MONEY & BUSINESS

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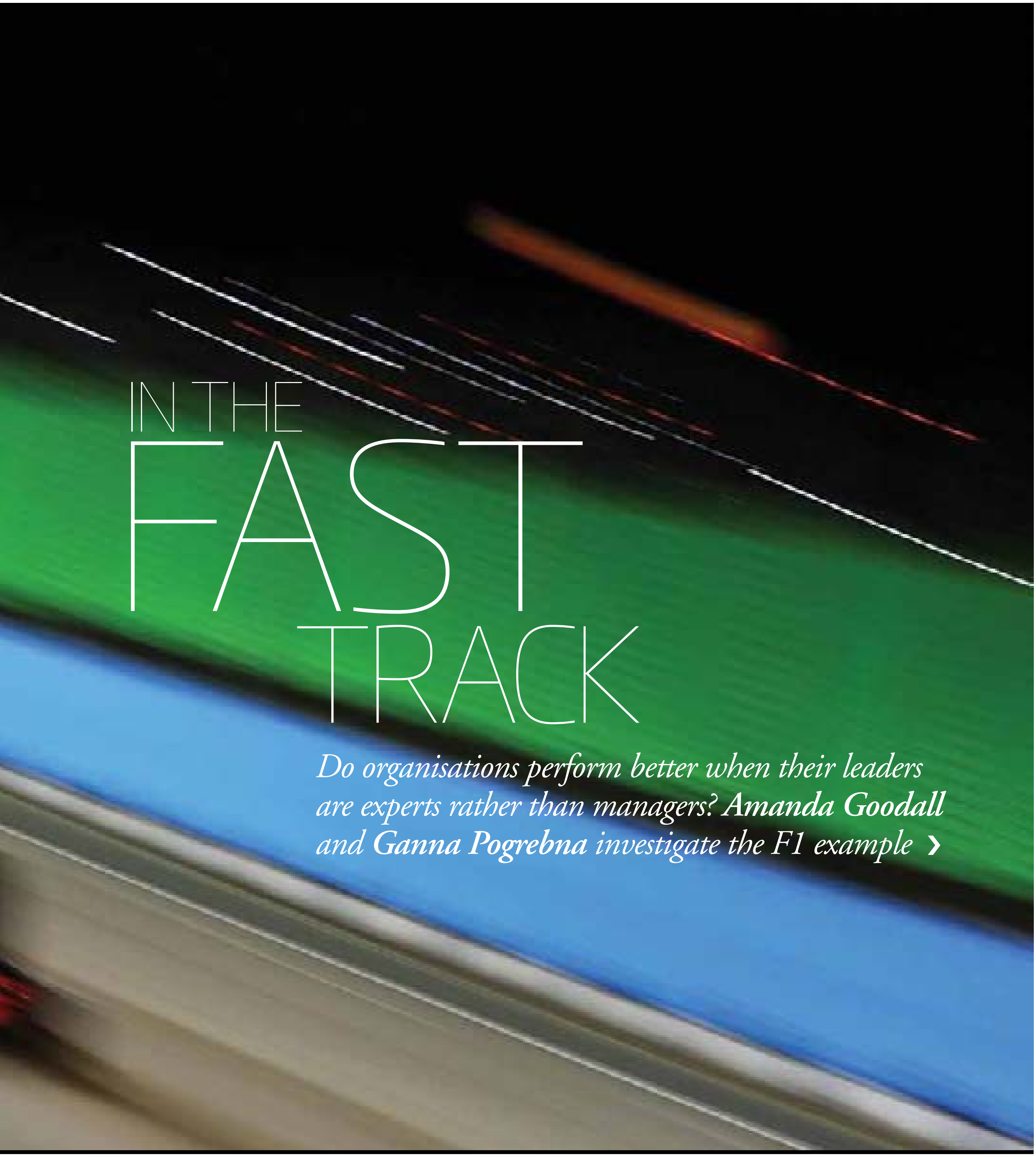

IN THE FAST TRACK

Do organisations perform better when their leaders are experts rather than managers? ***Amanda Goodall*** *and* ***Ganna Pogrebna*** *investigate the F1 example* ›

There has been a recent trend across a broad range of organisations to promote people thought to be skilled managers into top leadership positions. Often these individuals have neither a background in the sector concerned nor hands-on experience of its core business activity. Similarly, major firms have been moving away from hiring chief executives with technical expertise towards selecting leaders who are generalists.

Our research suggests that this is a mistake. In the highly competitive industry of Formula 1 (F1) racing, we show that it is the experts not managers who excel as leaders. Our findings add to the growing body of evidence – in fields as diverse as basketball, medicine and higher education – that knowledge of and experience in a field are at least as important as managerial skills for successful leadership. We have analysed six decades of data on the F1 World Constructors' Championship, in which each organisation's performance can be measured objectively. Our dataset includes information on every car of each constructor team – Ferrari, Red Bull, McLaren, and so on – in every F1 race between 1950 and 2011. We have also collected background information on all team leaders for that period.

Each F1 team competes by entering two cars in consecutive races every year. The goal is to maximise the number of points gained in races. Points are awarded based on the final position of each car at the end of the race: the first car wins the largest number of points with other race points assigned down to tenth position. Teams are relatively homogeneous and identical criteria are applied to measure their performance.

TYPES OF F1 LEADERS

F1 team leaders operate in a skilled and stressful environment that requires quick decision-making. The principal is responsible for the day-to-day running of the team. Some leaders – for example, Frank Williams of Williams and Tony Fernandes of Caterham F1 Team – own and run their own teams. In other cases, principals are hired by owners to manage their teams: such is the relationship between the beverage firm Red Bull and principal Christian Horner.

The precise role of a team leader varies but the kinds of decisions they make include choosing drivers, having the final word on technical issues (such as how the car is set up, pit strategy and which gearbox or engine is used) and financial decision-making, for example, about sponsorship or team wages. Our research focuses on two components of leadership ability: the first is what we call inherent knowledge or hands-on expertise; the second is industry experience. We first identify a leader's depth of knowledge and related expertise and then test whether these characteristics are correlated with organisational performance. We identify four types of leaders according to our two components.

Managers are leaders with low or basic inherent knowledge and minimal industry experience. Manager-leaders might be successful business people who have moved to F1 from a different and often unrelated industry. Drivers are leaders with high inherent knowledge and long industry experience. Driver-leaders have been involved in competitive racing (F1 and other competitions) as drivers from a very early age. Mechanics are leaders with medium inherent knowledge and average industry experience. Mechanics have practical technical experience in car-making and mechanical repair, but they have not driven competitively and do not have a degree in mechanical engineering. Engineers are leaders with low inherent knowledge of the core business activity and short industry experience. Engineers are highly skilled professionals and are defined in our study as those with degrees in mechanical engineering.

> “DRIVERS ARE LEADERS WITH HIGH INHERENT KNOWLEDGE AND LONG INDUSTRY EXPERIENCE

Bearing in mind these different types, who makes the best F1 team leader? To explore whether an F1 team's performance depends on leadership type, it is worth looking first at the patterns in the raw data. These reveal that podium frequency – winning a first, second, or third place in a race – and average wins frequency – coming first in a race – are more prevalent among teams headed by drivers and mechanics

PREVIOUS PAGE LEWIS HAMILTON (SINGAPORE IN SEPTEMBER 2012) IS CURRENTLY ONE OF BRITAIN'S MOST SUCCESSFUL F1 DRIVERS – COULD HE BE A FUTURE TEAM LEADER? **ABOVE** 2010 AND 2011 SEASON CHAMPION SEBASTIAN VETTEL WINNING THE SINGAPORE GRAND PRIX 2012 FOR RED BULL, A HIGHLY SUCCESSFUL TEAM RUN BY CHRISTIAN HORNER, A FORMER DRIVER

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than teams headed by managers and engineers. Drivers and mechanics also have higher average pole frequencies – finishing first in qualifying and, as a result, starting the race at the front of the grid – and higher average fastest laps. They also win twice as often as the two other kinds of F1 leader.

Next we use econometric techniques to take account of the influence of a series of variables, including type of race circuit, team fame, race year and number of cars in each competition. In each analysis, the dependent variable is a measure of a team's performance based on the final position of each car in every race. The key explanatory variable is leadership type. Our analysis confirms that teams led by drivers and mechanics are more successful than teams led by managers and engineers. In other words, better F1 team performance is associated with leaders who have high inherent knowledge of the core business and longer industry experience.

WHO'S IN THE DRIVING SEAT?

The core business activity in F1 is driving. So our final task is to address the question of whether the amount of driving experience makes a difference. To do this, we identify those principals who have ever had competitive driving experience. The results show that time spent as a driver has a big effect on future performance as a leader. For a sense of the size of the effect, it is helpful to consider what happens when a leader has ten years of experience rather than none. This is associated with a 16 percentage points higher probability of the leader's team gaining a podium position – after controlling for circuit, race year, constructors and number of cars qualified. The extra probability of gaining a podium position when a leader has had a decade's experience of competitive racing is about one-in-seven.

So what might explain our results? Former drivers and mechanics may become better leaders because they are familiar with all aspects of F1. From an early age, driver- and mechanic-leaders develop technical knowledge about the underlying activity of F1 racing. This may mean that they acquire extensive experience in formulating driving tactics and combine it with a good understanding of mechanics.

Former drivers and mechanics may also command more respect because of their proven track record. They may also be viewed as more credible since they have 'walked-the-walk'. Having been 'one of them' may signal that a leader understands the culture and value system, incentives and motivations of their colleagues. In addition, we might expect driver-leaders to act as role models within the team, to coax higher performance and to manage the egos of the drivers. Finally, leaders with high levels of expertise and experience may communicate more effectively with any part of the racing team that supports strategy.

Inherent knowledge of the core business cannot be a proxy for management and leadership ability. But our research suggests that in contrast to recent corporate trends to hire generalists as leaders, being a manager alone is not sufficient. Managers performed the least well as F1 team leaders. Leadership is a loaded topic and it is sometimes hard for observers to suspend a natural desire to rely on anecdotes. Based on the evidence in our study, we argue for an 'expert leader' model of effective leadership incorporating a combination of inherent knowledge and industry experience. ■

ftp.iza.org/dp6715.pdf

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Ganna Pogrebna *is Leverhulme Fellow in Economics at Sheffield University*

THIS PAGE, LEFT TO RIGHT ROSS BRAWN (WITH MICHAEL SCHUMACHER) TEAM PRINCIPAL OF MERCEDES GP, WAS AN ENGINEER AND MECHANIC; LEGENDARY DRIVER JACKIE STEWART SUCCESSFULLY LED TEAM COSWORTH IN THE 1990S

REX; GETTY

BRUCE LYONS
Professor of Economics at the University of East Anglia and Deputy Director of the ESRC Centre for Competition Policy

OPINION: COMPETITION LAW

A UNITED FRONT?

Professor Bruce Lyons looks at the merger of Britain's two competition agencies and asks whether ensuing decisions will better serve the consumer?

The twin pillars of Britain's system for enforcing competition law are to be merged into a single institution, the Competition and Markets Authority (CMA). Both the Competition Commission (CC) and the Office of Fair Trading (OFT) have a high reputation, regularly ranked alongside their US counterparts and the European Commission as among the best in the world, but they work in very different ways and much could be lost if the CMA is less effective than its predecessors.

To think about how to make the CMA a success, we need to understand the organisations that are being merged – what they do and how they do it. Both were set up to enforce competition law, the framework that tries to make markets work better for consumers – outlawing cartels that raise prices, stopping dominant firms unfairly forcing out competitors and preventing anti-competitive mergers. For the 'antitrust' parts of competition law (cartels, restrictive agreements and unfair practices by dominant firms), the OFT initiates, investigates and decides all cases. For other parts of the law, it filters cases for the CC to pursue: mergers and market investigations.

In the jargon, the OFT's filtering process, establishing a prima facie potential problem, is known as phase 1; in phase 2, the CC conducts an in-depth, independent investigation and reaches a final decision. Merger and market decision-making under this system has generally been considered to be good, although possibly a little cumbersome. Antitrust decision-making has received much greater criticism.

EARLY HISTORY

The CC began life in 1948 as the Monopolies Commission, consisting of independent commissioners asked to make recommendations on certain topics or markets to the appropriate government minister. The commissioners are known as 'members', and are supported by an expert permanent staff who prepare evidence and conduct technical analyses. The CC has evolved but retained its basic decision-making model. Members are now more openly appointed and require greater expertise in how markets work. They are appointed part-time for eight

Will the new competition agency be able to prevent anti-competitive mergers such as News Corp's attempted takeover of BSkyB?

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years without the possibility of reappointment (to keep them independent). They also have full powers of determination and do not simply make recommendations to ministers. In the CC, each case is to be decided by a group of four or five members, such as a lawyer, economist, financial specialist and a business executive.

The OFT was set up in 1973, modelled on a Directorate General of the European Commission. It gained major powers after the 1998 Competition Act, which introduced

> "IT IS CRUCIAL TO IMPLEMENT A CONSISTENT APPROACH TO DECISION-MAKING

prohibitions into antitrust, and the 2002 Enterprise Act, which criminalised cartels. The role of director general was split between a chief executive and chairman, along the governance lines of a public company.

Case initiation, investigation and decision-making are by OFT staff and executives. This did not in essence change with the new responsibilities: no separation was introduced between the decision to open a case and the final antitrust decision. Until recently, the identity of the decision-maker was not even known. There has been a lack of transparency, no formal separation between investigation and decision-making, and a perception that the decision-maker could be influenced by 'confirmation bias'. The CMA will merge two very different institutions. We know from commercial mergers that a clash of corporate cultures can result in disastrous outcomes, so it is crucial to implement a consistent approach to decision-making.

INDEPENDENCE IS KEY

On the face of it, this is not what the government has done. Although the OFT has consulted on some useful reforms, antitrust decisions will continue to be made by executives much as they are at present. Phase 2 decisions on mergers and markets will continue to be made by panels of independent experts, as at the CC. Two very different systems will have been put uneasily together as a compromise that would never have been designed starting from a clean sheet.

If a clear separation of phases 1 and 2 of mergers and market decisions can be effectively retained within the CMA, decision-making for these cases should continue to work well enough. But there is a question mark over antitrust decision-making, which needs to follow a similar two-phase approach with genuinely independent decision-making in phase 2. This would be possible under the new legislation, but it is not the trajectory that the reform process is following.

Law-makers tend to pay more attention to accountability to Parliament than to the nitty-gritty of how individual decisions are made. Yet it is on the effectiveness of decision-making that an institution's influence and reputation rests. This means that the CMA's first chairman-elect (former economics professor Lord Currie) and its chief executive (yet to be appointed) will be crucial. The first thing they will have to get right is a common culture of genuinely independent collective decision-making. ■

competitionpolicy.ac.uk


Higher relative public pay is associated with lower death rates for some patients

£ PAY REVIEWS

REGIONAL VARIATIONS

Should public sector pay be more varied across Britain?

THE CHANCELLOR of the Exchequer George Osborne has asked four pay review bodies – covering the NHS, teachers, prison officers and certain senior public sector staff – to consider making public sector pay more responsive to local labour markets. Research by Carl Emmerson and Wenchao Jin of the Institute for Fiscal Studies (IFS) suggests that there would indeed be benefits from greater variation in public sector pay awards across the country, but that a regional pay policy should be carefully designed.

The study published by the IFS first measures the differences between public and private sector pay. On average, public sector employees are paid more per hour than their private sector counterparts. For example, over the period 2009-11, men in the public sector were paid 20.2 per cent more per hour than men in the private sector. Most of this difference can be explained by differences in employee characteristics: men working in the public sector are, on average, slightly older and more educated than men in the private sector.

After taking account of these differences, the pay premium for working in the public sector falls to 5.5 per cent. The appropriate size of this remaining gap will depend on a number of factors, not least on what is required to attract and retain staff of sufficient quality in the public sector. The research also suggests that the public sector pay premium varies considerably across the country. As the chart shows, men working in the South East have a negative public sector pay premium. In London, the North and the North West, the premium is smaller than five per cent and not statistically different from zero. Wales has the highest premium of 18 per cent, followed by Northern Ireland with a premium of 15 per cent. This large variation in the public sector pay premium provides a strong case for local variations in pay. If higher relative pay leads to better quality public services in some parts of the country than in others, then it is arguably unfair; and if it does not, then it is clearly inefficient.

Other studies have indicated that higher relative public sector pay is associated with better GCSE results for pupils and lower death rates for some patients admitted to NHS hospitals. Allowing public sector pay to vary more across Britain would also increase the potential savings from moving public sector jobs out of relatively high-cost areas of the South East to other parts of the country.

UPS AND DOWNS

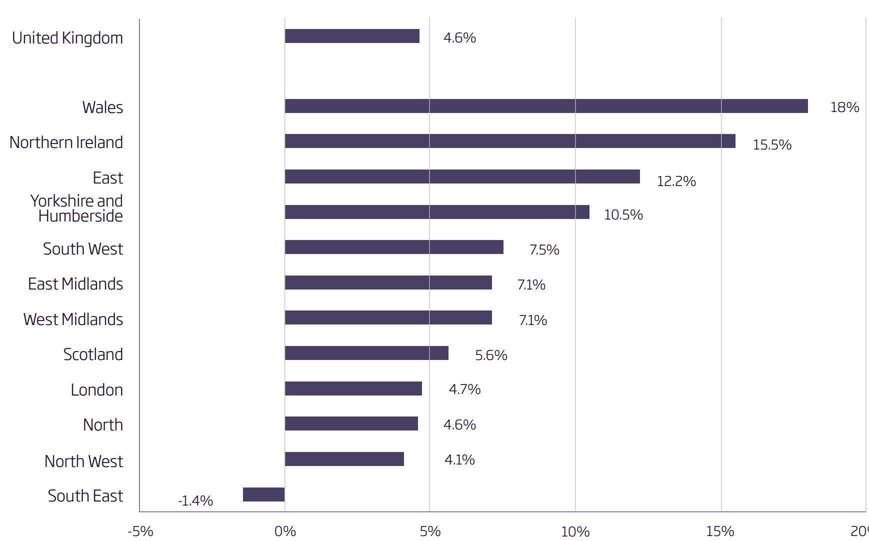
The evidence also suggests that the story is more complicated than one in which there are some regions where public sector pay is too high and others where it is too low. While the public sector premium for women varies considerably across the country (as with men, it is high in Wales and insignificant in London and the South East), the pattern across the rest of the country is different than for men.

In addition, the regional pattern within each public sector occupation is not the same. For example, the relative pay of male secondary school teachers is highest in the East Midlands, while the relative pay of male police officers is highest in Wales.

This suggests that an across-the-board regional pay policy – with, say, all public sector staff in Wales receiving a set amount less than the average and all public sector staff in the South East getting a set amount more than the average – would not be appropriate. The IFS researchers conclude that while a shift to centrally set but regionally varied pay awards may be a good idea, it should be implemented with care. ■

www.ifs.org.uk

THE PUBLIC SECTOR PAY PREMIUM FOR MEN BY REGION, 2009-11



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Pensions for the masses

What will the introduction of automatic enrolment pension schemes mean for employees?

THE UK IS IN THE process of implementing a radical reform of private pensions. Most employees aged between 22 and the state pension age will be automatically enrolled in a private pension scheme to which a 'default' contribution will be made by both the employee and their employer.

Employees can opt out subsequently but those who do so will risk losing their employer's contribution. People working for the largest existing employers – those with 250 or more employees – were potentially affected from October 2012, with those working for smaller or new employers being brought into the new regime over time.

The reform is likely to have a significant impact on the number of employees in the private sector who contribute to a pension, according to Rowena Crawford, Carl Emmerson and Gemma Tetlow of the Institute for Fiscal Studies (IFS). In 2011, just one in three private sector employees were members of a workplace-provided pension scheme compared with more than four in five employees in the public sector.

KEY FACT

THE UK HAS A WORKFORCE OF AROUND 29 MILLION AND SOME 23 MILLION ARE EMPLOYED IN THE PRIVATE SECTOR*

An increase in pension coverage is likely for two reasons, says the IFS team. First, evidence suggests that when employees are automatically enrolled in a pension scheme, more will remain members than would have actively chosen to join. Second, many private sector employees will find themselves able to receive a pension contribution from their employer for the first time. This will make pension saving financially more attractive. The low level of coverage among private sector employees before the reform gives plenty of scope for a significant increase in pension coverage.

While there are good reasons to expect pension coverage to increase, the impact on overall saving is less clear. First, evidence suggests that automatically enrolling employees in pension schemes leads to more people choosing to contribute the default amount, perhaps because they believe that it has been in some sense recommended. While this will lead to an increase in pension saving among those who would not otherwise have saved in a private pension, it could lead to a reduction in saving among those who would otherwise have chosen to save more than the default amount. Second, if individuals do increase their pension saving as a result of the reform, this does not necessarily mean that overall saving will rise. An increase in pension saving could be funded by a reduction in how much households save in other forms. Arguably even worse, it could lead to some people running down their debts less quickly than they would otherwise have done. Third, the cost of increased employer contributions will need to be financed from a combination of lower wages, higher prices or lower profits. All of these could depress saving.

CHOICES FOR ALL

Although the impact on total saving in the economy is ambiguous, the reform should lead to a significant boost in pension coverage among private sector employees. What's more, those who have good reasons for not saving in a pension at present remain free to opt out if they wish. The IFS researchers conclude that evidence on the actual impact of the reform – on pension coverage, pension saving, overall saving and earnings – should now be gathered to inform future policy decisions. For example, it is important to know whether the minimum amounts to be contributed by employees and employers have been set appropriately.

A challenge for researchers is that the way in which the reform is being implemented will make analysis of its impact difficult to ascertain. Careful consideration of data will be needed to shed light on precisely what effect the reform is having. ■

www.ifs.org.uk

Will new pension schemes for private sector workers make people happy in their old age?

ALAMY *Source Office for National Statistics (ONS)

£ CORPORATE TAX

THE COMPETITIVE EDGE

Will corporate tax cuts boost Britain's competitiveness?

RECENT CUTS IN THE corporate tax rate intended to stimulate investment will not boost Britain's competitiveness as much as the government hopes. That is the conclusion of research by Katarzyna Bilicka, Professor Michael Devereux and Dr Giorgia Maffini of Oxford University's Centre for Business Taxation.

The cuts in the statutory corporate tax rate – from 28 to 22 per cent by April 2014 – can be traced back to the coalition agreement of 2010, which aimed to create the most competitive tax regime in the G20. But even after the first cuts, the tax rate was only seventh lowest in the G20 in 2012. Further cuts will improve Britain's ranking to fourth – only Russia, Saudi Arabia and Turkey will have lower rates.

> FURTHER CUTS WILL IMPROVE BRITAIN'S RANKING TO FOURTH

But the statutory tax rate is only one component of the tax system that determines tax liabilities and hence the incentive to undertake new investment. The other is the definition of taxable profit: such definitions vary across countries, for example, in how quickly capital expenditure can be written off against taxable profit.

Statutory tax rates on their own are an unsatisfactory guide to the effect of tax on investment and an unsatisfactory measure of competitiveness between countries. Measures of effective tax rates that take account of changes in the tax base are what are needed instead.

The research uses two measures of effective tax rates, reflecting two kinds of investment decision. The first is a discrete choice, for example, whether a business should expand its activities in Britain, which may depend on the proportion of total profit taken in tax – the 'effective average tax rate'. The second measure considers the size of investment, conditional on the choice of location – the 'effective marginal tax rate'.

A SLOW CLIMB

The researchers calculate these effective tax rates, and compare them with the other G20 countries. In 2012, Britain's effective average tax rate ranked ninth and its effective marginal tax rate ranked 15th. By April 2014, the rankings will be fifth and 14th respectively. These lower rankings, compared with the headline tax rate, arise because Britain has a relatively broad definition of taxable profit.

The relatively small change in Britain's competitiveness from the corporate tax cut contrasts with the impact of a corporate tax reform in Italy. The new government there has introduced a tax relief reflecting the cost of finance, which has advanced the country's effective marginal tax rate from fifth to first place in the G20 rankings. ■

www.sbs.ox.ac.uk/tax

£ TAX HAVENS

EVASIVE ACTION

Which tax havens are signing up to closer scrutiny?

Tax havens like Monaco will be more carefully monitored in the future

TAX HAVENS ARE under increasing political pressure from relatively high-tax countries to co-operate in efforts to reduce tax evasion and tax avoidance. Research by Katarzyna Bilicka and Professor Clemens Fuest of Oxford University's Centre for Business Taxation has been looking at the effectiveness of 'tax information exchange agreements' (TIEAs) that tax havens are now being expected to sign.

The pressure on tax havens is partly a result of the financial crisis, rising public debt and the need to increase government revenues. But there is also a long-standing debate about the impact of international tax competition. Since 1998, the OECD has argued that some forms of tax competition are harmful for the world economy. This includes practices that allow investors in high tax countries to evade taxes. Between 2000 and 2002, most tax havens made formal commitments to comply with new standards on bank secrecy and information exchange developed by the OECD. They are expected to sign a minimum of 12 TIEAs with other countries to avoid being put on the list of unco-operative jurisdictions.

> THE PRESSURE ON TAX HAVENS IS PARTLY A RESULT OF THE FINANCIAL CRISIS

The researchers have investigated how tax havens have chosen their partner countries. The effectiveness of TIEAs in tackling tax evasion depends on whether they are signed in cases where they are actually relevant. As indicators of relevance, the study uses a measure of economic links between tax havens and partner countries in the form of trade, portfolio investment and foreign direct investment. Analysing 555 TIEAs signed by tax havens in 2008-11, the researchers found that, on average, tax havens have signed more treaties with countries to which they have stronger economic links. But this does not mean that TIEAs cover all relevant countries. On average, tax havens only have treaties with half of their five most important partner countries – the network is far from complete.

These results suggest that the OECD initiative has been successful at inducing tax havens to sign TIEAs with the right countries. Put differently, there is no support for the view that tax havens try to undermine tax information exchange by systematically signing treaties with irrelevant countries, where they are unlikely to matter because economic relationships are negligible. But if the objective is to have information exchange among all countries with significant economic links, there is a way to go. ■

www.sbs.ox.ac.uk/tax

ALAMY

GENOMICS

TAILOR MADE

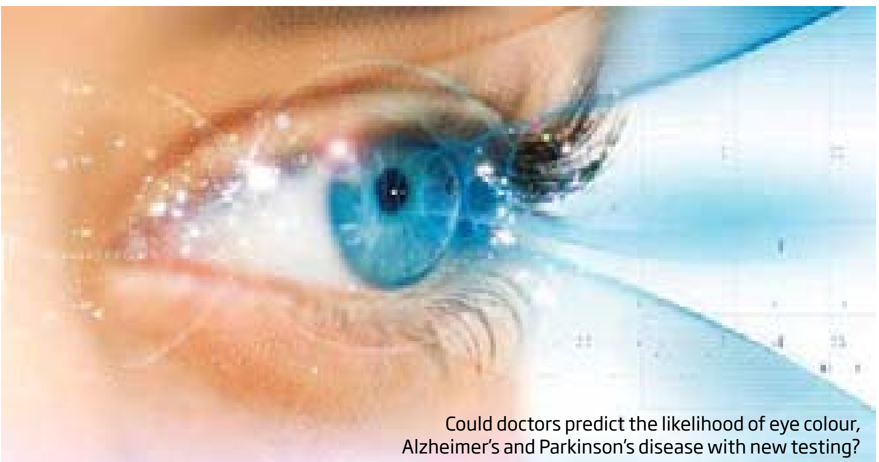
What are the prospects for genetic profiling?

POWERFUL VISIONS OF emerging technologies promoted by the firms that stand to profit from them can have a significant influence on regulators. That is the conclusion of research by Dr Chris Groves and colleagues at the ESRC Centre for the Economic and Social Aspects of Genomics (Cesagen), who have looked at the 'personal genomics' industry in the US.

The Cesagen team have examined four years' worth of documents relating to regulation of the industry and interviewed senior representatives of leading firms. The study shows how firms' claims about what 'personalised medicine' will offer have helped to reshape the US regulatory landscape and to sustain a fragile market for their services.

The personal genomics industry developed after the Human Genome Project was completed in 2003. Visions of personalised medicine emerged in which, for example, doctors could prescribe drugs that were tailored specifically to a person's genetic makeup – and had no side effects. Doctors might also recommend treatments based on genetic profiles to stop people from becoming ill in the first place.

New research methods in genetic epidemiology after 2003 made it possible to associate areas of variation within individual genomes to phenotypical traits – from eye colour to Alzheimer's disease. Personal genomics firms based their business models on using the publicly available results of these studies to assess the contribution of an individual's genetic makeup to their risk of getting particular medical conditions.



Could doctors predict the likelihood of eye colour, Alzheimer's and Parkinson's disease with new testing?

With biological samples from clients, firms scan genetic material and compare the outcome with the results of genome association studies. They then use proprietary techniques to produce risk profiles, estimating clients' genetic risk for conditions ranging from age-related macular degeneration to Parkinson's disease. What distinguishes these tests from earlier susceptibility tests is that they do not look for variations in just one gene with which a particular condition is closely linked. Instead, they look for variations in a number of genes, which may together increase risk.

> DOCTORS MIGHT RECOMMEND TREATMENTS BASED ON GENETIC PROFILES

The complexities involved in assessing these probabilities have driven scientific scepticism about the tests' validity and medical scepticism about their clinical value. The US Food and Drug Administration acted early to assess whether the tests sold by firms like 23andMe, deCODEme and Navigenics should be considered medical devices that can be regulated, rather than just consumer

DEBT

Money worries

Serious financial problems can cause profound mental health and anxiety issues that affect people's everyday lives

PEOPLE IN BRITAIN who have trouble paying their debts are more than twice as likely to have mental health problems or suffer severe anxiety compared with the population as a whole. What's more, among people with the toughest debt challenges – arrears on mortgage or rent payments – the rate of mental health problems is three times higher.

These are among the findings of research by Dr John Gathergood of the University of Nottingham. His study reveals that people who face debt problems find that the stress and anxiety spills over into other areas of their lives. "One striking finding is that many people with debt problems describe feelings of being unable to concentrate on day-to-day activities or make normal decisions," he says. "This has wider effects on their attitudes and general health."

In parts of the country where bankruptcy and repossession are more common, the impact of debt on people's mental health is less severe. This seems to result from a 'social norm' effect: people experience less impact of negative events when they are more common among their peer group. The effect seems to occur because the social stigma of debt problems is lower in areas where debt problems are more common.

A BUMPY RIDE

The study analyses data on the financial position and mental health characteristics of around 10,000 people in the UK between 1991 and 2008. It estimates the mental health effects of being unable to meet debt payments on unsecured debt, such as credit cards, as well as mortgage and rent payments. The research measures people's mental health using data on recognised medical conditions plus their responses to questions about their feelings and experiences, including sleeplessness, self-confidence and ability to concentrate.

People who face problems paying unsecured debts – around 15 per cent of the sample – are more likely to suffer anxiety and say that they are experiencing adverse effects on their feelings and emotions, including feeling constantly under strain, hopeless and incapable of decision-making. More severe mental health effects are found among people who are late with housing or rent payments, particularly those with arrears on their mortgage. Among people with mortgage arrears, one in five suffers a recognised impact in the form of depression, severe anxiety and related mental health effects. Falling house prices and negative equity amplify the negative effects of unpayable mortgage debt on mental health. ■

www.nottingham.ac.uk/economics/people

ALAMY

products. In response, these three firms began working together to formulate scientific standards for their products.

The Cesagen research shows that early efforts to create standardised methods for risk profiling failed because the firms set great store by the uniqueness of their own methods. But following the early setbacks, firms changed their approach.

WHAT SOCIAL VALUE?

One of the regulators' chief concerns was clinical utility – the extent to which statements about genetic risk would be valuable for doctors making treatment decisions. In response, firms suggested that the personal utility of tests for clients was important, something that is difficult to assess. For example, it may be about whether people find genomic risk profiles helpful in changing their lifestyles, whether they help people feel more in control of their future generally, or a range of other considerations.

Nevertheless, firms made a public case that the personal utility of tests would be a vital part of the future social value of personal genomics. They argued that to restrict tests on the basis of their lack of clinical utility would stifle innovation. Representatives of US federal health agencies supported this future vision.

Although the market for personal genomics remains small, it is growing, with firms selling their products around the world. Cesagen's research shows the significance of their ability to articulate powerful visions of the future that the products may help to create. ■

www.genomicsnetwork.ac.uk/cesagen

Getting yourself into debt can lead to worrying mental health issues

Who is most likely to look forward to a comfortable retirement?

PENSIONS

Who saves for retirement?

Factors that drive people to put money aside for old age

NEARLY HALF OF BRITAIN'S workforce has no pension plan, according to a study by Mark Bryan, Birgitta Rabe and Mark Taylor of the Institute for Social and Economic Research (ISER), and James Lloyd of the Strategic Society Centre. Who Saves for Retirement is the most comprehensive study of what drives people to put money aside for old age, analysing the saving decisions made by over 25,000 employees.

The ISER report finds that only 55 per cent of employees are putting money into a scheme. The figure is similar for men and women, but women's pension positions are likely to be worse overall because of generally lower earnings and interrupted careers. On average, pension savers are older than non-savers. They also tend to be in couples, white, highly educated and own their own home. Within households, partners tend to behave similarly: for example, in 75 per cent of couples where the head of the household does not save for a pension, neither does the partner. Working people who are saving for their pensions are clearly drawn to occupational pension schemes: 87 per cent of those saving are members of an occupational pension only; just ten per cent save in a personal pension plan only; and three per cent use both.

Occupational pension schemes that include employer contributions are by far the biggest draw for would-be savers. But only 40 per cent of employees in the retail sector or working for smaller companies have access to occupational pensions. This compares with 80-90 per cent in public administration, education and large workplaces.

> ON AVERAGE, PENSION SAVERS ARE OLDER THAN NON-SAVERS

The take-up rate among employees of schemes with employer contributions is 70 percentage points higher than where there are no employer contributions. This large figure reflects both the direct incentive of the employer subsidy and more indirect effects – for example, potentially more active promotion of pensions by employers that offer contributions. Nevertheless, it suggests that the likely incentives of compulsory employer contributions in the government's pension reform will be large.

Older employees are more likely to take up an occupational pension, as are women and people who have a degree. Unsustainable financial commitments and money worries – such as mortgage arrears and low housing equity – discourage take-up of occupational schemes; and having a student loan results in a five per cent lower take-up.

These variations offer some clues as to who is most likely to drop out of the new automatic enrolment pension scheme. ■

www.iser.essex.ac.uk/publication/520317

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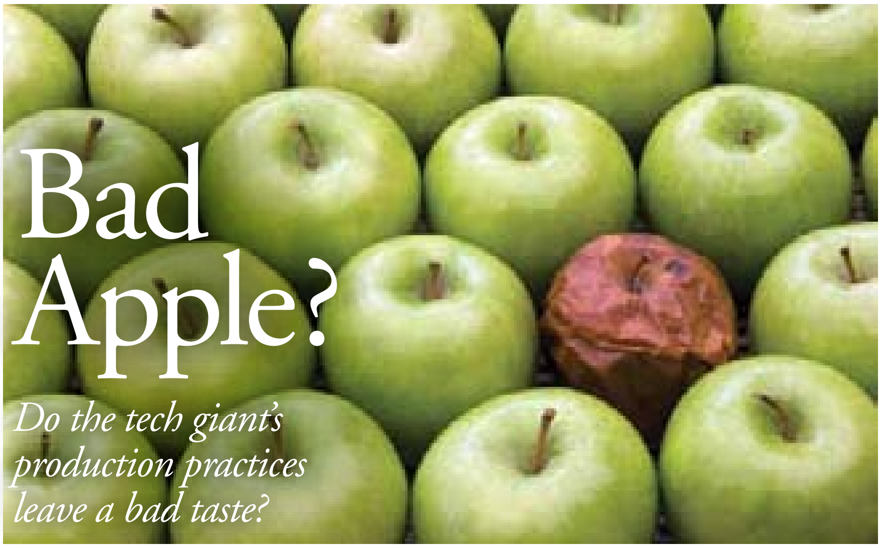

Bad Apple?

Do the tech giant's production practices leave a bad taste?

HOW DO PRESSURES to create value for shareholders influence the behaviour of leading firms? Researchers at the ESRC-funded Centre for Research in Socio-Cultural Change (CRESC) have examined the story of technology giant Apple. The firm has a passionate following among both investors and customers – and the results of the study may surprise many of those enthusiasts.

Until March 2012, Apple had paid no dividends since 1995 and had a track record of hoarding cash. Yet the firm has risen from 287th to first place in Standard & Poor's 500 ranking between 2001 and 2011. It is a stunning shareholder value success because it combines high margins with spectacular, sustained revenue growth.

Apple's impressive sales and profit figures are driven by such innovations as the iPod, iPad and iPhone. But the firm lives precariously because these innovations are assembled from generic components. Keeping a hold over its supply chain is fundamental to its business model. Apple's main component supplier for its hand-held devices is Foxconn International Holdings (FIH), the vast majority of whose 126,000 employees are based in Guangdong Province, China. Low-wage Chinese manufacturing generally has a good profit to sales ratio. But for FIH, the benefits of low wages are negated by firms like Apple, whose terms ensure that its assemblers make little profit.

SMART PRODUCTION?

FIH's productivity was also hit by the rise of smart hand-held devices. These proved more time-consuming to assemble under contracts that 'penalised' FIH for spending more time assembling each device. The changes also meant more specialisation, so FIH had to abandon non-smartphone production, losing the firm a market segment that generated cash. Following a series of accidents and suicides allegedly caused by working conditions, there was pressure on FIH to improve conditions and pay higher wages, but it was not compensated for these costs. FIH increased wages by 30 per cent for most employees and 66 per cent for staff with particularly desirable skills. The firm also began to recognise unions and local wage bargaining in its factories. This pushed FIH into pre-tax losses, so moved production to other Chinese provinces and to other countries where labour costs are even cheaper.

> "APPLE'S BUSINESS MODEL IMPLIES HIGHLY EFFICIENT SUPPLY CHAIN CONTROL

Apple's business model implies highly efficient supply chain control. It also implies the large-scale import of goods, which adds to the US trade deficit and the significant export of US blue-collar jobs. How might Apple do things differently? The CRESC team has conducted a thought experiment, in which Apple accepts lower margins and employs more US blue-collar labour. The actual costs of building one iPhone assembled in China are just $7.10. Building an iPhone assembled in the United States – where the average wage in the electronics industry is $21 per hour – would be $165.67. The gross margin would fall by $159 from $452 to $293, but would still remain healthy at nearly 50 per cent. But there would also be gains for the US economy in terms of direct job creation.

Given the social costs of Apple's supply chain control and its poor record of US job creation, the CRESC researchers conclude with a question: 'What is it all for?' The end result is puzzling: a large pile of cash that sits on the balance sheet, neither producing new jobs nor bulking out returns to investors. There may be paper gains for some Apple shareholders – but what does Apple do for everyone else? ■

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NEWS IN BRIEF

INVESTING IN INNOVATION

Innovative activities in China are growing at an astounding rate fuelling widespread concerns over Western economies' ability to maintain their dominance in knowledge creation and high-skill employment. New research by the Institute for Fiscal Studies on innovation and globalisation indicates that the UK could benefit from these developments, but that this will require investing in the necessary skills and innovative capacity. The challenge for Western governments is not to devise policies to deter investment in China or other emerging economies, but to ensure they make sufficient investments in their own economies. www.ifs.ac.uk

CHINA IS HEAVILY INVOLVED WITH INFORMATION TECHNOLOGY – HERE MICROSOFT'S CHINESE CEO IN BEIJING

LEANER STARTUPS DO BETTER

An abundance of resources may do more harm than good for start-ups, according to a study at the University of Aberdeen of 7,000 Norwegian start-up firms and their founders. Economic theory suggests that if entrepreneurs are liquidity constrained and not able to borrow in order to operate on an efficient scale, then entrepreneurs with more personal wealth should do better than those with less wealth. The research findings show that, as expected, there is a positive relationship between a founder's prior wealth and start-up size, but not for the richest quartile of founders, where start-up performance deteriorates. A moderate amount of wealth boosts start-up performance while higher wealth may induce a less alert or a less dedicated management. www.abdn.ac.uk

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OPINION: TOWN CENTRES

RETAIL THERAPY

Professors Neil Wrigley and Michelle Lowe consider whether the high street will ever bounce back, and if 'local heroes' and corporate retailers joining forces is the answer

The collapse in consumer confidence in late 2008 tore through Britain's town centres, and the economic crisis triggered responses to longer-term forces of change in high-street retailing that were masked during the boom years earlier in the 2000s. Three structural forces were particularly important: first, the growth of online shopping; second, competition from out-of-town retail development, filtered through the regulatory backlash of the 'town centres first' policies; and, third, the rise of 'convenience culture' as consumers reassessed the money and time savings attributed to 'one-stop' shops.

These forces were far from uniformly negative for high-street retailing. But combined with the grim realities of no-growth 'austerity Britain', they prompted growing anxiety about

> HOW CAN SOCIAL SCIENCE CONTRIBUTE TO THIS DEBATE ABOUT HIGH STREET FUTURES?

the economic health of town centres. Faced with claims that high-street footfall had fallen dramatically and town centre vacancy rates had doubled, the government responded. In May 2011, it commissioned an independent review of Britain's town centres by TV's 'queen of shops', Mary Portas. Portas expressed passionate views about the need to consider high streets not simply in commercial terms but as 'dynamic, exciting and social places that give a sense of belonging and trust to a community'. Her review, published in December 2011, contained a series of recommendations, including what became known as 'Portas Pilots' to test options for boosting high-street vitality. In March 2012, the government accepted virtually all the

Can the 'Portas Pilots' boost high-street vitality?

recommendations. It claimed to go further, too, offering 'a raft of new incentives, funding schemes and bureaucracy-busting measures, in a bid to rejuvenate the country's rundown high streets'. By July, 27 Portas Pilots were in place with a brief to assess what ideas worked most successfully.

How can social science contribute to this debate about high-street futures? In a major ESRC research project supported by Tesco, we are looking at four areas. The first is providing insight into the marked variation in performance of town centres in response to the crisis: Why have some thrived while others have terminally declined? This question has been neglected by commercial data providers. There is consensus on the strong North-South divide in performance, but other simple differences (such as between large and small centres) have been inconsistently interpreted. More subtle drivers (such as local institutional structures supportive of the high street or the effects of high levels of long-term vacancy) have been largely ignored. Yet some performance drivers are simply assumed by conventional wisdom, such as the protective effects of 'diversity' – town centres dominated by a wide range of small, independent retailers. Academic research indicates that 'diversity' may need to be complemented with corporate retail presence to offer the greatest protection.

The second contribution of social science is providing insight into how performance differences are affected by scale: Do the factors that offer protection at a regional level remain the same at the scale of a single city, or do new drivers come into play? A related question concerns the performance of secondary retail centres – the local centres, shopping parades and peripheral streets often missed by commercial surveys. The third contribution is providing a conceptual framework for understanding both complex variations in performance and longer-term, evolving configurations of high streets. What value can be added to understanding the evolutionary trajectories of town centres and their responses to the crisis by concepts of the 'resilience' of regional economic systems?

HOW RESILIENT IS THE HIGH STREET?

The 'engineering' interpretation of resilience suggests that high streets can 'bounce back' and resume their pre-crisis trajectories. The 'ecological' interpretation suggests that the fragile ecologies of many high streets may be stretched beyond a tipping point, from which they are unable to bounce back and must move to new configurations. Our 'adaptive resilience' interpretation focuses on forms of anticipatory and reactive reorganisation to cope with changing competitive dynamics following a crisis.

The final contribution is evidence- and theory-based insight to inform policy. For example, an 'adaptive resilience' perspective implies accepting that high streets have always been dynamic, rarely evolve smoothly and are constantly reshaped by crises, so the morphing of the ubiquitous corn merchants of 19th-century high streets into today's mobile phone shops should not be over-interpreted. This implies that the policies likely to be most effective must work with the grain of the evolutionary trajectories becoming clear before the crisis. As Britain's high streets gradually emerge from crisis, it is unlikely that there will be bounce-back to earlier forms. More likely is a renewal of pre-crisis trends.

Accepting that allows us to map out 'adaptively resilient' high streets of the future. Their core is likely to involve 'complementarity' (with online retail, emerging forms of consumer culture and shifts towards leisure services provision); raised levels of quality and consumer service; and symbiotic relationships between small, independent shops – particularly 'local heroes' – and corporate retailers. ■

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