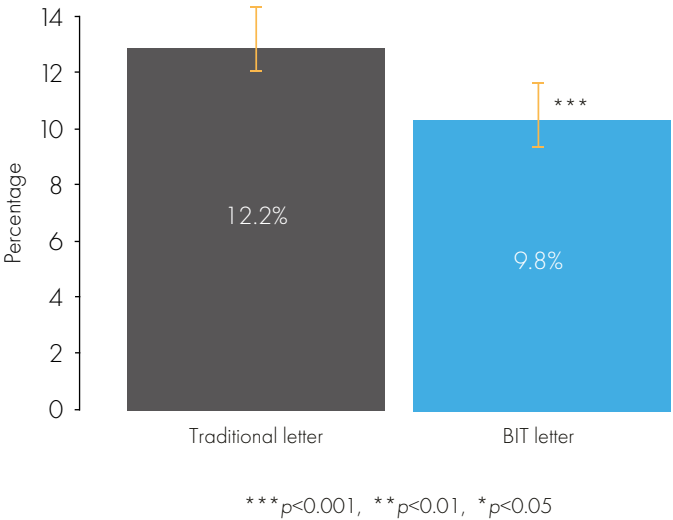
In some trials with businesses, we have found that an official look and formal tone can work best. More testing is needed to understand this effect, but existing trials indicate that this approach – for instance, using formal language and signals such as official logos – can be effective when the goal is voluntary compliance. We hypothesise that this is especially important when a communication is unexpected and where recipients may find it difficult to verify its legitimacy, as set out in Box 6.

Box 6: Encouraging businesses to self-certify

BIT worked with the City of Albuquerque in the US to encourage local, minority-owned and women-owned businesses to self-certify with the city. We tested two versions of a letter. One was relatively formal, traditional and official in tone (the control). The other used basic behavioural insights that had worked well in other trials: personalisation, a clear call to action and making things easy.

By the end of the 30-day trial period, businesses that received the traditional letter were 21.9 per cent more likely to register and 24.5 per cent more likely to visit the online form, compared to businesses that received the non-traditional letter (see Figure 3). This finding suggests a ‘formality effect’, where the format in which information is communicated conveys information about its validity and importance. A more formal format may be a quick proxy for readers to verify a letter is important and from an official source. We found a similar effect in our trial with TPR (see Box 5).

Figure 3: Percentage of business owners who clicked through to the registration form



Where this can be applied now

- **Communications with businesses:** If the primary goal is encouraging compliance, test an official approach. Initial trials indicate that this approach may be helpful in situations when the communication is unexpected and where recipients may have concerns about its legitimacy. However, take care not to inadvertently create other barriers to taking action – for instance, by making it difficult to understand what actions recipients need to take to comply.



## 5. Make it social

We are all influenced by what others say and do. Business decision-makers are influenced by the (perceived) actions of those around them, such as competitors,<sup>xi</sup> suppliers, professional contacts, family and friends.

### 5.1 Show that other businesses are performing the desired behaviour

When businesses see others adopting new technologies with success, they are more likely to do so themselves.<sup>xii</sup> But often they are overly pessimistic about the performance of other businesses in their sector,<sup>xiii</sup> which can reduce their incentive to take up new practices and technologies.

Policy-makers can prompt action by drawing attention to other businesses that are taking steps to improve, such as businesses investing in R&D or training, or bringing in new management practices. One note of caution is that policy-makers should take care not to reinforce negative norms by emphasising the prevalence of undesirable behaviour (for instance, highlighting that the majority of firms are not investing in R&D).<sup>xiii</sup>

This approach can be personalised by giving businesses feedback on their relative performance, such as through benchmarking tools that allow businesses to compare themselves against their peers.<sup>xiv</sup>

**Businesses often don't know what their competitors are doing**

**"I don't have the time or resource to do competitive analysis even though I know it is important."**

*Small business owner on their main competitors*



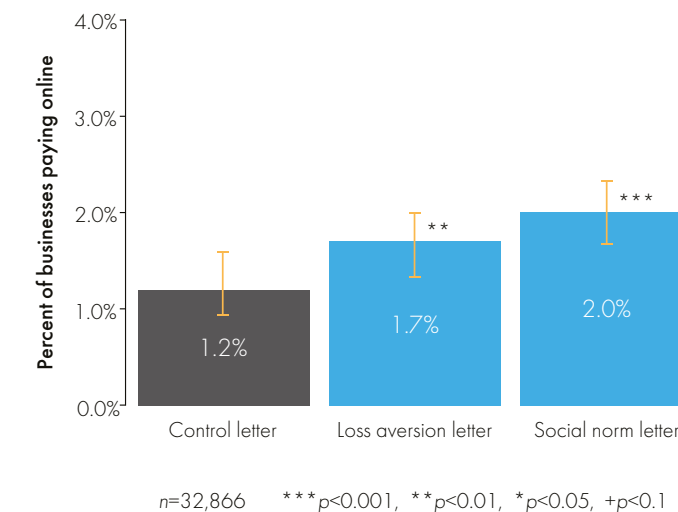
### Box 7: Encouraging businesses to use a tax portal

BIT worked with the City of Denver in the US to increase use of its business tax portal. We tested two versions of a letter against the original (control) letter:

- **Loss aversion:** reframing the initial communication to emphasise the time businesses lost when not filing online.
- **Social norms:** reframing the initial communication to emphasise that the majority of the businesses' peers already had an online account.

Whilst the 'loss aversion' communication improved usage of the tax portal compared to the control, the communication emphasising social norms performed best. It was twice as effective as the control letter in encouraging businesses to register and 67 per cent more effective in encouraging them to pay online (see Figure 4).

Figure 4: Percentage of businesses paying online



Social norms have also been found to be effective in a range of other contexts, including encouraging businesses to file their accounts on time.<sup>xlv</sup>

### Where this can be applied now

- **Communications with businesses:** In order to improve productivity and growth, or encourage compliance with regulations, codes of practice or good business practices, show businesses how other businesses are performing the desired behaviour.



## 5.2 Find the right messenger

When we receive information, we are influenced by who the sender is.<sup>xvi</sup> Firms value advice from experienced individuals, such as other business owners<sup>xvii</sup> and trusted professionals such as accountants.<sup>xviii</sup> Policymakers can work with trusted intermediaries – for example, business membership organisations, standards bodies, professional bodies and advisor networks – to disseminate key messages and promote awareness of important initiatives.<sup>xlix</sup>

### Where this can be applied now

- **Communications with businesses:** Work with trusted bodies to help promote tax reliefs, loans, grants or business support offers that are new or where take-up is low.



## 5.3 Leverage the power of personal and professional networks to enhance learning

Businesses get information about opportunities and ideas to improve performance from their networks and social connections. Businesses that are part of advisory networks are more likely to adopt productivity-boosting work practices such as formal inductions, training and performance appraisals.<sup>i</sup> Structured networking where businesses learn from each other can improve innovation and turnover (Box 8).

Policymakers should look for opportunities to improve business networks and leverage networks to enhance the reach and effectiveness of business support policies. In doing so, they should test what type of matching is most effective for learning, being careful not to match businesses in direct competition with each other.

**Trusted connections and networks are an importance source of information and advice**

**“I put a lot of trust in my [non-executive director], because he has been there and done it, and he has built his business from scratch.”**

Business owner on whom they trust for advice

### Box 8: Helping businesses to learn from each other

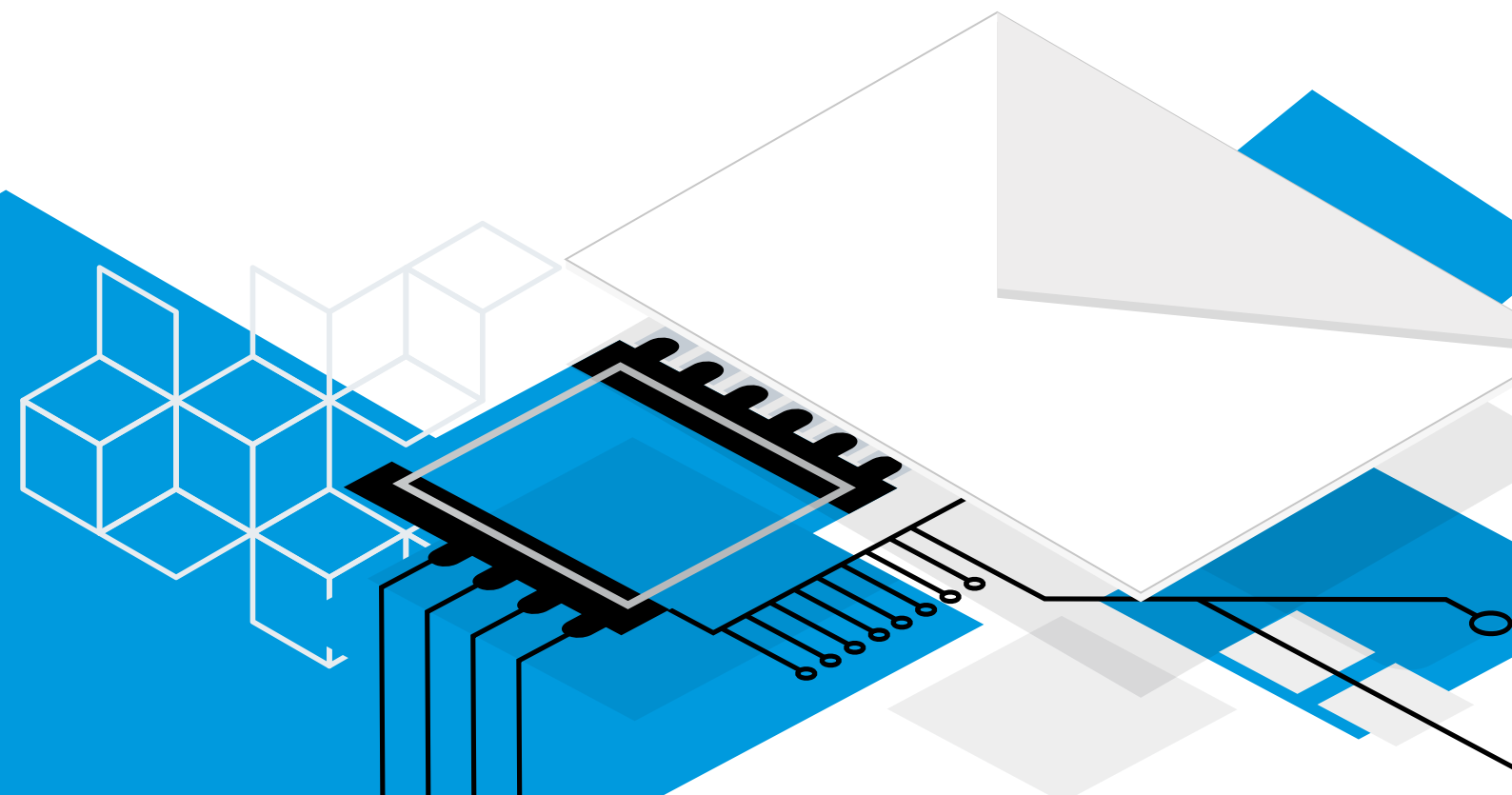
An RCT in China tested the effect of a year of monthly meetings with other businesses. During these meetings, SMEs received printed information and had structured discussions on borrowing, management, suppliers and clients, hiring, recent government policies and marketing.<sup>li</sup>

SMEs that were allocated to the meeting groups had 8.2 percentage point higher levels of innovation (measured as introduction of new products and/or services), and their revenues were 8.1 per cent higher one year later, compared to a control group. The impact of networking was due to two factors. Firstly, the firms shared useful information with each other, for instance on opportunities to save money or external opportunities. Secondly, regular meetings encouraged firms to develop new partnerships and collaborations. Studies of networking programmes in Belgium have also found positive effects on growth.<sup>lii</sup>

The authors of the study found that this approach compares well to similar interventions such as training, which often have modest and insignificant effects on performance. For instance, higher-performing interventions such as high-intensity management-consulting-style approaches deliver a 17 per cent increase in productivity but are much more expensive to deliver.<sup>liii</sup>

### Where this can be applied now

- **Designing new business programmes:** Where businesses are being offered loans, grants or structured business support, consider how networking programmes can help them make the most of the opportunities on offer. For instance, businesses that have been successful in applying for innovation loan programmes could be matched to each other to share experiences and learning on overcoming obstacles in implementing new innovations.





## 6. Make it timely

We often fail to follow through on our best intentions. Business managers may miss important financing opportunities, rush to meet tax return deadlines and struggle to find time to make long-term strategic decisions. A survey of members of a small business organisation found that only a third put money aside specifically for taxes.<sup>liv</sup>

Simple, timely prompts and reminders can be powerful and have been shown to work effectively in other contexts – for example, increasing charitable giving, organ donation rates and attendance at cancer screening appointments.<sup>lv</sup>

### 6.1 Help businesses to follow through on their goals

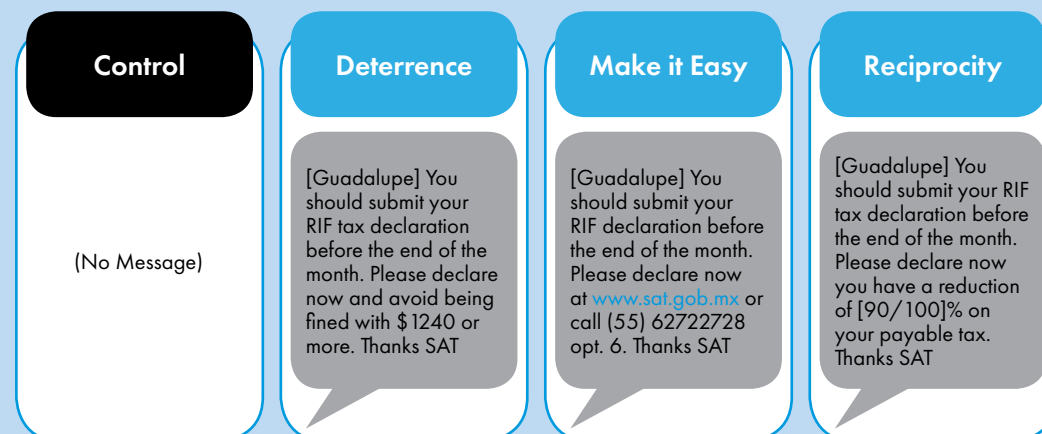
Reminders are a simple and often inexpensive tool that policymakers can use to prompt businesses about upcoming deadlines,<sup>lvi</sup> encourage them to apply for new programmes and spur them to complete applications (Box 9).

Even more effective are tools that prompt people to make specific, concrete plans to follow through on their intentions. Just encouraging people to write down the time and date of appointments increases attendance.<sup>lvii</sup> Encouraging people to think about the barriers to achieving goals and make plans to overcome them is more powerful still.<sup>lviii</sup>

#### Box 9: Encouraging businesses to pay taxes on time

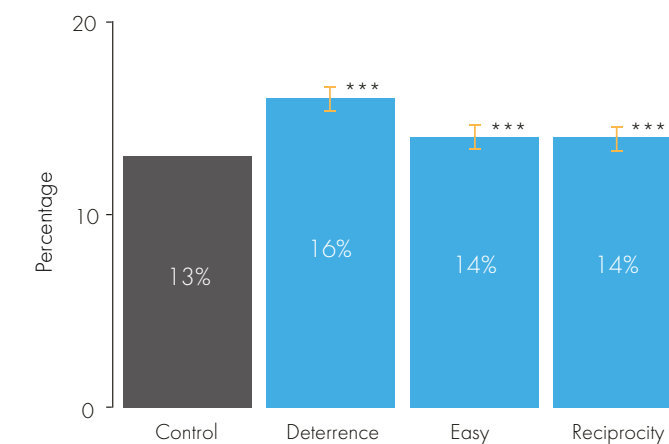
In 2014, BIT worked with the Inter-American Development Bank, the Mexican Ministry of Finance and the Mexican Tax Authority to encourage recently formalised businesses to declare their revenues on time and pay their taxes.

We trialled sending SMS text messages to businesses ahead of the tax deadline, using three variations of the message: 'deterrence' (which highlighted the fine for not declaring), 'easy' (which provided a web link and phone number) and 'reciprocity' (which highlighted subsidies from the government).



All the messages were effective, increasing the number of businesses paying on time. Messages cost 1.2 pesos to send and resulted in a 400 per cent return on investment. The most effective was the deterrence message, which resulted in a 19 per cent increase in the amount of tax paid compared to the control group (which received no reminders) (see Figure 5).<sup>lix</sup>

Figure 5: Percentage of businesses paying taxes on time



Total n=519,932 \*\*\*p<0.001, \*\*p<0.01, \*p<0.05  
Sample restricted to those assigned to paying taxes

#### Where this can be applied now

- Communications with businesses:** Use reminders to prompt businesses to apply for incentives such as tax reliefs, grants, loans or business support that require applications, and to prepare for deadlines to comply with new regulations.
- Communications follow-up with businesses:** Where significant action is required (e.g. filling in an application form), consider prompts such as 'tell us when you'll apply' to encourage managers to plan to follow through on their intentions.



## 6.2 Harness timely moments and moments of change

We respond differently to prompts depending on when we receive them. People are more likely to alter their habits during periods of transition or disruption: for example, during London tube strikes in 2014, 5 per cent of commuters discovered a better route to work as a result of the disruption.<sup>lx</sup>

Similarly, business decision-makers may be more receptive to external advice and implementing new strategies during periods of change and disruption.<sup>lxi</sup> One study that surveyed SMEs found over two-thirds agreed at least to some extent that crisis events had led to a change in the way they did things. More generally, businesses may be more likely to seek support alongside certain trigger events – for instance, changes in the supply chain, changes in a firm's leadership, regulatory change or involvement in R&D activities.<sup>lxii</sup> SMEs are most receptive to information on tax decisions when they first start up.<sup>lxiii</sup>

Policy-makers should experiment with timing and find moments – whether business-specific or economy- and sector-wide – that can be used as trigger points for positive change. Policy-makers and business support agencies should also consider how to leverage appropriate points in the business calendar (such as reporting and budgeting cycles) when decisions may be more open to change.

**Business owners may be more open to advice at key moments of change**

**“You don't just randomly do it, you only do it when you need it or foresee something.”**

**Business owner on when to get external business advice**

### Where this can be applied now

- **Communications with businesses:** Improve uptake of business support, incentives and specific new business behaviours by testing prompts at key moments, such as new company registration, change of director, taking on a new employee, moments of regulatory change, or specific times in the tax and budgeting cycle. Use periods of disruption as opportunities to encourage businesses to take positive action that goes beyond mitigating adverse consequences of change.



# 7. Conclusion: the next generation of behavioural interventions

The US and much of Western Europe have experienced historically low productivity growth in the years following the financial crisis.<sup>lxiv</sup> The debate over the causes of poor growth rages on: it could be that leading firms are under-performing or that the diffusion of new ideas across businesses is slowing down.<sup>lxv</sup>

As well as reinvigorating business growth, policymakers are looking for answers on how best to work with businesses to deal with society's big challenges, such as climate change, helping to fund public services and creating a fairer society.

Behavioural insights have an important role to play in designing good business policy. There have already been successes from early trials on how to prompt businesses to take up business support, prepare for new regulations and access new information. Lessons from these can be applied now: the practitioners' toolkit that accompanies this report offers a guide for practitioners and policymakers on how to do this.

There is room for these techniques to be refined via further testing and trialling. Behavioural barriers and motivations differ across businesses, from family-run firms to lifestyle businesses to start-ups to large corporations, but there is little evidence on what works in practice for policymakers wanting to tailor their nudges to different types of firm. There is great unexploited potential for governments to make use of the wealth of administrative data they hold to better tailor prompts so that they reach the right businesses at the right time. Finally, more testing can illuminate what works best in different contexts, from situations where compliance is the main objective to ones where take-up of support is the goal.

## From first generation to next generation

These 'first-generation' behavioural interventions largely focus on improving communications such as targeted emails and letters, or improving content and design of websites. These interventions nudge businesses one at a time and have proved very cost-effective.

However, these types of nudge are not always sufficient to shift long-standing, entrenched behaviours, especially when successful behaviour change requires action from not just one business but also other businesses in the wider marketplace. For instance, BIT's work with Companies House has found that shifting more firms towards online filing requires tackling barriers faced by both businesses themselves and their accountants.<sup>lxvi</sup>

The next generation of behavioural interventions should take on more challenging market-wide problems. Box 10 sets out two examples of market-wide interventions that shift behaviour: gender pay gap reporting and the sugar tax. These types of intervention change the underlying dynamic of the market, powerfully shifting business incentives.

**Box 10: Market-wide interventions****Gender pay gap reporting**

Countries including Denmark, France, Germany, and the UK require businesses to publish statistics on wages distinguishing between male and female employees. Transparency can have a powerful effect, giving businesses strong incentives to improve their gender pay gaps to attract and retain workers and avoid reputational damage. A study of the Danish experience shows that transparency reduced gender pay gaps, especially for businesses with good governance and where gender pay gaps were initially high. However, to be effective, transparency needs to be designed well – for example, data needs to be simple and easy to understand and use.<sup>bxvii, bxviii, bxix</sup>

**Sugar tax**

The UK introduced a levy on sugary drinks in 2018. The tax is an example of how good design can improve the effectiveness of economic incentives.

Getting consumers to change their shopping habits is difficult. Instead, encouraging food producers to reformulate their products can have a much bigger impact on sugar consumption. The design of the sugar tax creates strong incentives to manufacturers to reformulate their products as higher-sugar drinks attract a higher rate of tax, and the two-year lead-in to the tax gave producers time to adjust their ingredients. Early data indicated that the tax led to around 15 per cent of the market reformulating their products before the levy even came into force.<sup>box</sup>

Below, we set out three new frontiers that go beyond nudge-by-nudge interventions: improving business service markets, improving diffusion through better networks and incorporating behavioural insights into the design of mainstream economic policies.

**1. Improving business service markets**

Working out how to expand market share, invest in new products, make efficiency savings or start exporting is hard. Successful exporting requires a business to identify a suitable overseas market, develop a marketing strategy, translate relevant product and service information, organise transport, set up secure payment channels, and ensure compliance with regulation and taxes. Just providing information and advice on how to accomplish these tasks often isn't enough.<sup>boxi</sup>

**Lack of information on quality of advice in the market**

**“You don't know if they are full of hot air or will deliver.”**

**Small business owner on working with business advisors**

For many businesses, the easiest approach can be to work with other businesses that can take away the hassle. Online marketplaces and overseas distributors can directly connect businesses to customers. Logistics companies can take care of delivery. Business advisors can help businesses to work out the best growth strategy for them.

But many business-to-business markets do not work well. Businesses can find it difficult to find the right accountant, lawyer, training provider, overseas distributor or logistics company. Little information is available on prices, quality or service offerings across different providers. This holds back productivity in three ways. Firstly, there is little incentive for suppliers to compete on providing better value for money and higher-quality services. Secondly, as suppliers cannot easily compare themselves to their competitors, they do not know how their offerings can be improved. Thirdly, it slows down business growth across the wider economy, as businesses find it hard to get into new exporting markets, understand how to improve their business practices or invest in innovation.

Studies in other markets show that making it easy to compare providers changes market dynamics, often in favour of new, innovative entrants. For instance, an increase of just one star in Yelp ratings leads to a 5–9 per cent increase in restaurant revenues, with most of the benefits going to independent outlets over chains.<sup>boxii</sup>

Policymakers should find ways to make it easier for businesses to navigate markets and find the best supplier for their needs. This could include developing or kickstarting online databases, navigation tools and comparison sites, and, where available, releasing data that can inform the wider market.

**2. Improving diffusion through better networks**

Global league tables put the UK near the top for innovation. However, it languishes behind other countries for levels of diffusion of new knowledge across the economy.<sup>boxiii</sup>

Networks are integral to diffusion. As outlined in Box 8, a trial in China found that SMEs that took part in structured monthly meetings had 8.2 percentage points higher levels of innovation and 8.1 per cent higher revenues a year later.<sup>boxiv</sup> The businesses shared useful information with each other on how to reduce costs and find external finance. Regular meetings also encouraged the firms to develop new partnerships and collaborations. Other studies also find that networks support innovation and growth.<sup>boxv</sup> Often, these types of intervention compare well in their cost-effectiveness to other programmes, such as high-intensity consulting.

However, face-to-face networks are still relatively intensive to offer and require business managers to take time out of their day to attend. Businesses in less well-connected regions of the country are likely to have fewer opportunities to attend. By contrast, existing low-cost networking facilities – such as social media platforms – do not provide the same level of structure and do not facilitate the prompting of repeated interactions required to make peer-to-peer learning as effective as possible.

Policymakers should test and evaluate new, structured, lower-cost approaches to improving and leveraging business networks, building on evidence from other policy areas. For instance, BIT found that actively matching new sixth form students to mentor buddies via an online text-based platform and prompting structured conversations between them reduced first-term dropout by 30 per cent.<sup>boxvi</sup>

These new interventions should bring in businesses that are not typically part of existing traditional membership organisations, whilst being careful to avoid the risk of bringing directly competing businesses together. Programme designers should test structured digital offerings to complement existing face-to-face networks and new business support programmes.

**3. Incorporating behavioural insights into the design of mainstream economic policies**

To date, behavioural interventions have often been used to improve engagement with traditional economic policies – for instance, boosting take-up of financial incentives or encouraging businesses to comply with regulation.

Upfront costs and effort can be a substantial barrier to investment

“Some of the projects take years before they actually do anything in terms of tangible outcomes.”

Small business owner on investment in R&D

However, a good understanding of business motivations and barriers can improve the design, not just the communication, of these policies. For instance, business tax reliefs cost billions – UK R&D tax reliefs cost £3.6bn per year.<sup>boxvii</sup> But these reliefs often are not factored into key decisions about whether to invest or grow a business, largely because they do not precisely target underlying barriers such as upfront costs.<sup>boxviii</sup> Upfront costs pose a structural barrier, especially when coupled with poor access to finance, and are exacerbated by our tendency to be overly influenced by immediate, tangible costs compared to more abstract, longer-term benefits.<sup>boxix</sup> In this context, future tax relief payments are less likely to be effective.

Policymakers should also factor in how communication itself can be used as a market-wide policy tool, following approaches used by central banks, where there is rich evidence on how different approaches to communicating central bank statements can shift financial markets (see Table 2).<sup>boxx</sup>

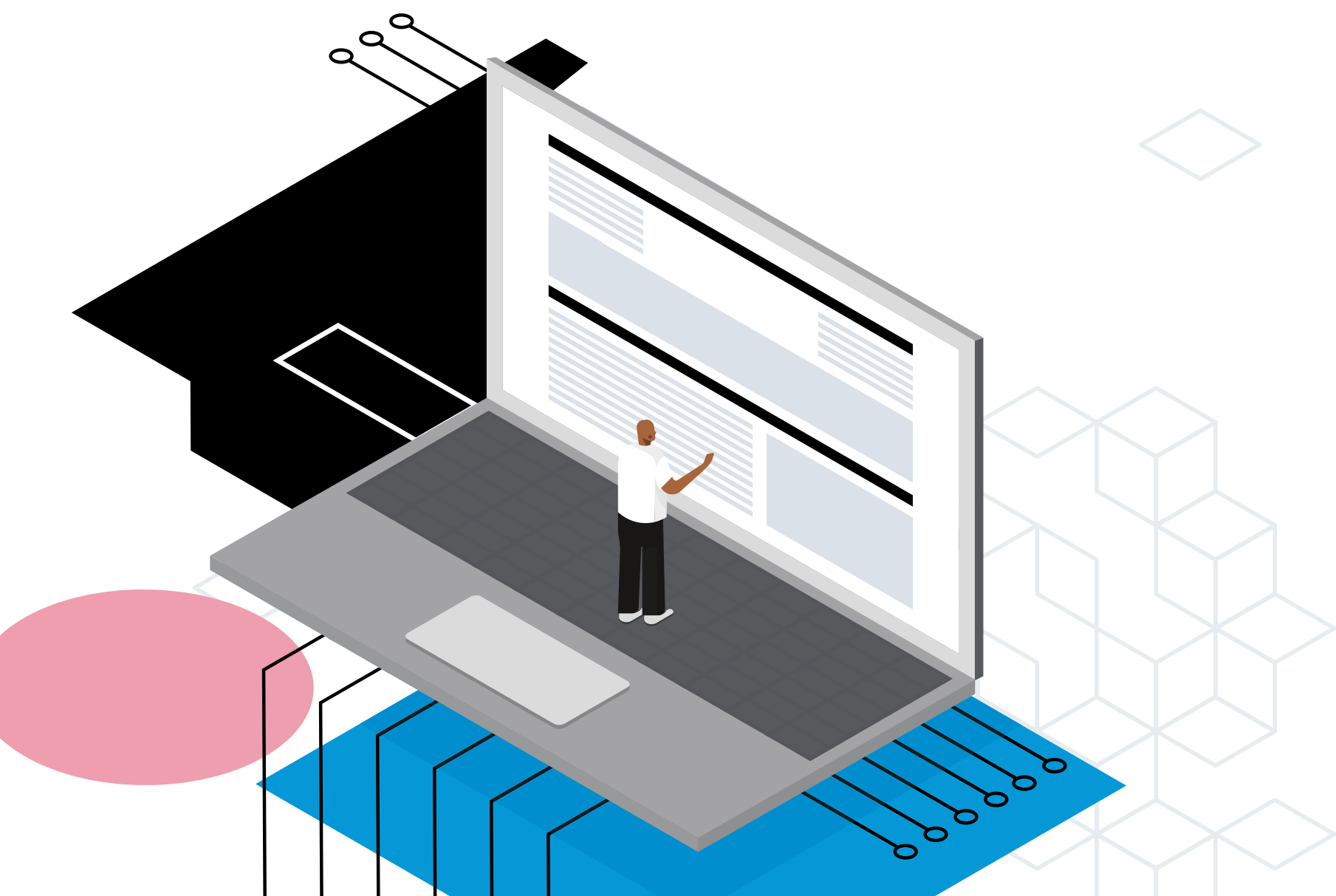


Table 2: New frontiers: applying behavioural insights to the design of business policy

	Detail	Examples
Improve business service markets	Improve business service markets by making it easy for businesses to find the right advisors, suppliers and service providers for them	<ul style="list-style-type: none"><li>• Develop or kickstart freely available online databases and navigation tools for suppliers in key markets for businesses, such as export distributors and customs brokers.</li><li>• Kickstart comparison and feedback sites to help businesses find the best advisors, accountants, training providers, consultants and logistics companies for them.</li><li>• Collate and release public sector data that can inform the wider market – for example, on the quality of service of training providers used by the public sector.</li></ul>
Improve diffusion through better networks	Test low-cost, structured approaches to improving business networks, helping businesses to learn from each other	<ul style="list-style-type: none"><li>• Improving existing face-to-face networks: existing business networks can test complementing traditional offers with low-cost, structured digital offers.</li><li>• Designing new programmes: where businesses are being offered loans, grants or structured business support, consider testing low-cost, structured networking approaches alongside these offers to help businesses learn from each other and make the most of opportunities.</li></ul>
Incorporate behavioural insights into the design of mainstream economic policies	Incorporate behavioural insights right from the start of the policy process, designing incentives for businesses that tap into key business motivations and address key behavioural barriers	<ul style="list-style-type: none"><li>• Test designing upfront rewards into tax reliefs for businesses (e.g. by expanding advance assurance schemes that offer certainty over ability to make future claims against current spending) and timely prompts to reinvest proceeds of reliefs.</li><li>• Build on rich evidence from central banking to incorporate and test communications as a market-wide policy tool in their own right.</li></ul>

Concluding thoughts

Incorporating a behavioural approach into business policy is not about abandoning traditional approaches but instead about designing them in such a way as to increase their impact and cost-effectiveness. A recent estimate suggests that if the UK’s least productive firms raised their productivity to the level of their German equivalents, it would be worth over £100bn to the UK economy.<sup>boxxi</sup> Making this happen requires designing, testing and trialling new ways of doing business policy.



# Endnotes

i Schneider, P. (2018, 29 March). The UK's productivity puzzle is in the top tail of the distribution. Bank Underground. Retrieved 5 August 2019 from <https://bankunderground.co.uk/2018/03/29/the-uks-productivity-puzzle-is-in-the-top-tail-of-the-distribution>; Swinney, P. (2018). The wrong tail. Centre for Cities. Retrieved 5 August 2019 from <https://www.centreforcities.org/wp-content/uploads/2018/05/2018-06-05-The-wrong-tail.pdf>; Haldane, A. (2018, 28 June). The UK's productivity problem: Hub no spokes. Speech at the Academy of Social Sciences. Retrieved 5 August 2019 from <https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/the-uks-productivity-problem-hub-no-spokes-speech-by-andy-haldane>.

ii Remes, J., Manyika, J., Bughin, J., Woetzel, J., Mischke, J., & Krishnan, M. (2018). Solving the productivity puzzle. McKinsey & Company. Retrieved 5 August 2019 from <https://www.mckinsey.com/featured-insights/regions-in-focus/solving-the-productivity-puzzle>.

iii Be the Business. (2019). Raising UK competitiveness: Inside the mindsets of leaders of firms. Retrieved 5 August 2019 from <https://www.bethebusiness.com/wp-content/uploads/2019/03/Raising-UK-Competitiveness.pdf>; Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. Journal of Business Venturing, 12(1), 9–30; Department for Business, Energy & Industrial Strategy. (2016). Business growth ambitions amongst SME leaders: Changes over time and links to growth. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/552513/beis-16-17-growth-ambition-report-2016.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/552513/beis-16-17-growth-ambition-report-2016.pdf); Harrison, E. F., & Pelletier, M. A. (1997). Managerial attitudes towards strategic decisions: Maximizing versus satisficing outcomes. Management Decision, 35(5), 358–364; Sadun, R., Bloom, N., & Reenen, J. V. (2017). Why do we undervalue competent management? Harvard Business Review, Sept.–Oct., 120–127.

iv HM Government. (2016). ORGANISER: A behavioural approach for influencing organisations. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/508516/6\\_1906\\_DECC\\_Organiser\\_document\\_proof\\_150316\\_v8b.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/508516/6_1906_DECC_Organiser_document_proof_150316_v8b.pdf).

v Behavioural Insights Team. (2016). Behavioral insights for cities. Retrieved 5 August 2019 from <https://www.bi.team/wp-content/uploads/2016/10/Behavioral-Insights-for-Cities-2.pdf>; Rosenkranz, S., Vringer, K., Dirkmaat, T., van den Broek, E., Abeelen, C., & Travaille, A. (2017). Using behavioral insights to make firms more energy efficient: A field experiment on the effects of improved communication. Energy Policy, 108, 184–193. doi:10.1016/j.enpol.2017.05.056.

vi Luca, M. (2011/2016). Reviews, reputation, and revenue: The case of Yelp.com [Working Paper 12-016]. Harvard Business School. Retrieved 5 August 2019 from [https://www.hbs.edu/faculty/Publication%20Files/12-016\\_a7e4a5a2-03f9-490d-b093-8f951238dba2.pdf](https://www.hbs.edu/faculty/Publication%20Files/12-016_a7e4a5a2-03f9-490d-b093-8f951238dba2.pdf).

vii Cai, J., & Szeidl, A. (2017). Interfirm relationships and business performance. Quarterly Journal of Economics, 133(3), 1229–1282.

viii Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., & Roberts J. (2013). Does management matter? Evidence from India. Quarterly Journal of Economics, 128, 1–51.

ix HM Revenue & Customs. (2019). Estimated costs of principal tax reliefs. Retrieved 5 August 2019 from <https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs>.

x See, for example, Ehrmann, M., & Talmi, J. (2017). Starting from a blank page? Semantic similarity in central bank communication and market volatility (Working Paper 2023). European Central Bank. Retrieved 5 August 2019 from <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp2023.en.pdf?5617f126fea2285effb36dae431188d1>; Bulir, A., Cihák, M., & Jansen, D.-J. (2014). Does the clarity of inflation reports affect volatility in financial markets? (Working Paper 14/175). International Monetary Fund. Retrieved 5 August 2019 <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Does-the-Clarity-of-Inflation-Reports-Affect-Volatility-in-Financial-Markets-42361>.

xi CBI. (2017). From ostrich to magpie. Retrieved 5 August 2019 from <https://cbicdnend.azureedge.net/media/1165/cbi-from-ostrich-to-magpie.pdf?v=20190801.2>.

xii Office for National Statistics. (2017). International comparisons of UK productivity (ICP), final estimates: 2015. Retrieved 5 August 2019 from <https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinal estimates/2015>.

xiii National Audit Office. (2014). The effective management of tax reliefs. Retrieved 5 August 2019 from <https://www.nao.org.uk/wp-content/uploads/2014/11/Effective-management-of-tax-reliefs.pdf>.

xiv IFF Research. (2015). Capital gains tax relief: Research on entrepreneurs' relief and business asset rollover relief. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/444995/Research\\_report\\_367\\_Capital\\_Gains\\_Tax\\_Relief\\_Research\\_on\\_Entrepreneurs\\_Relief\\_and\\_Business\\_Asset\\_Rollover\\_Relief.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/444995/Research_report_367_Capital_Gains_Tax_Relief_Research_on_Entrepreneurs_Relief_and_Business_Asset_Rollover_Relief.pdf).

xv Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. Journal of Business Venturing, 12(1), 9–30; Harrison, E. F., & Pelletier, M. A. (1997). Managerial attitudes towards strategic decisions: Maximizing versus satisficing outcomes. Management Decision, 35(5), 358–364; Tazhitdinova, A. (2018). Income shifting and the cost of incorporation. Retrieved 5 August 2019 from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2902834](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2902834).

xvi Department for Business, Energy & Industrial Strategy. (2016). Business growth ambitions amongst SME leaders: Changes over time and links to growth. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/552513/beis-16-17-growth-ambition-report-2016.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/552513/beis-16-17-growth-ambition-report-2016.pdf).

xvii Be the Business. (2019). Raising UK competitiveness: Inside the mindsets of leaders of firms. Retrieved 5 August 2019 from <https://www.bethebusiness.com/wp-content/uploads/2019/03/Raising-UK-Competitiveness.pdf>; Sadun, R., Bloom, N., & Reenen, J. V. (2017). Why do we undervalue competent management? Harvard Business Review, Sept.–Oct., 120–127.

xviii Breinlich, H., Donaldson, D., Nolen, P. J., & Wright, G. C. (2017). Information, perceptions and exporting: Evidence from a randomized controlled trial (Working Paper). Colchester, UK: Department of Economics, University of Essex.

xix BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming).

xx Sanderg, S. (2015, 29 June). Sheryl Sandberg to grads: Fortune favors the bold. Time. Retrieved 5 August 2019 from <https://time.com/3939800/sheryl-sandberg-graduation-speech-tsinghua>; Sunstein, C. R., & Hastie, R. (2015). Wiser: Getting beyond groupthink to make groups smarter. Cambridge, MA: Harvard Business Press.

xxi Baron, R. S., Hoppe, S. I., Kao, C. F., Brunsman, B., Linneweh, B., & Rogers, D. (1996). Social corroboration and opinion extremity. Journal of Experimental Social Psychology, 32(6), 537–560; Turner, J. C., Vvetherell, M. S., & Hogg, M. A. (1989). Referent informational influence and group polarization. British Journal of Social Psychology, 28(2), 135–147.

xxii HM Government. (2016). ORGANISER: A behavioural approach for influencing organisations. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/508516/6\\_1906\\_DECC\\_Organiser\\_document\\_proof\\_150316\\_v8b.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/508516/6_1906_DECC_Organiser_document_proof_150316_v8b.pdf).

xxiii For example, Bholat, D., Broughton, N., Parker, A., Ter Meer, J., & Walczak, E. (2018). Enhancing central bank communications with behavioural insights (Staff Working Paper 750). Behavioural Insights Team & Bank of England. Retrieved 5 August 2019 from <https://www.bankofengland.co.uk/working-paper/2018/enhancing-central-bank-communications-with-behavioural-insights>.

xxiv BIT's EAST framework is a tool for policymakers that argues that if you want to encourage a certain behaviour then you need to make your intervention Easy, Attractive, Social and Timely. Service, O., Hallsworth, M., Halpern, D., Algate, F., Gallagher, R., Nguyen, S., ... Sanders, M. (2014). EAST: Four simple ways to apply behavioural insights. Behavioural Insights Team. Retrieved 5 August 2019 from [https://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT-Publication-EAST\\_FA\\_WEB.pdf](https://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf).

xxv Fiske, S. T., & Taylor, S. E. (1991). Social cognition (2nd ed.). New York, NY: McGraw-Hill; HM Government. (2016). ORGANISER: A behavioural approach for influencing organisations. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/508516/6\\_1906\\_DECC\\_Organiser\\_document\\_proof\\_150316\\_v8b.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/508516/6_1906_DECC_Organiser_document_proof_150316_v8b.pdf), p. 82.

xxvi BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming); Bradford, B. L., Chavasa, J., Fitz, D., & Schechter, L. (2018). Receptiveness to advice, cognitive ability, and technology adoption. Journal of Economic Behavior & Organization, 149, 239–268; Laamanen, T., Maulab, M., Kajantob, M., & Kunnasc, P. (2018). The role of cognitive load in effective strategic issue management. Long Range Planning, 51(4), 625–639.

xxvii Kahneman, D. (2003). Maps of bounded rationality: Psychology for behavioral economics. American Economic Review, 93, 1449–1475.

xxviii BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming).

xxix Gobet, F., Lane, P., Croker, S., Cheng, P., Jones, G., Oliver, I., & Pine, J. (2001). Chunking mechanisms in human learning. TRENDS in Cognitive Sciences, 5(6), 236–243.

xxx BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming).

xxxi Companies House Developer Hub. (n.d.). Companies House API. Retrieved 5 August 2019 from <https://developer.companieshouse.gov.uk/api/docs/index.html>.

xxxii Bettinger, E. P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. Quarterly Journal of Economics, 127(3), 1205–1242; Dohrmann, T., & Pinshaw, G. (2009). The road to improved compliance: A McKinsey benchmarking study of tax administrations 2008–2009. McKinsey & Company. Retrieved 5 August 2019 from [https://www.mckinsey.com/~media/mckinsey/dotcom/client\\_service/public%20sector/pdfs/road\\_improved\\_compliance.ashx](https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/public%20sector/pdfs/road_improved_compliance.ashx).

xxxiii Rosenkranz, S., Vringer, K., Dirkmaat, T., van den Broek, E., Abeelen, C., & Travaille, A. (2017). Using behavioral insights to make firms more energy efficient: A field experiment on the effects of improved communication. Energy Policy, 108, 184–193. doi:10.1016/j.enpol.2017.05.056.

xxxiv Kahneman, D. (2011). Thinking, fast and slow. New York, NY: Farrar, Strauss, Giroux, p. 324.

xxxv For example, Hannah, R., Mullainathan, S., & Schwartzstein, J. (2014). Learning through noticing: Theory and evidence from a field experiment. Quarterly Journal of Economics, 129(3), 1311–1353.

xxxvi BIT research for BEIS on business advice (forthcoming).

xxxvii Algate, F. (2015, 7 August). 'You have been selected': Driving uptake of government schemes. Behavioural Insights Team Blog. Retrieved 5 August 2019 from <http://www.behaviouralinsights.co.uk/trial-results/you-have-been-selected-driving-uptake-of-government-schemes>.

xxxviii Algate, F. (2015, 7 August). 'You have been selected': Driving uptake of government schemes. Behavioural Insights Team Blog. Retrieved 5 August 2019 from <http://www.behaviouralinsights.co.uk/trial-results/you-have-been-selected-driving-uptake-of-government-schemes>.

xxxix HM Government. (2016). ORGANISER: A behavioural approach for influencing organisations. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/508516/6\\_1906\\_DECC\\_Organiser\\_document\\_proof\\_150316\\_v8b.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/508516/6_1906_DECC_Organiser_document_proof_150316_v8b.pdf); Sonderegger, S., Wilson, S., & Buzzee, J. (2016). Understanding the behavioural drivers of organisational decision-making. Rapid Evidence Assessment. Retrieved 5 August 2019 from <https://www.employment-studies.co.uk/resource/understanding-behavioural-drivers-organisational-decision-making>.

xl HM Government. (2016). ORGANISER: A behavioural approach for influencing organisations. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/508516/6\\_1906\\_DECC\\_Organiser\\_document\\_proof\\_150316\\_v8b.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/508516/6_1906_DECC_Organiser_document_proof_150316_v8b.pdf).

xli Conley, T. G., & Udry, C. R. (2010). Learning about a new technology: Pineapple in Ghana. American Economic Review, 100(1), 35–69; Syverson, C. (2011). What determines productivity? Journal of Economic Literature, 49(2), 326–365.

xliv BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming).

xlvi Existing examples include an online tool from Innovation, Science and Economic Development Canada that allows small businesses to compare themselves against others in their industry (<https://www.ic.gc.ca/app/sme-pme/bnchmrkngit/rprt-flw.pub?execution=1s1>); an app from the Australian Tax Office that allows businesses to undertake a 'business performance check' based on tax data (<https://www.ato.gov.au/Business/Small-business-benchmarks>); and the UK Office for National Statistics' 'How Productive Is Your Business?' tool (<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/howproductiveisyourbusiness/2018-07-06>).

xlvi Behavioural Insights Team. (2016). Behavioral insights for cities. Retrieved 5 August 2019 from <https://www.bi.team/wp-content/uploads/2016/10/Behavioral-Insights-for-Cities-2.pdf>; Behavioural Insights Team & Companies House. (2019). Increasing uptake of digital services at Companies House. Retrieved 5 August 2019 from [https://www.bi.team/wp-content/uploads/2019/07/20190702\\_-Companies-House-Trial-Report\\_vfinal.pdf](https://www.bi.team/wp-content/uploads/2019/07/20190702_-Companies-House-Trial-Report_vfinal.pdf).

xlvi Cialdini, R. B. (2007). *Influence: The psychology of persuasion* (rev. ed.). New York, NY: HarperBusiness; Dolan, P., Hallsworth, M., Halpern, D., King, D., & Vlaev, I. (2010). *MINDSPACE: Influencing behaviour for public policy*. London, UK: Institute for Government; Iyengar, S., & Valentino, N. A. (2000). Who says what? Source credibility as a mediator of campaign advertising. In A. Lupia (Ed.), *Elements of reason: Cognition, choice and the bounds of rationality* (pp. 108–129). Cambridge, UK: Cambridge University Press; BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming).

xlvi BenYishay, A., & Mobarak, A. M. (2018). Social learning and incentives for experimentation and communication. *Review of Economic Studies*, 86(3), 976–1009.

lxviii BIT research for BEIS on business advice (forthcoming).

lxix BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming).

l Beaman, L., BenYishay, A., Magruder, J., & Mobarak, A. M. (2018). Can network theory-based targeting increase technology adoption? (Working Paper 24912). National Bureau of Economic Research. Retrieved 5 August 2019 from <https://www.nber.org/papers/w24912>; Wu, N., Bacon, N., & Hoque, K. (2014). The adoption of high performance work practices in small businesses: The influence of markets, business characteristics and HR expertise. *International Journal of Human Resource Management*, 25(8), 1149–1169.

li Cai, J., & Szeidl, A. (2017). Interfirm relationships and business performance. *Quarterly Journal of Economics*, 133(3), 1229–1282.

lii Schoonjans, B., Van Cauwenberge, P., & Vander Bauwhede, H. (2013). Knowledge networking and growth in service firms. *Service Industries Journal*, 33(11), 1051–1067; Van Cauwenberge, P., Bauwhede, H. V., & Schoonjans, B. (2013). An evaluation of public spending: The effectiveness of a government-supported networking program in Flanders. *Environment and Planning C: Government and Policy*, 31(1), 24–38.

liii Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., & Roberts J. (2013). Does management matter? Evidence from India. *Quarterly Journal of Economics*, 128, 1–51.

liv Nye, L., & Baron, T. (2018). Taxing times: Routes to reform for small businesses as taxpayers. Financial Services Bureau. Retrieved 5 August 2019 from <https://www.fsb.org.uk/docs/default-source/fsb-org-uk/fsb-tax-report--taxing-times-final.pdf?sfvrsn=0>.

lv Behavioural Insights Team. (2013). Applying behavioural insights to organ donation: Preliminary results from a randomised controlled trial. London, UK: Cabinet Office; Hof, G., & Bretthauer, M. (2008). Appointments timed in proximity to annual milestones and compliance with screening: Randomised controlled trial. *BMJ*, 337, a2794. Sanders, M., (2017). Social influences on charitable giving in the workplace. *Journal of Behavioural and Experimental Economics* 66 (129-136)

lvi For example, Gillitzer, C., & Sinning, M. (2018). Nudging businesses to pay their taxes: Does timing matter? (Discussion Paper 11599). Institute for the Study of Labor. Retrieved 5 August 2019 from <http://ftp.iza.org/dp11599.pdf>.

lvii Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2011). Using implementation intentions prompts to enhance influenza vaccination rates. *Proceedings of the National Academy of Sciences*, 108(26), 10415–10420; Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2012). Following through on good intentions: The power of planning prompts (Working Paper 17995). National Bureau of Economic Research. Retrieved 5 August 2019 from <https://www.nber.org/papers/w17995>.

lviii Implementation intentions have been shown to increase the healthiness of eating: Verplanken, B., & Faes, S. (1999). Good intentions, bad habits, and effects of forming implementation intentions on healthy eating. *European Journal of Social Psychology*, 29(5/6), 591–604.

lix Behavioural Insights Team (2017) The Behavioural Insights Team Update Report 2016-17.

lx Larcom, S., Rauch, F., & Willems, T. (2017). The benefits of forced experimentation: Striking evidence from the London Underground network. *Quarterly Journal of Economics*, 132(4), 2019–2055.

lxi Crisis events are taken to refer to developmental crises in a firm's or entrepreneur's journey rather than, for example, an economy-wide crisis specifically; however, it is likely that similar lessons apply. Mole, K. (2016). (Seeking, acting on and appreciating) the value of business advice (Paper 44). Enterprise Research Centre. Retrieved 5 August 2019 from <https://www.enterpriseresearch.ac.uk/wp-content/uploads/2016/05/ERC-ResPap44-KMole.pdf>; Saunders, M. N. K., Gray, D. E., & Goregaokar, H. (2014). SME innovation and learning: The role of networks and crisis events. *European Journal of Training and Development*, 38(1/2), 136–149.

lxii HM Government. (2016). ORGANISER: A behavioural approach for influencing organisations. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/508516/6\\_1906\\_DECC\\_Organiser\\_document\\_proof\\_150316\\_v8b.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/508516/6_1906_DECC_Organiser_document_proof_150316_v8b.pdf); Johnson, S., Webber, D. J., & Thomas, W. (2007). Which SMEs use external business advice? A multivariate subregional study. *Environment and Planning A: Economy and Space*, 39(8), 1981–1997; Mole, K. (2016). (Seeking, acting on and appreciating) the value of business advice (Paper 44). Enterprise Research Centre. Retrieved 5 August 2019 from <https://www.enterpriseresearch.ac.uk/wp-content/uploads/2016/05/ERC-ResPap44-KMole.pdf>; North, D., Baldock, R., Mole, K., Wiseman, J., & Binnie, C. (2011). Research to understand the barriers to take-up and use of business support. London, UK: Department for Business, Innovation and Skills; Saunders, M. N. K., Gray, D. E., & Goregaokar, H. (2014). SME innovation and learning: The role of networks and crisis events. *European Journal of Training and Development*, 38(1/2), 136–149; Sonderegger, S., Wilson, S., & Buzzeeo, J. (2016). Understanding the behavioural drivers of organisational decision-making. Rapid Evidence Assessment. Retrieved 5 August 2019 from <https://www.employment-studies.co.uk/resource/understanding-behavioural-drivers-organisational-decision-making>.

lxiii HM Revenue & Customs. (2015). Small business and choice (Research Report 377). Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/444770/HMRC\\_ResearchReport377-small-business-and-choice.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/444770/HMRC_ResearchReport377-small-business-and-choice.pdf).

lxiv Remes, J., Manyika, J., Bughin, J., Woetzel, J., Mischke, J., & Krishnan, M. (2018). Solving the productivity puzzle. McKinsey & Company. Retrieved 5 August 2019 from <https://www.mckinsey.com/featured-insights/regions-in-focus/solving-the-productivity-puzzle>.

lxv Haldane, A. (2018, 28 June). The UK's productivity problem: Hub no spokes. Speech at the Academy of Social Sciences. Retrieved 5 August 2019 from <https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/the-uks-productivity-problem-hub-no-spokes-speech-by-andy-haldane>; Schneider, P. (2018, March 29). The UK's productivity puzzle is in the top tail of the distribution. Bank Underground. Retrieved 5 August 2019 from <https://bankunderground.co.uk/2018/03/29/the-uks-productivity-puzzle-is-in-the-top-tail-of-the-distribution>; Swinney P. (2018). Centre for Cities. Retrieved 5 August 2019 from <https://www.centreforcities.org/wp-content/uploads/2018/05/2018-06-05-The-wrong-tail.pdf>.

lxvi Behavioural Insights Team & Companies House. (2019). Increasing uptake of digital services at Companies House. Retrieved 5 August 2019 from [https://www.bi.team/wp-content/uploads/2019/07/20190702\\_-Companies-House-Trial-Report\\_vfinal.pdf](https://www.bi.team/wp-content/uploads/2019/07/20190702_-Companies-House-Trial-Report_vfinal.pdf).

lxvii Bennedsen, M., Slimintzi, E., Tsoutsoura, M., & Wolfenzon, D. (2019, 23 January). Gender pay gaps shrink when companies are required to disclose them. Harvard Business Review. Retrieved 6 August 2019 from <https://hbr.org/2019/01/research-gender-pay-gaps-shrink-when-companies-are-required-to-disclose-them>.

lxviii Behavioural Insights Team. (2018, 8 March). What employers should do about their gender pay gaps. Behavioural Insights Team Blog. Retrieved 5 August 2019 from <https://www.bi.team/blogs/what-employers-should-do-about-their-gender-pay-gaps>

lxix Loewenstein, G., Sunstein, C. R., & Golman, R. (2014). Disclosure: Psychology changes everything. *Annual Review of Economics*, 6, 391–419.

lxx Behavioural Insights Team. (2016, 18 March). Sugar tax: How will it affect behaviour? Behavioural Insights Team Blog. Retrieved 5 August 2019 from <https://www.bi.team/blogs/behaviour-change-and-the-new-sugar-tax>; Behavioural Insights Team. (2018, 6 April). Sugaring the bill: Why lower revenue from the sugar tax is probably a good thing. Behavioural Insights Team Blog. <https://www.bi.team/blogs/sugaring-the-bill-why-lower-revenue-from-the-sugar-tax-is-probably-a-good-thing>

lxxi Breinlich, H., Donaldson, D., Nolen, P. J., & Wright, G. C. (2017). Information, perceptions and exporting: Evidence from a randomized controlled trial (Working Paper). Colchester, UK: Department of Economics, University of Essex.

lxxii Luca, M. (2011/2016). Reviews, reputation, and revenue: The case of Yelp.com (Working Paper 12-016). Harvard Business School. Retrieved 5 August 2019 from [https://www.hbs.edu/faculty/Publication%20Files/12-016\\_a7e4a5a2-03f9-490d-b093-8f951238dba2.pdf](https://www.hbs.edu/faculty/Publication%20Files/12-016_a7e4a5a2-03f9-490d-b093-8f951238dba2.pdf).

lxxiii Haldane, A. (2018, 28 June). The UK's productivity problem: Hub no spokes. Speech at the Academy of Social Sciences. Retrieved 5 August 2019 from <https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/the-uks-productivity-problem-hub-no-spokes-speech-by-andy-haldane>.

lxxiv Cai, J., & Szeidl, A. (2017). Interfirm relationships and business performance. *Quarterly Journal of Economics*, 133(3), 1229–1282.

lxxv Van Cauwenberge, P., Bauwhede, H. V., & Schoonjans, B. (2013). An evaluation of public spending: The effectiveness of a government-supported networking program in Flanders. *Environment and Planning C: Government and Policy*, 31(1), 24–38; Schoonjans, B., Van Cauwenberge, P., & Vander Bauwhede, H. (2013). Knowledge networking and growth in service firms. *Service Industries Journal*, 33(11), 1051–1067.

lxxvi Behavioural Insights Team. (2019, 10 April). Reducing dropout at sixth form colleges. Behavioural Insights Team Blog. Retrieved 5 August 2019 from <https://www.bi.team/blogs/reducing-dropout-at-sixth-form-colleges>.

lxxvii HM Revenue & Customs. (2019). Estimated costs of principal tax reliefs. Retrieved 5 August 2019 from <https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs>.

lxxviii BIT research for BEIS on encouraging businesses to invest in innovation (forthcoming); Michaelis, C., King, K., & Radevsky, A. (2010). Qualitative research into businesses research and development (R&D) decision-making processes (Technical Report 101). HM Revenue & Customs. Retrieved 5 August 2019 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/32557/report101.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/32557/report101.pdf).

lxxix Benhabib, J., Bisin, A., & Schotter, A. (2010). Present-bias, quasi-hyperbolic discounting, and fixed costs. *Games and Economic Behavior*, 69(2), 205–223; Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65(3), 272–292.

lxxx See, for example, Bulir, A., Cihák, M., & Jansen, D.-J. (2014). Does the clarity of inflation reports affect volatility in financial markets? (Working Paper 14/175). International Monetary Fund. Retrieved 5 August 2019 <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Does-the-Clarity-of-Inflation-Reports-Affect-Volatility-in-Financial-Markets-42361>; Ehrmann, M., & Talmi, J. (2017). Starting from a blank page? Semantic similarity in central bank communication and market volatility (Working Paper 2023). European Central Bank. Retrieved 5 August 2019 from <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp2023.en.pdf?561f7f26fea2285effb36dae431188d1>.

lxxxi CBI. (2017). From ostrich to magpie. Retrieved 5 August 2019 from <https://cbicdn.azureedge.net/media/1165/cbi-from-ostrich-to-magpie.pdf?v=20190801.2>.

# Stay in touch

---

Contact the team at [www.bi.team/contact](http://www.bi.team/contact)

Stay up to date with our latest work, findings and job vacancies. Subscribe for email updates at [www.bi.team/subscribe](http://www.bi.team/subscribe)





# The Behavioural Insights Team

---

[www.bi.team](http://www.bi.team)

4 Matthew Parker Street  
London SW1H 9NP

© Behavioural Insights Ltd. Not to be reproduced without  
the permission of the Behavioural Insights Team

