

Centre for Business Research



Annual Report

1 August 2021 – 31 July 2022

Foreword

The past academic year was another one affected by the Covid crisis, which although abating in terms of its severity, continued to disrupt the normal working of the university sector, by placing additional teaching and administrative responsibilities on academic staff, and also making international travel, including for fieldwork, impossible for much of the time. Despite these difficulties, the Centre completed its part of the major research project known as the 'R4HC' initiative, or 'Research for Health in Conflict in the Middle East and North Africa', which was supported by the UK's Global Challenges Research Fund. Two reports on the political economy of health, one on Lebanon and the other on Gaza, were published in the course of the year, and the Cambridge team hosted the end of project conference in March 2022. Significant progress was made on each of the Centre's other projects, which include the Centre's contribution to the Cambridge Corporate Database and related data sources which are informing the development of infrastructure for innovative businesses in the Cambridgeshire and Peterborough region; the Centre's collaboration with law and technology researchers at Hitotsubashi University, Tokyo, which is exploring the implications for law of machine-learning based forms of artificial intelligence; the Centre's participation in the ESRC's Digital Futures at Work Research Centre, which is led by Sussex and Leeds Universities; and the POPBACK project, led by the University of Loughborough at London, which is analysing the implications of populism and challenges to the rule of law in Europe. Thanks are due to our researchers for ensuring that project deadlines and key performance indicators were met in often difficult circumstances, and to our administrative team for meeting the many challenges posed by evolving online systems and hybrid working. We especially congratulate our colleagues Simon Turner, promoted to a tenured associate professorship at the Universidad de los Andes, Bogotá; Gaofeng Meng and Joseph Liptrap, appointed to lectureships at SOAS and Sussex Universities respectively; Andrea Mina, for the award of the best paper prize at the 2022 DRUID conference; and Mona Jebril and Helen Mussell, joint winners of the Gavin C. Reid Prize for the best paper by a CBR early career researcher.

Simon Deakin
Director, CBR

September 2022

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General Overview, Research and Dissemination Highlights

Introduction

The CBR, established in 1994, conducts interdisciplinary, evidence-based research on the determinants of sustainable economic development and growth. CBR research has pioneered new methods of data collection and analysis of enterprise and innovation, novel approaches to macroeconomic modelling, and original datasets tracking legal and regulatory changes and their economic impact over time.

The Centre's areas of specialisation include the construction and analysis of large and complex datasets on SMEs and innovation, longitudinal analysis of regulatory change affecting business firms, and fieldwork-based studies of corporate governance and organisational practice. The Centre has made a significant contribution to the development of research methods and theory in the analysis of law and finance. The Centre's research is disseminated to and used by managers, policy-makers and regulators in numerous countries.

The CBR is both a research centre and a network which builds on the connections made over the nearly three decades since its foundation. The Centre currently has 18 members of staff, 15 of whom were research staff, and 3 administrative staff. In addition, it has nearly 100 affiliate members, Research Associates, who are former research fellows and visitors who retain a link to CBR projects after they leave Cambridge and, in many cases, continue to work with us on new projects.

The CBR's offices are located at 11-12 Trumpington Street and in nearby Fitzwilliam House, both in the centre of Cambridge.

This report covers the activities of the CBR from 1 August 2021 to 31 July 2022.

History of the CBR

The contract between the ESRC and the University of Cambridge under which the CBR was established in 1994 specified a number of aims and objectives to be met by the Scientific Programme of the CBR.

Major advances were expected in these areas:

- the analysis of the interrelationships between management strategy, takeovers and business performance in an international competitive context;
- the analysis of the relationship between corporate governance structures, incentives systems, business performance and the regulatory and legal environment; the analysis of policy, entrepreneurial styles, innovation, finance, training and international activity and networking and cooperative activity in relation to the survival, growth and development of small and medium-sized firms. It was expected that in making these advances, the CBR would make a significant contribution to the construction and analysis of large and complex datasets including survey and panel data.

In order to achieve the objectives set out above, the CBR was to carry out the following actions:

- conduct an interdisciplinary research programme in Business Research;
- construct and maintain survey and related databases necessary for the conduct of Business Research;
- mount a series of workshops and seminars in Business Research;

- produce and distribute a Working Paper Series to disseminate the results of the Centre's research programme;
- maintain contact with researchers in the UK and abroad in cognate areas of research, and with potential users of the output of the Centre's research, in designing and executing the Centre's programme of research.

It was also expected that, in making these advances, the CBR would make significant contributions to the following areas: a) economics, b) human geography, c) management and business studies, and d) socio-legal studies.

Impact Highlights

Was the UK's Flagship Industrial Policy a Costly Failure? High-level Recognition for CBR Research

The CBR's research on the reasons for the lagging Research & Development (R&D) spending by UK businesses, conducted by David Connell, Senior Research Associate, was prominently cited by the then UK Chancellor of the Exchequer Rishi Sunak, in his 2022 Mais Lecture.



David Connell

In the [Mais Lecture at Bayes Business School](#) in London, Sunak said that the UK government would deliver its pledge to increase public investment in R&D to £22 billion a year. 'But the target for government investment in R&D is only part of the story', he said. 'In fact, our overriding challenge is increasing the amount of business investment in R&D. It is this investment that will ultimately drive the jobs, productivity, and growth of the future, and here we are significantly lagging. Self-financed business R&D as a percent of GDP is less than half the OECD average. And as [Cambridge economist Dr David Connell's research](#) shows, whilst other nations' businesses have increased the share of GDP they devote to R&D investment by 50% in recent decades, UK business investment in R&D has stayed flat or even fallen'.

Sunak said that the UK tax regime for R&D investment is generous, compared to other nations, but 'in spite of spending huge and rapidly growing sums, clearly it is not working as well as it should. In the UK, business spending on R&D amounts to just four times the value of R&D tax relief. The OECD average? 15 times'.

The cited report, authored by David Connell and published by the CBR in May 2021, is entitled: *Is the UK's flagship industrial policy a costly failure? An independent reappraisal of the objectives, theory, practice and impact of the UK's £7.3 billion a year R&D tax credits and £1.1 billion a year patent box schemes.*

David's report can be downloaded from the CBR website:

<https://www.jbs.cam.ac.uk/wp-content/uploads/2021/05/cbr-report-uk-flagship-industrial-policy-2021.pdf>.

Why the Water Industry in the UK is about to Undergo Reform

The CBR's Policy Associate, Boni Sones OBE, has participated for a third year in the important communication work that Affinity Water has been undertaking to educate 3.6 million customers across the SE of England on how to reduce their water usage. This is her report, written at the height of the summer drought of 2022.



Boni Sones OBE

The sensible messaging such as use a shower not a bath, turn off the taps while cleaning your teeth, or don't put on the dishwasher or washing machine until you have a full load, or don't water your garden as much your lawn will grow back, became part of its award winning and industry leading campaign www.saveourstreams.co.uk. It linked individual customer's water use to the health of its local rivers including the precious chalk streams across its region and associated plants and animal wildlife.

The Covid19 pandemic with its wash your hands messaging and more people working from home increased the water use of families across AWs three regions, which stretch from North London through Herts Beds and Bucks, Berks and Surrey down to Essex and Folkestone and Dover in Kent – seven Counties in all and five London Boroughs. The same messaging impacted all water companies in the UK who are now intent on pulling back usage to more normal levels to eventually get to an average of 110 litres per person per day (new legislation the Environment Act 2021) when it now stands at 142/152 litres of water per day per person. Long term Water Management Plans are set out by each company and their regional structures and regularly revised when need be.

AW is the largest water only company in the UK but regularly attracts criticism for the health of its chalk streams despite the fact it does not deal with sewage and has a well thought-through Catchment Management Plan in place which enables it to work with its stakeholders including farmers, MPs, councillors and interested bodies and academic institutions to improve river flows and monitoring.

Nationally water and water and sewage companies are in the hot seat with the Environment Agency joining calls for so called 'fat cat' water bosses to face stiffer penalties even prison for unwarranted sewage discharges into rivers. In July 2021 Southern Water was fined a record £90 million after pleading guilty to thousands of illegal discharges of sewage which polluted rivers and coastal waters in Kent, Hampshire and Sussex. One dogged EA manager had pursued this case over a number of years and exposed these discharges despite cutbacks in the Agency making such cases more difficult to detect as staff have told the Guardian newspaper. But even leading environmentalists are realising that the impact of global warming and increased house building are placing a heavy burden on water companies, particularly in the SE. The water companies rely on what is often Victorian infrastructure to supply water and there is what commentators to the Institute of Government (Changing of the guard

podcast July 2022) calls 'Broken Britain' and the 'patch and repair ethos' to national infrastructure. These old networks keep water flowing to the homes of customers and businesses and local care homes and hospitals in much the same way as other utilities such as rail companies also rely on old infrastructure.

Taking part in this crisis management when water supplies are threatened, often at night, has been insightful particularly overseeing the huge and impressive team production efforts to detect and repair leaks so that no homes are cut-off and to inform customers of what is happening through the Alerts section of AW website. Through data analysis planners get tankers to hospitals if need be and bottled water to priority customers while also, if need be, diverting the networks to ensure supplies.

The regulator OFWAT determines price and has a system of penalties when KPIs are not met such as repairing leaks in set time frames or issues with water quality. But some want to see it widen its focus to also take care of environmental concerns. Cynics might say such penalties can be factored in as investing in new infrastructure pipes and reservoirs is very costly to the companies. Water companies and Water and Sewage Companies also own a significant amount of recreational land near reservoirs and rivers which the public have increasingly enjoyed using during and since the Covid19 lockdowns when local walks became fashionable.

With the hot weather and high demand of July 2022 opinion formers and newspaper headlines are critical of the privatised water companies for imposing water use restrictions when they fail to fix the leaks on their networks leading to a fifth of our water supplies being lost to leakage each year although that figure is now improving. Official figures show this is the driest July on record since 1935 and the period between November 2021 and July 2022 has been the driest eight-month stint since 1976. The boss of Wessex water was exposed by the national press for filling his swimming pool at his home while asking his customers to save water. His £1 million salary was also singled out for criticism and the fact Wessex loses seventy million litres of water a day due to faulty infrastructure.

Ofwat says that there are eighteen water companies in England and Wales, ten of which have licences to provide water and sewage services while eight provide only water services.

Most of the companies operating in England and Wales are privately owned. Critics point out just how much these complex corporate and often foreign owned structures have taken in dividends to shareholders while leveraging up debt and paying significant salaries to senior executives since privatisation under the Thatcher government in 1989.

Stakeholders ask why water companies focus on customers water use and delegate 'blame' when the companies themselves have relied on 'patch and repair' rather than more and better investment as a strategy? There has been no new major reservoir built in the UK since 1991 when the Carsington reservoir in Derbyshire was first flooded. A number of water supply reservoirs have been proposed since the 1960s but very few have made it to completion.

In their defence even environmentalists point out that water companies are not part of the planning process and have little say in what is built where when new developments are proposed. The UK is looking into the 'jaws of death' when it comes to national water supplies by 2050 in the face of global warming and demand for new housing, warned Sir James Bevan in March 2019 CEO of the Environment Agency. The *Daily Mail* reported on 23rd July 2022 that: 'After rivalling temperatures in the Sahara last week, parts of Britain are now drier than the African desert.'

OFWAT has been active in encouraging more collaborations between companies and awarding funding for novel innovation projects which AW has been part of including using nature-based solutions such as Seagrass; or AI for smarter tanks to monitor water storage flows in water towers; or what are called NAVs (new appointments and variations) and working with smaller providers on new developments.

Another regulator the Drinking Water Inspectorate sits beside OFWAT and the Environment Agency monitoring the industry and holding it to account. The National Infrastructure Commission also helps to plan for the future with long term investment in the supply infrastructure.

As part of the sector's Public Interest Commitments (PIC) set in 2019, water companies have pledged to triple the rate of leakage reduction by 2030 enabling action to be taken faster.

Given the 'click bait' view of the industry by the press both local and national I have spent the year generating social media content distributed through Twitter, LinkedIn and press releases to highlight how AWs highly skilled key workers go about their jobs across the different teams in the business. These podcasts cover teams working on repairs or data analysis or water quality or asset management and sponsorship of the annual regenerative Herts farming event #Groundswell22 which ministers now regularly attend too. Nitrates from fertilisers can leach into rivers impacting water quality but agricultural experiments like planting all-year round and winter cover crops are proving valuable.

This mission to explain has extended to the environment and our rivers and even how citizens science projects led by academics on the river Chess in the Chilterns in association with Affinity Water are helping to monitor river flow. AW relies on water abstracted from chalk aquifers and has 10 per cent of the World's globally rare chalk streams in its area approx. twenty-four in all. They are rarer than some endangered species of animals such as the Black Rhino and immortalised in stories such as *Watership Down* and *Wind in the Willows*.

The history of the industry is fascinating and needs to be appreciated. Telling it in a way that is accessible to a general audience when so much of it relies on complex data analysis and dense strategy papers has been worthwhile and challenging. A series I produced with AW's long service history man told its story in fourteen objects from hand drawn maps to steam engines now in a local museum and those Victorian water towers. Amazingly listening for leaks is still a major way of locating them with highly skilled workers called 'leak loggers'. There is a proud history of all branches of engineering in the water industry.

AW's history goes back 170 years with water towers and reservoirs that civic dignitaries in their ceremonial robes would declare open. Water was a source of pride to local communities and AW has the oldest piped water supply outside London. The Folkestone supply dates to the Middle Ages and some canny thinking in how to take water uphill which fascinates historians and archaeologists!

As a company AW is celebrating its tenth anniversary this summer but over its longer history has encompassed hundreds of smaller water providers.

Big efforts have been made to tell customers in financial need what schemes there are to help them to pay. There is much emphasis on this driven by the regulator particularly during the pandemic and now the cost-of-living crisis too. There is also a big push on informing customers how to register to become a Priority Service User to ensure their supplies are maintained if they have health or specific qualifying issues.

But as the hot weather continues more will be without water, hose pipe bans are already being brought in and the costs of supplying bottled water to customers while repairs take place will rise. Farmers too will face escalating energy costs as they pump water onto their dry crops. The fire service also relies on water, as drought conditions are putting huge pressures on the service not experienced since the Second World War the London Fire Service has said.

This summer will be a defining time for the water industry and will speed up calls for major reform in some way although even Labour has said it will not nationalise the utilities.

The closeness of my work to the front line of AW key workforce has educated and informed me of how little understood this essential industry is by both the public and stakeholders and opinion formers. It deserves a higher level of understanding. But like much of modern Britain that relies on infrastructure constructed one hundred years ago 'patch and repair' is the accepted pathway of modern Britain. Too expensive to renew and not a priority when government eyes have been elsewhere with Brexit dominating the inboxes of Ministers and Shadow ministerial teams. The regulated state has attracted little attention apart from when proposals are made to deregulate and abandon the quangos and regulators, as seen in the recent Tory leadership race, which plays into the hands of those profiting from these industries.

A further catalyst for change in the water and wider energy industry will come as the Net Zero by 2030 agenda progresses within companies and the sector, perhaps the cost of which may lead to mergers. Some companies are further ahead with this than others. Now the sector is in the second year of its AMP7 (Asset Management Period) planning objectives from 2020 to 2025 and waiting for further clarification of what its Price Review (PR) 2024 will have on them to provide better outcomes for customers, the environment and wider society. PR19 gave companies little room for flexibility they claimed.

Crisis planners recognise the importance of water supplies. Major energy failures and outages would impact water supplies and lead to health concerns after just a few days according to experts who sit on the Government Sage Committee.

Its undoubtedly a critical time for the water industry and this hot summer will help to define its future as the public and stakeholders experience shortages and read such damning headlines in the national press and broadcast industry.

In July 2022 the Environment Agency convened its drought management group and warned that many of the Country's 500 reservoirs are at half capacity. It wants more companies to implement hose pipe ban. In the same week The Times newspaper reported that water companies made 2.8 billion in combined operating profits last year and £16.8 billion in dividends has been paid to shareholders in the past eleven years.

The World Economic Forum has set up a Commission on water. It was launched in May this year as the most pressing issue the World now faces.

<https://www.weforum.org/events/world-economic-forum-annual-meeting-2022/sessions/press-conference-the-new-economics-of-water-launch-of-global-commission>

Boni Sones OBE

August 2022

Discussing legal liability for environmental harms in the French Court of Cassation

The law governing liability for complex types of environmental damage, including air pollution and exposure to carcinogens such as asbestos, has been evolving rapidly in several countries. Claims which would once have failed because of the difficulty of showing a causal link between exposure and disease have been allowed to proceed through the use of more flexible legal tests. In March 2022 a conference was held in the Grand Chamber of the Court of Cassation, France's highest civil and criminal court, in Paris, to discuss these issues. Those taking part included epidemiologists, judges and lawyers of the Court of Cassation, and legal experts from several jurisdictions including CBR Director Simon Deakin. The seminar was part of a series on 'Fundamental Notions of Legal Liability in the Light of Environmental Mutations', organised by Professor Béatrice Parance of the University of Paris 8 Vincennes St-Denis and Professor Judith Rochfeld of the University of Paris 1 Panthéon Sorbonne.



The Grand Chamber of the Court of Cassation, Paris

Simon's presentation ('Liability for complex harms at common law') explored the different approaches to causation in statistics and law. The approach of the English and Scottish courts has been to reject claims based on epidemiological causation alone, a somewhat more restrictive line than that taken in most civil law countries. Epidemiology takes a broadly probabilistic or non-deterministic approach to determining causation; the common law, by contrast, uses a deterministic cause-effect model, implied by the idea of necessary (but-for) cause, which, some exceptional situations aside, poses a very high barrier to individual tort claims. Simon argued that 'in cases of toxic torts, epidemiological causation should be regarded as sufficient to create a presumption of liability, requiring the source of the emission to disprove liability (a reverse burden of proof rule). This would represent progress for the law of tort'. The presentation can be viewed online at: <https://www.courdecassation.fr/agenda-evenementiel/faut-il-modifier-lapprehension-du-fait-generateur-quels-changements-connaissent>.



CBR Director, Simon Deakin

Dissemination Highlights

Understanding Business-University Collaborations

Valuable interactions between businesses and universities in the UK take many forms beyond spinoff and licensing deals, but a lack of capacity by firms and information from universities is holding back even greater collaboration, according to a CBR report published in March 2022.

[The report](#) by the National Centre for Universities and Businesses (NCUB) and the [Centre for Business Research \(CBR\)](#) at Cambridge Judge Business School found that people-based interactions are the most common form of business-university interaction at 45%, followed by problem-solving interactions at 30%, commercialisation at 24%, and community-based interaction at 23%. Even within the commercialisation category, use of academic publications was most common at 19%, while spinouts and licensing were only 9% and 2%, respectively.

The report was based on an online survey of 3,823 companies in 2020-21. It found that there is much untapped potential for the university sector to work further with business. Collaboration is curtailed by companies' lack of capacity to tap this important resource and by a lack of information from universities on how they can help businesses.



Alan Hughes

'A key finding of the report is that interactions take multiple forms that are far more frequent than spinoff and licensing transactions, and the vast majority of businesses interacting in these multiple forms find benefits that meet or exceed their expectations', said report co-author Alan Hughes, Director Emeritus and Senior Research Associate of the CBR, as part of an [online NCUB webinar panel today to introduce the report](#).

'But the survey results also make clear that it's lack of capacity on the part of companies, and a shortage of information provided by universities – rather than the costs of interaction – that is holding back greater collaboration with the UK's university sector, and this is costing the economy in terms of innovation and competitiveness. This issue could be addressed by businesses devoting more attention and staff to building their capacity for interactions with the university sector. This would be time and money well spent in terms of potential rewards and impact on company performance. "Universities could also devote more attention to informing companies about the support that can be provided, and business schools have an important role to play in this'.

Among the more detailed findings, the survey showed that companies of all types and sizes are ‘lacking in the ability to search for external knowledge from universities and invested only modest effort and time in integrating this knowledge into their companies.’ More than half of companies with at least one interaction with universities said that lack of resources was the biggest constraint on further interaction, followed by difficulty in identifying a university partner to help their businesses. The impact of COVID-19 caused major disruptions to university-business links, with more than a third of firms reporting that it had impacted their interactions with universities. If the destructive impact of the pandemic on collaborations persists it will harm future economic growth and business performance.

The 115-page report – *The Changing State of Business-University Interactions in the UK 2005 to 2021* – is co-authored by Alan Hughes of Imperial College Business School and the CBR at Cambridge Judge; Michael Kitson, Assistant Director of the CBR; Ammon Salter of the University of Bath; David Angenendt of Technical University of Munich and the CBR; and Robert Hughes of the CBR.

Other findings of the report include:

- UK businesses interact with universities on a global scale, not only locally or regionally. ‘Knowledge exchange interactions operate over multiple regional, national and international geographies.’
- Individual academics and individual professional staff at universities play a big role in starting and sustaining collaboration with businesses. ‘Personal contacts are important mechanisms for university-company interactions.’
- The diversity of university types in the UK higher education sector is a ‘strength of the system’, because companies interact with large research-focused universities as well as smaller and more specialised institutions.
- Companies that interact with universities rely on a diverse spectrum of academic disciplines.



Michael Kitson

The report also identified a key role for business schools. ‘The UK higher education sector, including business schools, play a role far broader than only in the well-publicised technology sector,’ said co-author [Michael Kitson](#), Associate Professor in International Macroeconomics and Director of the MBA Programme at Cambridge Judge Business School, and Assistant Director of the CBR. ‘Developing new technologies are of course important, but the survey shows that a focus only on technology risks businesses and universities alike missing out on organisational and other business-related activities that benefit companies across the UK’.

The Political Economy of Health in Lebanon

A [report](#) co-authored by researchers from the CBR as part of research funded by the Global Challenges Research Fund recommended that health services in Lebanon be given far greater priority in economic recovery and development policies by donor governments.

The report outlines how political decisions have had a detrimental impact on the health and wellbeing of the Lebanese population, and how the past two years have been especially turbulent given the huge explosion in Beirut in August 2020, the COVID-19 pandemic, and protracted humanitarian issues in neighbouring Syria, which has led to many Syrian refugees seeking sanctuary in Lebanon. The researchers conclude that Lebanon's current reliance on the private sector for most of its health care services 'is now at an end' as it is 'unable to respond to health crises or withstand economic shock; the report calls instead for a new health care model that balances public and private sector provision.

'(The report) takes a core area of responsibility of the modern state – the health of its population – and tracks how political paralysis and elite insouciance have left the health sector fragmented and devastated,' according to the foreword to the report, written by James Watt, Chairman of the International Advisory Board, Research for Health in Conflict – Middle East and North Africa, and former British Ambassador to Lebanon. 'The report deserves full attention from policymakers both in government and among international donors.'

The report, entitled "[How Politics Made a Nation Sick: The Political Economy of Health in Lebanon](#)", was led by researchers at King's College London, the University of Cambridge and the American University of Beirut. Researchers involved in the report associated with the University of Cambridge included [Dr Adam P Coutts](#), Senior Research Fellow at the Department of Sociology; [Professor Simon Deakin](#), Director of the CBR; and [Dr Adel Daoud](#), Research Associate of the CBR.

Healthcare in Gaza

A report on health care in Gaza by the highlighted the formidable challenges facing the sector and sets out a pathway for policy makers to follow. The report by CBR Research Fellow [Dr Mona Jebri](#) calls for creating a trusted technical collaboration platform to encourage the exchange of information to improve health care, as well as coordination of data production, resources, and expertise among the various health providers in Gaza. The report – entitled "[The Political Economy of Health in the Gaza Strip \(Occupied Palestinian Territory\)](#)" – also recommends unifying administrative elements of the Palestinian Ministry of Health, including salaries and employment scales.

'Palestinians' right to health is highly politicised', the report says. 'The health sector in Gaza has emerged within the constraints and agendas of several occupations and internal conflict. Consequently, the Gaza health system has been shaped by a context of "de-development" – a past and present that is characterised by fragmentation, negligence, marginalisation and dependency, and which continues to affect the people of Gaza.

The 138-page report says that owing to this complex legacy, it is difficult to achieve active collaboration among all stakeholders and political powers, but deadlock in achieving a long-term solution should not hold back measures that could be taken to improve health care in the short term, which also include:

- Developing a national manifesto of vision for reform, supervised by a unified Palestinian Ministry of Health
- Budgeting for the health sector in a practical way that takes into account disruptions in this area of conflict
- Limiting duplication of projects and services
- Updating a legal framework for the health sector that is based on modern standards of health consistent with the Universal Health Coverage and Sustainable Development Goals.

In his foreword to the report, the Director of the Centre for Business Research, Professor Simon Deakin, wrote:

‘This is an important report, in terms of its subject-matter, its approach, and its findings. Health is a public good, and how well it is delivered depends on there being an effective public space. In contexts affected by conflict, that cannot be taken for granted. In the case of Gaza, it is not simply the physical consequences of war and occupation that have to be taken into account. In an unstable geopolitical environment, organisations and institutions are constantly being undermined. The report is the result of intensive research and analysis. The author has leveraged her knowledge of the Gazan situation with rare access to actors at all levels. Through in-depth interviewing, she captures the lived experiences of policy makers, officials and carers. Their voices, normally beyond the reach of an external audience, can now be heard. There is a dearth of systematic research on Gazan society and institutions. This report is a dispassionate account, which is sobering in its implications. In detail, and with evidence of a kind which is all too infrequently available, it offers a diagnosis, and the beginning of a way forward, for a situation which those who read it will surely regard as unsustainable.’

The IMF and the Road to a Green and Inclusive Recovery after Covid 19

A CBR report published in July 2022 examined the scope for IMF involvement in Green, Resilient and Inclusive Development (GRID) objectives, building on how these objectives have been operationalised by the World Bank. The report was written by CBR research associates Alexander Kentikelinis, Thomas Stubbs and Bernhard Reinsberg

(<https://www.cbr.cam.ac.uk/wp-content/uploads/2022/06/kentikelenisstubbsreinsberg-cbrreport.pdf>).

Unlike the World Bank’s focus on sectoral projects and development lending, the IMF’s mandate is to underpin global financial stability by assisting countries with unsustainable balance of payments positions, including through lending programs. While these seek to bring about macroeconomic stability, they also have clear development implications, as the policy conditions attached to them have important consequences for borrowing countries’ economic systems, income distributions and political economies. In line with the remit of IMF lending, green issues refer to the likely impact of IMF programs on the environment and meeting climate change adaptation and mitigation targets; resilience examines how IMF programs affect preparedness vis-à-vis different types of risk, as well as the availability of sustainable financing of basic social services; and inclusiveness captures the interplay between the various IMF-mandated reforms and poverty and inequality.

The report meets three inter-related objectives. First, it presents evidence on the recent track record of the IMF in supporting GRID issues. Second, the report analyses the scope of the IMF's mandate, how the IMF compares to other international financial institutions in its attempts to develop a GRID orientation, and how GRID issues can be mainstreamed in IMF practices. Finally, the report elaborates on a comprehensive assessment framework that can underpin the ex-ante impact assessment of IMF lending programs on GRID issues.

Research Highlights

The Gavin C. Reid Prize for the Best Paper by an CBR Early Career Researcher

Thanks to a generous donation, the CBR has established the Gavin C. Reid Prize for the Best Paper by a CBR Early Career Researcher. The prize is named in honour of Professor Gavin C. Reid, a long-time supporter of the Centre and currently one of its Senior Research Associates. The £400 cash prize, to be awarded annually, is open to early career research staff and research associates of the Centre for Business Research.



Gavin C Reid, Honorary Professor in Economics & Finance, University of St Andrews, and Senior Research Associate, CBR, Cambridge University

The 2022 Prize is jointly awarded to to Dr. Mona Jebril, for her report ‘The political economy of health in the Gaza strip’ ([cbr-special-report-the-political-economy-of-health-in-the-gaza-strip.pdf](https://www.cbr-special-report-the-political-economy-of-health-in-the-gaza-strip.pdf) ([cam.ac.uk](https://www.cam.ac.uk))) and to Dr. Helen Mussell for her paper ‘Reclaiming the relational ontology of the fiduciary and exploring relational ethics’ ([wp534.pdf](https://www.wp534.pdf)), published in the *Journal of Business Ethics* under the title ‘Theorizing the fiduciary: ontology and ethics’, <https://doi.org/10.1007/s10551-022-05235-6>.

Gavin writes: I am delighted by these two papers, which have been carefully peer reviewed, and will receive the prize in my name in 2022. They epitomise the high calibre of qualitative analysis that the Centre for Business Research fosters, under the leadership of Professor Simon Deakin.

I. Health in the Gaza Strip, by Dr Mona Jebril

Political economy is of course the root discipline of modern economics. However, the latter has narrowed its scope in the last fifty years, taking it away from its foundational principles, propounded in the French and Scottish Enlightenments. These include the analysis of contemporary issues, especially with regard to the human condition. This remarkable working paper by Dr Mona Jebril of the CBR takes us right back to these fundamentals with a most important contemporary issue: health in the Gaza Strip.

The conceptual assumptions of this work are, first, that armed and social conflict are intrinsically linked, and second, that interstate conflicts are conceptually and practically connected. Within this conceptual framework, Dr Jebril analyses with skill and rigour Gaza’s health sector, predicated on diverse literatures, but, above all, enlightened by fieldwork. This involved conducting semi-structured

interviews with a spectrum of health stakeholders, including policy makers at one end of the spectrum, and family members who care for patients, at the other end.

Amongst the inevitable abbreviations and acronyms of this work are two key Arabic terms: 'wasta' meaning nepotism, and 'al-ghadab' meaning 'anger or emotional upset'. Through all the excellent technical developments reported by Dr Jebril (e.g., on fieldwork instrumentation), and political economy analysis (e.g., of barriers and opportunities in health coverage) these two Arabic terms are ever present in the mind of the reader.

The data acquisition is handled with skill, both in terms of techniques (e.g., instrumentation, sampling, interviewing, reporting) and the ethics of fieldwork. Many parties will want (and should want) to read this enlightening, and in many ways chastening, research report. It points to 'illusions of reform' in a stark fashion, which alas fail to rise to the humanitarian goal of maintaining the health and dignity of Gaza's people. All who read this report will be informed, and moved, by Dr. Jebril's analysis. It reminds us that political economy is not exclusively about businesses. It is also about people, and indeed a people.

II. Reclaiming the Relational Ontology of the Fiduciary and Exploring Relational Ethics, by Dr. Helen Mussell

This is a rigorous, thorough, and original paper. While rooted in law, including the ethics of law, it is a thrilling intellectual journey through multiple disciplines, including economics, law, ethics, philosophy, politics, and gender studies, to name just some of the central ones. As such it is an inter-disciplinary *tour de force*.

The central concept in this paper is the *fiduciary*, which is the legal term for a person or entity that, in acting for another person or entity (the *beneficiary*), has the presumed role of acting with discretion and expertise. The key question which this paper asks, if I may so vulgarly put it - for the presentation of its argument is both subtle and rigorous - is as follows. What is the nature and extent of the fiduciary's obligation, especially in ethical terms, to the beneficiary, in the discharge of duties towards it? Of course, this immediately provokes interrogation of the question itself, like: what is an obligation, and are such obligations compatible with any thoroughgoing ethical systems? That it seeks such an intellectual prize as successfully broaching, if not completely answering, such questions is one of the many merits of the paper. It is bold indeed.

While the scope of the paper is essentially theoretical, its implications are by no means confined to theory. Its areas of application are diverse and manifold. For example, the fiduciary/beneficial relationships can be related to employer/employee, trustee/beneficiary, guardian/ward, lawyer/client, financial advisor/investor, etc., to name just a few possible real-world examples. The paper aims for an ideal fiduciary, which is open and evolving in its relationships, with, at its core, a fluid mix of interdependence and power dynamics. This is a big vision. It concludes by suggesting the adoption of an Ethics of Care, which is commended to the reader as the best way of steering - if this be possible - future fiduciary practice.



Mona Jebril, Research Associate, Faculty of Education, University of Cambridge, and Research Associate, CBR

Mona writes: thank you for awarding me the Gavin Reid Prize for my report: [The Political Economy of Health in the Gaza Strip \(Occupied Palestinian Territories\)](#). This research meant a lot to me on both the academic and personal levels. Academically, the report discusses original themes and offers important knowledge contributions to the significantly under-researched context of the Gaza Strip. It explores the complex situation for health in the Gaza Strip under occupation, and how this is impacting people's lives in this area. The analysis of the report draws on 14 in-depth semi-structured interviews which I conducted with policy makers, health officials and carers for patients in the Gaza Strip. Using these and the scarcely available literature on the political economy of health in Gaza, the report offers an analytical perspective into the historical legacies, contextual and structural factors and the main actors and stakeholders of the health sector in Gaza, as well as outlining some of the key characteristics of the bargaining processes, key values and ideas, and the challenges of decision making and implementation in the health sector in Gaza. The report concludes by outlining some of the main barriers, and opportunities for reform, putting forward a few recommendations which are necessary to improving the situation for the Gaza health sector. On the personal level, since I am a Palestinian who lived and worked in Gaza for more than 22 years, I found this research meaningful and very inspiring to me. It enabled me to understand the voices and experiences of the research participants on a deeper level, and to share this understanding with a wider audience, as the report was featured prominently in academic, policy and media outlets. Also, to communicate themes from the research, I took proactive steps towards academic public engagement. For example, I produced several cultural outputs, including, a theatrical play, podcast episodes, research GIF and animations, a historical game, a critical comic script, a symbolic photography, and a poetry album. I also participated in three Cambridge , Festivals which took place in 2021, and 2022.

I am really pleased that the success of the report has wonderfully been culminated by the award of the CBR Gavin Reid Prize! I invite you to read my report on the Political Economy of Health in Gaza through double clicking on this [link](#). The report also includes an insightful foreword by Professor Simon Deakin. You can also read our paper on reversing de-development in the health sector in Gaza [here](#), and a policy brief which discusses new pathways to reforming the health sector in Gaza [here](#).

Thank you very much!



Helen Mussell, Lecturer in Organizational Studies and Director of Online Learning, Cardiff Business School, Cardiff University, and Research Associate, CBR

Helen writes: I am delighted to have been awarded the Gavin C. Reid prize and am very grateful to all who work hard to make this prize possible. Firstly, thanks are due to Professor Reid for his kindness, generosity, and thoughtful recognition that receiving such appreciation for one's research is extremely encouraging and uplifting. My thanks also to Professor Simon Deakin, not only for his Directorship of the Centre for Business Research and all the support it brings, but also for introducing me to the legal concept of the fiduciary, which is the focus of my paper. The seed idea for this particular piece came from a conversation Professor Deakin and I had over a decade ago regarding care in organizations. Without that important pointer, this paper would not have been possible. Likewise, I am indebted to Professor Tony Lawson, also a Research Associate at the Centre for Business Research. My knowledge of the ontological analytical approach I use in the paper was only possible with his guidance and support of my research. I am very grateful to all of you.

A few words on the paper and its development. As mentioned above, the introduction to the widely used legal concept of the fiduciary took place during a conversation concerning how caring features in legal contexts within organizations. My work at the time was focussed on investigating initiatives in organizational ethics using a relatively new ethical framework known as the Ethics of Care, and the fiduciary was highlighted because it is often referred to as a duty of care. Recognising that research on this notoriously difficult concept had the potential to develop into a separate and large project, the idea was temporarily put to one side. The idea has since been returned to and developed over a series of papers and chapters, with this paper being the third, and with more planned and in progress.

The core of the argument in the paper is evolved by developing an ontological analysis of the fiduciary – which is a legal device for safeguarding the relationship between two parties – and subsequently drawing conclusions as to a suitable ethical framework by which to explain and practice the fiduciary. By showing that the fiduciary is underpinned by a relational ontology – or a view of social reality and agential behaviour as interconnected, interdependent, and other-regarding - and by tracing the historical evolution of the concept thereby revealing its core relationship characteristics, an ethical framework also premised on a relational ontology (the Ethics of Care) is shown to be most appropriate for underpinning fiduciary interpretation and practice.

The reason this is an important argument to advance is because the ethical component of the fiduciary has been increasingly diminished via the use of legal and finance theory that draws on a fallacious atomistic and individualistic ontology, as opposed to a relational one. This has far-reaching implications considering the widespread and deeply embedded use of the fiduciary in our financial and legal systems. The paper is therefore intended to assist in stopping this ethical erosion by revealing the ontological errors underpinning the economic and legal theories used to interpret and practice it, show how they misalign with the relational ontology of the fiduciary, and outline a suitable ethical framework for future fiduciary practice.

The Diffusion of Practical Mathematics and Economic Growth in Pre-modern Europe: Major International Prize for CBR Researcher

Andrea Mina (CBR Research Associate and former Senior Research Fellow), with co-authors Raffaele Danna and Martina Iori, respectively Research Fellow and Assistant Professor at Sant'Anna School of Advanced Studies in Pisa, won the Best Paper Award of the DRUID 2022 Conference which recently concluded at Copenhagen Business School.

Their study '[A numerical revolution: the diffusion of practical mathematics and the growth of pre-modern European economies](#)' focuses on the role of knowledge transmission in history. It provides new and original evidence about the positive impact caused by the circulation of Hindu-Arabic numerals on economic growth in pre-modern Europe. The study builds on data about arithmetic manuals of the time, outlining how their diffusion in dedicated schools innovated commercial practices and transformed the economic systems of European cities.

The [DRUID conference](#) is considered one of the most prestigious global venues for studies on innovation and the dynamics of structural, institutional and geographic change, and attracts academics from around the world every year since 1995.

The paper shows that the accumulation of knowledge and its application to a variety of human needs is a discontinuous process that involves innovation and change. While much has been written on major discontinuities associated, for instance, with the rise of new technologies during industrial revolutions, other phases of economic development are less well understood, even though they might bring into even sharper focus the mechanisms through which growth is generated by the systematic application of human knowledge to practical problems. In this paper, we investigate the transmission of new mathematical knowledge from the 13th to the end of the 16th century in Europe. Using an original dataset of over 1050 manuals of practical arithmetic, we produce new descriptive and quasi-experimental evidence on the economic importance of the European transition from Roman to Hindu-Arabic numerals (0, 1, 2, 3, 4, 5, 6, 7, 8, 9). This numerical revolution laid the foundations for the commercial revolution of the 13th century and the diffusion of knowledge through organised learning had positive and significant effects on the growth of pre-modern European economies.



Andrea Mina (centre) with co-authors Raffaele Danna and Martina Iori (first and second left respectively) being presented with the Best Paper Award of the 2022 DRUID Conference at Copenhagen Business School

Contribution of CBR research to the REF

During the period of current and previous REF cycles, CBR research appeared in the following journals:

Discipline	Journal
Economics and Management	Academy of Management Review; British Journal of Industrial Relations California Management Review; European Journal of Political Economy; Economics Letters; Organization Science; Journal of Institutional Economics; Journal of Business Ethics; Corporate Governance: An International Review; Indian Journal of Labour Economics; International Business Review; International Journal of Innovation & Technology Management; Journal of Product Innovation Journal of Management Studies; Journal of Governance and Management; Journal of Institutional Economics; Journal of Comparative Economics; Review of International Political Economy; Research Policy
Sociology	American Journal of Sociology; Socio-Economic Review
Law	American Journal of Comparative Law; Journal of Law and Society; Industrial Law Journal; International Labour Review; Journal of Corporate Law Studies; Law and Development Review
Political Science	Governance: An International Journal of Policy, Administration and Institutions; Regulation and Governance; Politics and Governance; International Interactions; Review of International Organization
Medical and Behavioural Sciences	BMJ Global Health; Health Systems; Journal for Quality in Health Care; Nature Human Behaviour; Journal of Refugee Studies; Lancet; Sleep Disorders, Journal of Global Health

In addition, CBR research supported an Impact Case study for submitted by the Cambridge Faculty of Law for the 2021 REF exercise, *Building a Global Evidence Base for Labour Market Policies*, which was based on work carried out by Zoe Adams Louise Bishop and Simon Deakin in connection with the CBR Leximetric Datasets (<https://www.repository.cam.ac.uk/handle/1810/263766>).

Project Reports

The Cambridge Corporate Database

Project team: Andy Cosh and Giorgio Caselli

Funding: Cambridge Ahead consortium, Barclays Bank and the Greater Cambridge Greater Peterborough LEP

Project dates: 2014-

Overview

This project concerns the modelling of the growth of businesses in the local region and providing the data for Cambridge Cluster Insights. It also involves feeding the results into a regional spatial forecasting model used by researchers at the Department of Architecture at the University of Cambridge to study infrastructure constraints and solutions for the regional economy. The various elements of the project are described below.

Cambridge growth analysis

Cambridge Cluster Insights

Since the project group's formation, we have been concerned with establishing an authoritative analysis of the current scale, make-up and growth rate of economic activity in the Cambridge city region, defined by a 20-mile radius around Cambridge. We were commissioned by Cambridge Ahead to create a dashboard to monitor growth in Cambridge using the original Cluster Map created by Sherry Coutu and Trampoline Systems as a starting point. We began by updating and re-verifying the original Cluster Map data, adding data from sectors outside of high tech and extending the coverage to all companies, however small; and then putting in place curation to keep it up to date. For the first time, there is now a sound and robust measure of the Cambridge economy, and how it is growing, but it is also possible to wind the clock backwards to see how Cambridge has been growing in the past. The Cambridge Cluster Insights platform, known initially as Cambridge Cluster Map, was officially launched in July 2016 and is a dataset of information on over 26,000 businesses in the Cambridge city region. Using the new methodology, it specifically monitors the growth of Cambridge-based companies, in terms of their global turnover and global employment, and tracks the number of Cambridge-active companies, and public and charitable sector research organisations.

Cambridge-based companies are those with their primary trading address within this area, or those that do not give a primary trading address but have a registered office in this area. Cambridge-active companies are those who have neither their registered office, nor primary trading address in the Cambridge area but do have a trading address in the area that we have identified, examples being Amazon, Apple and Microsoft. Non-corporate Knowledge-Intensive (KI) organisations are those research institutions that are located in the defined region which are neither companies, nor partnerships. Examples of these are the British Antarctic Survey, the MRC Laboratory of Molecular Biology and the Wellcome Sanger Institute.

Cambridge Cluster Insights has been refreshed approximately twice a year and will be updated with wholly new data annually. The last update was published in March 2022 and captures the impact of the first year of COVID in England. A new and improved Cambridge Cluster Insights platform was launched in September 2019. This new platform, which covers eleven years of data for the Cambridge

city region as well as each of the six local authority districts in the Cambridgeshire and Peterborough Combined Authority area, allows for a dynamic, interactive and timely analysis of the business population in the local region.

The work underpinning Cambridge Cluster Insights is disseminated locally, nationally and internationally. For example, our approach and key findings were presented at a series of workshops and seminars organised by a number of research institutions in China, including Liaoning University, Shenyang Institute of Technology, Shenyang University and Communication University of China.

Growth data

Using unique growth measurement methodology, the project has so far produced seven consecutive sets of growth data for the Cambridge city region; in February 2016, January 2017, May 2018, April 2019, March 2020, March 2021 and most recently in March 2022.

The last set of data shows that corporate growth in the Cambridge city region has been robust over the past decade, but fell from 4.0% in 2019-20 to 1.8% in 2020-21. The latter is still a significant rate of growth considering the scale of the challenges brought about by the COVID pandemic. The slowdown in employment growth over the past three years is due to a weaker performance amongst non-KI sectors. Overall, KI companies have maintained a high rate of employment growth, which has offset the decline in employment amongst non-KI companies. Information technology and life sciences are the largest and most dynamic of these KI sectors, with a strong performance also through the first year of the pandemic. The UK Government's furlough scheme has reduced the impact of COVID on employment over this period. This is, in part, reflected by the relatively worse performance of turnover over the past year (0.7% growth against a figure of 1.8% for employment).

The number of people employed in universities and non-corporate research institutions in the area (37,000 employees) has also continued to grow steadily, making the area one of the largest concentrations of KI employment in Europe.

At the same time, there are signs that employment created by new business start-ups does not exceed the loss of jobs due to company closures and this imparts a small, but negative, impact on growth. There are also signs of companies moving out of Cambridge, possibly in response to the rising cost of doing business in the city.

Overall, these figures demonstrate not only the importance of Cambridge to its wider region, but also the value it offers on a national scale as a net contributor to the UK. As cited by Centre for Cities, Cambridge was the third fastest-growing city for jobs in the country between 2004 and 2013.

The Business Board (formerly Greater Cambridge Greater Peterborough LEP)

The CBR was commissioned to create a company database for the 14 local authority districts making up the Greater Cambridge Greater Peterborough (GCGP) Local Enterprise Partnership (LEP, now The Business Board). This work has been completed and the database includes 83,000 LEP-based companies and limited partnerships with their employment and turnover over the last decade. Of these, about 52,000 were alive at the end of the 2020-21 financial year and together represented employment of 502,000 and turnover of £87.7 billion. The analyses carried out examine the sectoral composition and growth of each of the local authority districts. Data for the eight LEP districts outside the Cambridgeshire and Peterborough Combined Authority area are provided on Cambridge Cluster Insights only up to 2017-18.

Greater Cambridge employment updates

CBR research has been helping local councils and other authorities in the local region to provide support to businesses during the COVID-19 pandemic. This research comprises a series of updates, commissioned by the Greater Cambridge Partnership and Cambridge Ahead, which bring up-to-date information about what is happening to corporate employment in the Greater Cambridge area that would not otherwise be available. It provides policymakers with robust and timely data on businesses and sectors in the area that can guide COVID recovery strategies and future investment plans.

Our latest update was completed in June 2022 and captures the impact of the second and third COVID lockdowns in England as well as the coming out of lockdowns. The picture is one of continued and faster employment growth in Greater Cambridge during the last year as businesses learn how to live with COVID. This faster employment growth was driven by a strong performance of KI sectors, whilst non-KI sectors showed more modest growth. Life sciences and information technology, the two largest KI sectors in the area, saw employment growth accelerating in the year preceding Putin's war despite the uncertainty over the unfolding of the pandemic. By contrast, we find that employment growth fell in six of the nine non-KI sectors. Our analysis also reveals that turnover resumed its pre-pandemic pattern, broken only by the existence of the furlough scheme, of showing a higher growth than employment.

Economic forecasting

We are working with the local authorities to take their current economic model input data and add local understanding to it by using local business and sector-specific expectations rather than national ones. We are seeking to discover what businesses think future growth pressures will be, and what their growth might be if those pressures were better managed, in order to prioritise the infrastructure initiatives that will need to be taken. Creating such a bottom-up regional growth forecast has never been attempted before, and we have a great learning curve to get round to do it, but it should be very powerful when completed.

For example Cambridge has, with Marshall and its supply chains, a large aerospace component in its economy so the growth expectations of the aerospace sector will feature strongly in the local forecast. Where this breaks down though is that the national forecasts will be dominated by what Rolls Royce's and BAE's growth expectations are, which could be very different from Marshall's.

A survey of the largest companies in the Cambridge area has been carried out. The survey focuses on three aspects: the connections between the Cambridge companies and the rest of the UK economy; local constraints on their growth; and their estimates of their sector's growth over the next five years. It also asks their opinions about their impact on the economy, government policy and the impacts of Brexit on their growth. This survey allows for a bottom-up forecast of how much these companies think their sectors will grow over the next decade. In a nutshell, the survey results suggest that travel to work problems, along with the high cost and limited availability of housing, are affecting recruitment and retention of staff while impinging on productivity. These problems are also identified by companies as major factors limiting their growth in the Cambridge region. Despite these constraints, companies remain quite optimistic about their growth prospects, but are very concerned about Brexit.

A further supplementary technical task of comparing the actual and forecast growth rates of employment from the Councils' East of England Forecasting Model (EEFM) with CBR data is being undertaken. A similar comparison is being conducted with employment growth rates from the

Business Register and Employment Survey (BRES) and other labour market data sources maintained by the ONS.

Cambridgeshire and Peterborough Independent Economic Review

The Cambridgeshire and Peterborough economy is of national and international significance, comprising some of the fastest growing areas within the UK and internationally competitive industry, innovation and research. At the same time, it faces a number of challenges, constraints and imbalances that could hinder growth in the region if these are not properly addressed.

The purpose of the Cambridgeshire and Peterborough Independent Economic Review (CPIER) is to create a single strategic position to help the Cambridgeshire and Peterborough area consider the case for greater fiscal devolution and powers to unlock the delivery of major infrastructure. The CPIER is led by the Cambridgeshire and Peterborough Independent Economic Commission (CPIEC) and is co-funded by the Cambridgeshire and Peterborough Combined Authority, The Business Board and Cambridge Ahead.

Drawing on the corporate database as a unique source of information for businesses in the Cambridgeshire and Peterborough area, the CBR produced a number of analyses to support the work of the CPIEC. These include novel and in-depth studies of the corporate anatomy, foreign ownership and ownership changes, business demography and specialness of the corporate sectors in the Combined Authority and in each of its local authority districts.

After the ground-breaking CPIER work, the growth data produced by the CBR are being used to inform the Local Industrial Strategy. Support was also provided to the Digital Sector Strategy for Cambridgeshire and Peterborough, delivered by Cambridge Wireless and Anglia Ruskin University, through the provision of a range of quantitative data and analyses. The Digital Sector Strategy was published in May 2019 and is considered a valuable contribution to the Local Industrial Strategy.

The benefits and impact of the Babraham Research Campus

We have been working with Cambridge Economic Associates, Cambridge Econometrics and Savills on a project commissioned by Babraham Bioscience Technologies Ltd and its campus partners (BBSRC and the Babraham Institute) to identify, capture and demonstrate the benefits and impact of the Babraham Research Campus.

As part of this work, we designed and conducted a survey of Campus companies to quantify the impacts they make in local, national and international ecosystems. The survey, which achieved an extremely high response rate of 74%, also allowed to assess the scale and type of investment received by Campus companies over time. Responses from the survey were combined with unique information from the CBR corporate database to carry out detailed analyses of companies located on the Campus against those on other business and science parks in the Cambridge region.

The outputs from the impact assessment study are being used to inform the future development of the Babraham Research Campus and the overall contribution it provides to the Cambridge and UK economy. The final report, along with an Executive Summary highlighting the key findings from the impact assessment study, was published in June 2020.

Progress

A number of activities were carried out in the period 1 August 2021-31 July 2022, including the following:

- Completed a new data draw of all companies located in any of the 14 local authority districts making up The Business Board area (formerly the GCGP LEP). The database, which includes over 90,000 companies and limited partnerships with their employment and turnover over the last eleven years, has been used to examine the sectoral composition and growth of each district and to perform a range of other analyses.
- Conducted a survey of the main non-corporate KI research institutions in the Cambridge region to gather their latest employment data.
- Updated Power BI code, data and related materials for Cambridge Cluster Insights, a unique source of information on over 26,000 businesses in Cambridge and its wider region. The platform is available on both the CBR and Cambridge Ahead websites.
- Conducted three employment update studies (October 2021, February 2022 and June 2022) that provide timely data on corporate employment changes in Greater Cambridge during the COVID-19 pandemic. The results of these studies, commissioned by the Greater Cambridge Partnership and Cambridge Ahead, were presented to the project's stakeholders in the month following the completion of each report and made available to the wider public via the CBR and Greater Cambridge Partnership websites.
- Compared the CBR data with employment growth rates from BRES and other labour market data produced by ONS, including the experimental monthly estimates of payrolled employees from Pay As You Earn (PAYE) Real Time Information (RTI) data. This source was first introduced by ONS in April 2020 to provide further insight into the UK labour market during the pandemic.
- Contributed, through the sharing of data and knowledge about businesses in the local region, to the updated *Employment Land and Economic Development Evidence Study* underpinning the Greater Cambridge Local Plan.
- Shared data and research to help local councils and other authorities in the Cambridgeshire and Peterborough area to provide support to businesses through the pandemic.
- Supplied data for *Cambridge Innovation in Numbers*, a set of statistics published by the University of Cambridge Business Partnerships team summarising the innovation performance of the Cambridge technology cluster.
- Provided data and feedback for the *Cambridge Ahead Housing Dashboard*, a quarterly publication designed to track progress in housing markets, homelessness and employment in the Cambridge region.
- Promoted our work via regular meetings with CSaP Policy Fellows, who are typically Directors or Deputy Directors from Whitehall or their peers in the devolved administrations and local government.
- Presented our work at quarterly meetings of the Cambridge Ahead Economic Planning and Housing Group (formerly the Regional Economic Planning Group)

- Disseminated our research findings through a variety of media, including news articles and press releases in the *Cambridge Independent* and *Cambridge Network*.

Outputs for The Cambridge Corporate Database			
Articles in refereed journals	4	Working papers	68 73
Other publications	80 81 82 83 84	Datasets	109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140
Workshops held	148 149	Conference papers given	158 159 160 161 162 163 164 165 166 167
Media and social media/other media	201 202 211 212 213 214 215 216 217	Mphil students	234 235 236
Training	250 251 252 253		

A Stock-Flow Consistent UK Macroeconomic Model for Policy Analysis

Project team: Ken Coutts, Graham Gudgin and Bill Martin

Project dates: ongoing

Overview

The project involves a team based at the CBR and in Ireland and Northern Ireland. The CBR team consists of Ken Coutts, Graham Gudgin and a PhD student Saite Lu based in development studies and Pembroke College. Colleagues on the island of Ireland are Professor Neil Gibson, Chief Economist for Ernst and Young Ireland and Jordan Buchanan is now Chief Economists at PropertyPAI Ltd Belfast. Professor Gibson and Mr Buchanan were formerly at the Ulster University Economic Research Centre where Dr Gudgin was Chairman. Both have elected to remain on the project in a voluntary capacity. Professor Gibson has recently been appointed Permanent Secretary at the Department of Finance in the Northern Ireland Executive and his future inputs to the project will be limited. Dr. Cam Bowie (no affiliation) is also member of the team with special reference to financial forecasting.

Progress

Work during the year August 2021-July 2022 consisted of three main strands:

1. Maintenance and updating of the CBR macro-economic model of the UK economy (UKMOD). Two rounds of data revision have been completed largely by our Ireland colleagues. These were an Autumn 2021 update incorporating the 2020 National Accounts Blue Book data revisions, and a Spring 2021 Provisional Update of 2019 data based on ONS Quarterly estimates and other revised data. Both are major exercises which keep the data-bases relevant for the most up to date forecast and scenario work. With the revised data, a process of equation revision also took place, as part of a continuous process of model improvement.

2. We have not published a forecast report since the referendum in 2016. The uncertainties caused by the Brexit Referendum result and most recently the Covid pandemic mean that short-term forecasts are dominated by somewhat arbitrary assumptions on business investment and household consumption initially around the impact of Brexit-related uncertainty and latterly on Covid. While Brexit-related uncertainties remain important, there is now three years post-referendum data to guide us what the economic impact of the uncertainties are likely to be. For Covid the uncertainties remain severe and it will not be until well into 2022 that we have enough data to assess the scale of the short-term economic impact

3. Work has proceeded further on the major extension of the CBR model to include a financial module (FINMOD) with a range of assets and liabilities for each sector. When completed this

will make the model into a full-developed stock-flow consistent system along the lines laid out in Godley and Lavoie's 'Monetary Economics'. Assisted by Dr Cam Bowie, we have a working model and a database of financial assets and liabilities. Further work is taking place on a set of behavioral equations for the FINMOD system.

4. We have continued to evaluate the impact of Brexit in order to input assumptions on the potential long-term economic impact of Brexit.

5. Graham Gudgin has been now a member of the Department of Trade Expert Modelling Group assessing the economic of trade agreements for the UK in 2021/22 and the knowledge and experience

gained from this year-long engagement will assist in improving trade-modelling aspects of the CBR macro-economic model.

Outputs for A Stock-Flow Consistent UK Macroeconomic Model for Policy Analysis			
Articles in refereed journals	12	Chapters in books	48 49
Other publications	86 87 88 89 90	Datasets	141
Consultancy Advice	192 193 194	Media and social media/other media	220 221

Policy Research Group

Project Leader: Kai Ruggeri

Dates: ongoing

The Policy Research Group has one simple view: appropriate use of evidence in policies will benefit population outcomes.

To demonstrate this, the team works on a series of projects across many domains of interest to psychologists, policymakers, and industry. In each case, they look for the best way to carry out high quality research that retains real-life value. As work is carried out, PRG constantly aims to translate insights into meaningful outputs, engaging with stakeholders and champions throughout. The ultimate goal within PRG is to generate relevant evidence for decision-making, whether informing leaders about complex challenges or simply engaging individuals with research outcomes in a way that speaks to the widest possible audience. In reaching for this goal, the research group hopes to offer improved outcomes for populations, particularly regarding their security, economic stability, and well-being.

The PRG is a small team of researchers and affiliates within the CBR that are focused specifically on behavioural insights in policy, particularly in linking experimental methods to real-world applications. Our primary contribution in CBR is through the [GCRF Research for Health in Conflict \(R4HC-MENA\)](#) project, with a handful of additional projects related to behaviour and decision-making.

Outputs for Policy Research Group			
Articles	10 30	Datasets	146
Workshops held	154	Media/Social Media/other media	233

GCRF Research for Health in Conflict (R4HC-MENA): developing capability, partnerships and research in the Middle and Near East (MENA)

Project leaders and researchers: Simon Deakin (CBR), Bothaina Attal (CBR), Brendan Burchell (Department of Sociology), Adam Coutts (Department of Sociology), Adel Daoud (Harvard University), Tomas Folke (Rutgers), Hannes Jarke (CBR), Mona Jebiril (CBR), Kai Ruggeri (Columbia University and CBR), Federica Stablum (CBR).

Dates: 2017-2022

Funding: ESRC (Global Challenges Research Fund)

Background

Two billion people currently live in areas of conflict and fragility, reflecting a rapid increase in wars, ethnic strife and other man-made disasters since 2010. The world is also experiencing the greatest forced migration crisis since the Second World War with 65.3 million forcibly displaced persons, 40.8 million internally displaced persons, 21.3 million refugees and a further 10 million stateless people. Across the Middle East and North Africa (MENA) region protracted conflicts in countries such as Syria and Libya, as well as Afghanistan, Iraq and Yemen, have led to dramatic increases of refugee populations in Turkey, Lebanon, the Occupied Palestinian Territories and Jordan. War-affected populations from these countries have undergone the epidemiological transition and therefore present new health challenges. In particular, the diagnosis, management and treatment of noncommunicable diseases present new challenges for domestic health systems, as well as for humanitarian and development aid providers. These challenges also threaten domestic health commitments to Universal Health Coverage and the Sustainable Development Goals. This new humanitarian-development-health nexus demands a unique research agenda radically different from traditional approaches that address health challenges in low-income countries with weak governments, institutions and a mainly communicable disease burden. Without proper research capacity to generate crucial evidence to inform health policy and care, it will be impossible for countries in the MENA region to plan for rational and affordable health systems, sound economic policy and more effective aid effectiveness.

The vision for the R4HC (Research for Health in Conflict)-MENA partnership, which was supported by the Global Challenges Research Fund, was to build sustainable research capacity in this region to address major health challenges arising from conflict, specifically cancer and mental health as key NCDs. R4HCMENA will build research capacity in four distinct areas: (1) conflict and health; (2) the political economy of health in conflict; (3) cancer; and (4) mental health research in regions of conflict. The building of research capacity was focused on training staff in a variety of theoretical and practical methods for studying these areas, as well as conducting and publishing research projects to build further capability and disseminate findings. R4HC-MENA aimed to enable lead countries in this region to grow and sustain research capacity that could critically inform aspects of health development that relate to armed conflict in the region. This would inform not only regional and international policy-makers, but also the development of affordable and equitable clinical models of care and pathways in complex NCDs such as cancer and mental health. R4HC-MENA was also intended to link together regional ministries and academic centres, and key international partners, to widen the research to policy translation, and critically inform the health development agenda in other regions affected by conflict.

The project was delivered through a consortium of universities led by King's College, London and involving Cambridge, Chatham House, and Imperial College, London along with several international partners (most in the MENA region), including the American University of Beirut, Hacettepe University, Bir Zeit University, and the King Hussein Cancer Centre, and Teachers College (Columbia University).

The CBR's contribution fell under the work streams on political economy (Brendan Burchell, Adam Coutts, Mona Jebiril, Bothaina Attal, Simon Deakin and Adel Daoud) and mental health (Tomas Folke, Hannes Jarke, Kai Ruggeri and Federica Stablum). The CBR collaborated with a number of other Cambridge-based departments including the Centre for Science and Policy (CSaP) and the Department of Sociology.

The project concluded in March 2022 with a conference in Cambridge, drawing together the results from the different work streams.

Aims and objectives

Political economy

The aim of the political economy work stream was to provide systematic and empirically grounded research capacity in the political economy of health in conflict in MENA countries, particularly around methods to examine the historical development and policies of their health systems, and the current role of government, the private sector, international donors and humanitarian agencies. The Syrian conflict and humanitarian crisis affected almost all countries of the MENA region but had particularly profound effects on Syria's immediate neighbours. This context of crisis required deepened knowledge about the political economy in the region, guiding the formation of new health policies particularly in NCDs such as cancer and mental health, which have been neglected within the policy response. Analyses of health in the MENA region highlighted the key problem of ignoring political economy approaches in understanding health concerns. In addition to the increasing NCD burden, the region has long suffered from a sustained under-investment in both public health systems and health research. Powerful actors with vested interests - governments, donors, NGOs and the private sector - shape national health agendas, including the formation of social protection systems. However, the research capacity to conduct programs that can inform evidence-based policies is severely lacking. The project addressed an urgent need to design and build multi-sectoral responses based on evidence generated within the MENA region. The project incorporated multidisciplinary research capacity approaches across policy sectors, such as ministries of development, labour, social affairs and public health.

Mental health

The mental health work stream aimed to build interdisciplinary research capability for mental health in both Palestine and Lebanon. Armed conflict and organised violence cause and amplify psychosocial stressors (e.g. poverty, malnutrition, inadequate housing and social isolation), which adversely affect people's mental health and wellbeing. Conflict-affected populations have been shown to have a higher prevalence of both common and severe mental disorders compared to the general population. Treatment gaps are widened especially in conflict affected areas of the MENA region due to inadequate infrastructure and human resources. An assessment of a refugee population in North and Bekaa region in Lebanon reported a significant 65 per cent impairment in daily functioning due to untreated trauma experiences and feelings of hopelessness in the individuals. The situation has been shown to be particularly grave for refugees and internally displaced persons, with treatment gaps reaching over 90 per cent in some areas. At a systems level, there is limited government spending on mental health (Palestine: 2.5 per cent; Lebanon: 5 per cent); minimal inpatient facilities, day care or residential facilities; a severe lack of staff and no mental health law. In line with the WHO's Mental

Health Action Plan 2013-2020, Palestine and Lebanon have begun to design and implement their nation's own mental health strategy by investing in delivering affordable and equitable mental health care for both domestic and refugee populations. Unfortunately, there is a lack of systematic mental

health research conducted in these regions, due to capacity issues. This projects works towards closing this gap.

Methods

Political economy

In the political economy work stream the project focused on training MENA and UK faculty to conduct systematic analysis of regional health policy and systems in conflict. This involved a contextual analysis looking at population movements, protection and asylum policies before and as crises unfold (e.g. implications of countries not signatories of 1951 Refugee Convention such as Lebanon), health system preparedness with regards to cancer and mental health, and more broadly related to Universal Health Coverage, as well as governance and organizational arrangements of healthcare for refugees and internally displaced persons (IDPs) as part of the humanitarian response. In collaboration with our MENA partners, the CBR team utilised existing Ministry of Health (Lebanon and Jordan), UNHCR and World Bank data. An audit of existing secondary data sets such as the Multiple Indicator Cluster Survey (MICS) and the Demographic and Health Surveys (USAID) was undertaken along with research training. The CBR team established contextual sensitive population surveys in collaboration with the work streams focusing on cancer and mental health to build research capacity around the use of multilevel regression models to capture the hierarchical nature of our sampling procedure (individuals living in households, in villages, in cities, in wider regions). The CBR also used matching procedures to reduce model bias and ensure comparability between the analysed cases.

Mental health

In the mental health workstream, the CBR assisted the Global Mental Health Lab, Teachers College, Columbia University in expanding their local capacity-building projects on depression care for both the Lebanese and the displaced communities in Lebanon, in line with Lebanon Ministry of Public Health's National Mental Health Strategy. Activities included the scaling up of Interpersonal Psychotherapy (IPT) and Interpersonal Counseling for primary care (IPC) among mental health providers in Lebanon; scaling up and evaluation of adoption of IMPACT collaborative care platform (University of Washington AIMS Center) in primary healthcare centers; and evaluation of IPT's effectiveness in treatment of common mental health conditions in these settings. The CBR team provided shared expertise in building research capacity in Implementation Science and Policy Research through delivery of certificate-based training workshops. Other deliverables encompassed the national dissemination of IPT in Lebanon, and setting up a local supervisory network and online collaborative platform. The CBR team also validated an Arabic version of the European Social Survey's Well-being questionnaire, and has evaluated the impacts of IPT implementation on the policy-level.

Progress

Political economy

Initial work scoping a political economy audit ('PEA') of the Lebanese, Jordanian and Turkish health systems was carried out and interviews were conducted from 2018 with key stakeholders in the region including health ministries, private sector health providers, the UN and NGOs in partner countries. Extensive drafts of the political economy reports on Lebanon and Jordan were completed in the course of the summer of 2019. Work continued on these reports in 2020 and they were largely completed by the end of September 2020.

Following her appointment in the autumn of 2018, Mona Jebril conducted a critical literature review on the political economy of health in Gaza and analysed it using MAXQDA software. After her submission of the PEA draft report in August 2019, Mona started preparing for fieldwork in the Gaza Strip via Skype and telephone from Cambridge. Mona used a snowballing method to reach participants. She conducted a number of in-depth interviews with policy makers, and health officials from different health sectors in Gaza including the Ministry, UNRWA, NGOs, and private institutions. She also conducted interviews with carers of patients in the Gaza Strip. Mona developed a journal of personal reflections on the interviews using Scrivener software. She then transcribed all interviews by herself. Mona coded the interviews using the MAXQDA software. The report was published in November 2021. Mona made numerous presentations of her work in a variety of forms (blogs, podcasts, animations and a play which was staged at the Cambridge Junction in July 2021).

The Political Economy workstream produced a parallel report on the political economy of health in Lebanon, *How Politics Made a Nation Sick. The Political Economy of Health in Lebanon*, published by Conflict and Health Research Group at King's College, London. The lead author was Professor Fouad Fouad of the American University of Beirut, and contributing CBR researchers included Adam Coutts, Adel Douad and Simon Deakin. The research draws on extensive interviews and data analysis. The report dissects the causes of the weak political response to a series of health crises in Lebanon and calls for a shift away from the current reliance on the private sector to deliver public health, arguing for a new model that better balances private and public provision.

Bothaina Attal joined the CBR as a CARA Visiting Fellow in 2020. She is a medical health professional and researcher previously based in Yemen. Bothaina carried out research on the governance of public health in Yemen, using the methodology developed for the R4HC project, and published a number of papers relating to the health situation in Yemen.

During 2020 and 2021 Simon Deakin worked on a paper exploring governments' response to Covid-19 using a theoretical framework which explores the role of the state in delivering public health and related collective good (see the report on the Research in the Theory and Practice of Governance project for further details).

Mental health

To meet R4HC aims for year one (2017-2018), the CBR's partners in the Global Mental Health Lab (Teachers College, Columbia University) trained mental health providers in Lebanon to meet competency criteria in Interpersonal Psychotherapy (IPT) as supervisors and providers; systematically collected outcomes of patients who accessed individual IPT treatment; piloted integration of the IMPACT collaborative care platform in a primary healthcare center in Lebanon; and have been engaging with stakeholders expand treatment in primary and specialty clinics serving host and refugee communities.

In 2018-19, the mental health stream of the R4HC project made steady progress toward the project aims, and continued to support the work of our partners at Columbia. Kai Ruggeri and Tomas Folke worked towards generating the necessary behavioural and mental health data from Lebanon. The survey was completed in the summer of 2019 following several rounds of feedback including from local partners and Lebanese academics at the American University of Beirut, with whom the CBR team interacted at the Lancet Palestinian Health Alliance Conference 27-28/03/2019, and with whom they have approval from the Lebanese Ministry of Public Health to collect the data. The survey was translated into Modern Standard Arabic by a professional translator.

In 2019-20 Hannes Jarke joined the team and worked with Kai and Tomas, on a survey of mental health, trust, and decision-making in refugees and the general population in Lebanon. The survey was subsequently completed with the help of IPSOS in Lebanon. In 2021 Federica Stablum joined the team to contribute generally to the work of the mental health stream.

In 2020-21 many aspects of the work had to be adapted due to lingering political instability, worsened by the pandemic, and the continued fallout from the August 2020 explosion in Beirut. Multiple initiatives were started and halted for various reasons, but the team still ended up with several critical outputs. Their primary empirical study on decision-making/risk-taking and mental health in Lebanon was published in May 2021, with a second paper forthcoming most likely in late 2021. Once regular travel resumes, the aim is to get more visibility for this work, though team members were able to present in-person to the Max Planck Institute for Human Development in Berlin. The first paper was also converted into a policy brief that was provided to participants in subsequent training and partnership programs.

Several initiatives were developed as adaptations to the original evidence-based policy training, planned initially to offer remote engagement for colleagues in and from Lebanon working in mental health policy. The aim of this programme is to strengthen the bridge between research and policy in the field of public health and mental health. Delivered in collaboration with the Cambridge Centre for Science and Policy (CSaP) during 2021, the R4HC – Cambridge Knowledge Exchange Programme (KEP) consisted of one-to-one meetings between five ECRs and policymakers ('Partners') from Lebanon and experts from the University of Cambridge selected on the relevance of their work. After the meetings the Partners of the KEP and a wider network of roughly 20 ECRs from the MENA region were invited to two workshops, one led by the PRG on 'Evidence-based behavioural policy' and one led by Dr Iris Elliott (external) on 'Communicating research evidence'.

In late August 2021, we completed the final wave of training for the Knowledge Exchange Programme, which focused on training courses in evidence-based behavioral policy as well as research communication. In completing the R4HC project in 2022, the primary final output from the mental health team was a publication in which we validated one of the behaviour/risk metric frameworks that we used in Lebanon. This article was published somewhat out of order as it had been run during the period that data collection was not possible in Lebanon (data were from Italy), but we paused writing it once we could focus on the Lebanon materials and partnerships (covered in the 2021 report). The published work included three CBR affiliates (Folke, Stablum, Ruggeri).

Outputs for GCRF Research for Health in Conflict (R4HC-MENA): developing capability, partnerships and research in the Middle and Near East (MENA)			
Articles in refereed journals	15	Reports	104 106

POPBACK: Populist Backlash, Democratic Backsliding, and the Crisis of the Rule of Law in the European Union

Project leader: Gerhard Schnyder, University of Loughborough London
Cambridge PI: Simon Deakin
Researchers: Louise Bishop, Joseph Liptrap
Research associates: Sveta Borodina, John Hamilton
Funding: NORFACE network
Dates: 2020-2023

Background, aims and objectives

The POPBACK project aims to inform strategies to increase democratic resilience by studying the mechanisms exclusionary populists use to increase their power by undermining the Rule of Law in the areas of law, the economy, and the media. The project also seeks to identify the coping strategies societal actors use when faced with exclusionary populism. It is funded by the NORFACE programme and is led by Gerhard Schnyder, currently Professor of International Management at the University of Loughborough, London, and a former research fellow in the CBR. Other participants, in addition to the CBR, are researchers from the London School of Economics; the Polish Academy of Sciences; Goethe University, Frankfurt; The Peace Institute, Ljubljana; the University of Vienna; Roehampton University, London; and the University of Delaware.

Adopting an interdisciplinary approach spanning political economy, legal-, management-, and media studies, we compare Austria, Croatia, Germany, Hungary, Poland, Slovenia, the United Kingdom, and Turkey, all of which have experienced varying degrees of populist success. The project involves collaboration with the Cambridge Centre for Science and Policy (CSaP), which is tasked with setting up an International Policy Fellowships scheme for key stakeholders from the countries studied. In addition, the project members will collaborate with artists to stage a participatory performance in four cities to engage a dialogue with citizens from the countries being studied.

Methods

This project is organised into four Work Packages (WPs), focusing on legal changes (WP1), business and economics (WP2), media and communications (WP3), and impact (WP4). The CBR's involvement is mainly in WP1, and will take the form of the construction of datasets for measuring developments in laws relating to the business enterprise (labour and company laws) and in the institutional environment of the countries being studied.

Progress

The project began in the December of 2020. The CBR contribution has so far mostly taken the form of updating the CBR's leximetric datasets on labour law and company law. In addition, Sveta Borodina, Simon Deakin and John Hamilton have published a related paper on the evolution of the rule of law in Russia.

Outputs for POPBACK: Populist Backlash, Democratic Backsliding, and the Crisis of the Rule of Law in the European Union			
Articles in refereed journals	3	Datasets	108

Digitalisation and the Future of Work: Digital Futures at Work Research Centre

Principal investigator: Simon Deakin

Researchers: Bhumika Billa, Louise Bishop, Tvisha Shroff

Joint Directors: Jacqueline O'Reilly (Sussex), Mark Stuart (Leeds)

Funding: ESRC

Dates: 2020-2024

Background

The Digital Futures at Work Research Centre (Digit) has been established with an investment from the Economic and Social Research Council (ESRC) equivalent to £8m commencing in January 2020 for five years. It aims to advance understanding of how digital technologies are reshaping work. It examines the impact and interaction of these technologies for employers, employees and their representatives, job seekers and governments. It will provide theoretically informed, empirically evidenced and policy relevant analysis of the benefits, risks and challenges for companies operating in the UK and abroad. This analysis draws on international, interdisciplinary and innovative mixed methods approaches. Further details are contained on the Digit website: <https://digit-research.org/>,

The centre is co-directed by Professor Jacqueline O'Reilly (University of Sussex Business School) and Professor Mark Stuart (Leeds University Business School). Additional partners include the Universities of Aberdeen, Cambridge and Manchester in the UK and Monash in Australia. The CBR's contribution is part of Digit's Research Theme 1, which is looking at the impact of digitalisation on work and employment. This work is being led by Simon Deakin.

Aims and objectives

The overall aim of the Digit Research Centre is to generate new knowledge to inform the development of an analytical framework around the concept of the 'connected worker' and the 'connected economy'. To this end it will maximise knowledge exchange and co-produced research with relevant communities; establish a new Data Observatory as a one-platform library of national and international resources for decision-makers connecting with UK Industrial Strategy and welfare policy; initiate an Innovation Fund providing financial support for new research initiatives and methodological approaches, enabling international exchanges and extensive dissemination; provide a strong career development programme for mid and early career researchers through mentoring and staff development, internships and summer school; and ensure the long-term sustainability of the centre by developing an MSc in People Analytics informed by Digit research.

Methods

As part of the Digit research programme, the CBR will conduct socio-Legal analysis aimed at studying how the employment/self-employment binary divide is legally and statistically constructed in countries with different legal traditions and levels of development, how digitalisation is changing traditional legal conceptualisation of work, and whether correlations exist between the growth of the digital economy and employment regulation in selected countries. This will involve the collection and analysis of legal data, using 'leximetric' coding techniques to create a dataset of national employment laws and in sectors affected by new digital platforms and automation. We will estimate econometrically, using time-series and dynamic panel data analysis, the impact of the legal framework on employment growth and outcomes in light of trends in digitalisation.

Progress

During 2020 work began developing a conceptual framework for studying the impact of digital technologies on issues of employment law including the classification of workers as employees and independent contractors. In addition, preparations were undertaken for the coding of labour law data with a view to constructing new dataset of laws affecting work carried out through platforms and other types of digital intermediation.

In the course of the academic year 2021-22, Simon Deakin, Bhumika Billa Louise Bishop and Tvisha Shroff completed an updated version of the CBR-LRI dataset covering labour laws in 117 countries for the period 1970-2021, and began work on the construction of a new dataset tracking changes in the law relating to platform work and precarious employment more generally. Simon Deakin commented on the Supreme Court's judgment in the *Uber* case in an Industrial Law Society webinar and in his contribution to the 7th. edition of the Deakin and Morris textbook on *Labour Law*. In the course of 2022 Simon also published two law review articles on themes related to law and computation.

Outputs for Digitalisation and the Future of Work			
Articles in refereed journals	56	Datasets	108

Legal Systems and Artificial Intelligence

Project leaders: Simon Deakin (CBR), Mihoko Sumida (Hitotsubashi University, Tokyo)

Co-Investigators: Jennifer Cobbe, Jon Crowcroft, Jat Singh (Computer Laboratory, University of Cambridge); Felix Steffek (Faculty of Law, University of Cambridge); Christopher Markou, Linda Shuku, Helena Xie (CBR); Yuishi Washida, Kazuhiko Yamamoto, Keisuke Takeshita, Mikiharu Noma, Wataru Uehara (Hitotsubashi University); Nanami Furue (Tokyo University of Science); Motoyuki Matsunaga (Institute for International Scio-Economic Studies, Tokyo)

Researchers: Bhumika Billa, Anca Cojocaru, Narine Lalafaryan, Chris Pang, Holli Sargeant, Lucy Thomas
Dates: 2020-2023

Background

The aim of this project is to assess the implications of the introduction of Artificial Intelligence (AI) into legal systems in Japan and the United Kingdom. The project is jointly funded by the UK's Economic and Social Research Council, part of UKRI, and the Japanese Society and Technology Agency (JST), and involves collaboration between Cambridge University (the CBR, Computer Laboratory and Faculty of Law) and Hitotsubashi University, Tokyo (the Graduate Schools of Law and Business Administration).

The use of machine learning (ML) to replicate aspects of legal decision making is already well advanced. A number of 'Legal Tech' applications have been developed by law firms and commercial suppliers and are being used, among other things, to model litigation risk. Data analytics are informing decisions on legally consequential matters including probation, predictive policing and credit evaluation. The next step will be to use ML to replicate core functions of legal systems, including adjudication.

At the same time there are already signs of push-back against the use of ML in the legal sphere. Critics point to the biases in current algorithmic decision making processes which systematically disadvantage the poor and minority groups. Concerns over the constitutionality of automating judicial processes prompted the passage Art. 33 of French Law 2019-222, which bars the use of personally identifiable data of judges and other court officials with a view to 'evaluating, analyzing, comparing or predicting their professional performance, real or supposed'.

Aims & Objectives

In this context there is an urgent need for informed debate over the uses of AI in the legal sphere. The project will advance this debate by:

- (i) exploring stakeholders' perceptions of the acceptability of AI-related technologies in the legal domain;
- (ii) identifying and addressing legal and ethical risks associated with algorithmic decision making; and
- (iii) understanding the potential of, and limits to, the computational techniques underlying law-related AI.

Methods

The project is organised through three work packages which will deploy, respectively, the methods of Horizon Scanning (WP1), and machine learning, deep learning, natural language processing, and computational linguistics (WPs 2 and 3).

WP1: Constructing Future Scenarios for the Uses of AI in Law: A Horizon Scanning Approach

Project leaders: Washida, Sumida, Deakin

The Horizon Scanning Method was developed principally by the Stanford Research Institute in the late 1960s. The method avoids the assumption that the future will tend to deviate from a linear extension of current circumstances, and attempts instead to develop more realistic predictions of the future by focusing on the collection and analysis of information that does not lie on the path of this linear extension. In implementing the Horizon Scanning approach we will firstly produce a database containing a range of information sources on the uses of AI in law, drawn from press reports and commentary and secondary academic literatures. The database will be used as the basis for discussion at a series of workshops. We will invite experts, researchers, corporate professionals and users across a broad range of fields of activity and different age ranges to take part in the workshops. Emergent scenarios will describe different possible combinations of advantages and risks stemming from the use of AI.

WP2: Computation of Complex Knowledge Systems: Law and Accounting

Project leaders: Deakin, Markou, Crowcroft, Singh, Cobbe, Shuku, Noma

This WP will consider whether the juridical reasoning underpinning employment status decisions can be visually represented using historical data from decided cases and if the outcomes of cases can be accurately predicted using a decision-tree comprised of nodes corresponding to relevant legal indicators. We will use Deep Learning and NLP to analyse legal decisions for latent or hidden variables that can help inform and refine the model. We will then explore how far the same techniques can be applied to the digitisation of knowledge systems used in accounting.

WP3 Predicting the outcome of dispute resolution: feasibility, factors and ethical implications.

Project leaders: Steffek, Xie, Yamamoto

This WP deals with the prediction of dispute outcomes and generally aims to advance understanding of the use of artificial intelligence in case outcome predictions. Analysis will be carried out on a large data set of English court cases. The dataset will be used to test different ML approaches to predicting dispute outcomes. The possibility of carrying out a parallel study using Japanese court data will be explored. In addition this WP will develop ethical guidelines for regulating Artificial Intelligence in dispute resolution'. The development of the guidelines will be supported by roundtable meetings with the partners the UK Ministry of Justice, the OECD Department on Access to Justice, leading representatives of the UK judiciary and LawTech firms.

Progress

The project began in January 2020 and a planning meeting and workshop was held in Cambridge in early March, with the participation of the Japanese team. Shortly afterwards lockdowns were initiated in both Cambridge and Tokyo and work on the project was formally paused for a three-month period. Research was resumed in the summer of 2020. Progress has been made with respect to each of the WPs.

In WP1, the collection of abstracts for use in the Horizon Scanning Method began in August. The first workshop, originally planned to take place in Cambridge in December 2020, has been postponed to the academic year 2022-23 and its final form and timing is under review.

In WP2 progress has been made in developing the conceptual framework for the work, and has resulted in a series of publications including an edited collection, *Is Law Computable? Critical Reflections on Law and Artificial Intelligence*, which was published by Hart/Bloomsbury in November 2020, and papers published in the *Journal of Cross-Disciplinary Research in Computational Law* and the *Northern Ireland Legal Quarterly*. In addition, substantial progress has been made on constructing a dataset of historical employment cases which will be used to test hypotheses concerning the long-run dynamics of legal change and the coevolution of law with social and economic development.

In WP3 work has been carried out on the dataset of English cases and the possibility of creating similar datasets of Japanese cases has been explored with relevant stakeholders. Progress has also been made in developing the ML and NLP methods which will be used to analyse the judicial data. As regards the English data set of court cases, the focus was on pre-processing the data set. Guidance for manually tagging selected cases has been produced and the manual tagging of the data set has been concluded.

Both WP2 and WP3 have organised multiple meetings between the British and Japanese sides, via zoom, to coordinate progress and ensure continuing cooperation notwithstanding the impossibility of meeting in person during the Covid emergency.

Outputs for Legal Systems and Artificial Intelligence			
Articles in refereed journals	56	Conference Presentations given	157

Research in the Theory and Practice of Governance

Project leaders: Simon Deakin, Gaofeng Meng, Bhumika Billa, Boya Wang

Dates: 2019-23

Background

A generous donation made it possible to establish a CBR Governance Fund to support a research project on the theory and practice of governance. The project takes a comparative and global perspective, comparing emerging forms of governance in China with those in Europe and north America. It is also examining trends in global governance with a focus on international agencies and their role in the production of global public goods.

Aims and objectives

We define 'governance' broadly to refer to the processes through which a polity or entity responds to risks in its environment, with a view to ensuring its continued effectiveness. Critical to this is the capacity of a system of governance to process information about its context, to embed that information in its internal processes, and to adapt in response to external shocks. This perspective builds on a number of different but complementary theoretical approaches which stress the cognitive and evolutionary dimensions of governance (the new institutionalism of Ostrom, North and Aoki; Luhmann's theory of social systems; the French schools of the economics of conventions and pragmatic sociology; and Foucault's theory of governmentality or the 'art of government'). We aim to develop this theoretical framework and to apply it through empirical observation of national, regional and global trends in governance.

Progress

on the project has focused on two principal themes. The first is the institutional development of China's economy, including the evolution of its system of property rights, and the emergence of the Belt and Road Initiative and its potential to generate common regulatory standards and frames of reference for transnational trade and movement of peoples and resources in and beyond the Eurasian region. The second is the response of the governments around the world to the Covid-19 crisis, with the focus on the measures taken in China following the appearance of the SARS-CoV-2 virus late in 2019, and on those adopted in other countries from January 2020.

Simon and Gaofeng completed a working paper on 'the governance of Covid-19' in September 2020 and it was published in the *Industrial Law Journal* in December 2021. During 2021 they worked on a paper concerned with the evolution of property rights in China; in August 2021 this was given a conditional acceptance in the *Journal of Institutional Economics*. It was published in August 2022.

During the academic year 2022-23, the project team completed an assessment of the state of the rule of law in Cambodia for the Office of the UN High Commissioner on Human Rights. In addition, Simon Deakin, together with co-authors David Gindis and Geoff Hodgson, took part in an exchange with Jean-Philippe Robé on the theory of the firm.

Outputs for Research in the Theory and Practice of Governance			
Articles in refereed journals	7 8 9	Reports	103

Survey of Business University Interactions in the UK

Project leaders: Michael Kitson (CBR)

Project team: Alan Hughes (CBR), David Angenendt (CBR), Ammon Salter (Bath)

Funding: NCUB

Dates: Ongoing

Background, aims and objectives

This project is funded by NCUB and builds on a number of earlier studies on the commercial application of academic research conducted by the CBR. It aims to identify the range, form, significance of, and business motivation for knowledge exchange (KE) activities between the UK private business sector and the UK university sector.

Methods

The research will adopt a web-based survey approach. The sampling frame will be drawn from three source: a large, public-domain database (FAME); a list of respondents to earlier CBR survey; and a list of firms known to have participated in an earlier CBR project on links between businesses and university-based academics in the years 2016-19. The survey will be supported by a number of in-depth interviews.

Progress

Understanding of the drivers, motivations, and factors that influence decisions of businesses to invest in research and innovation is a critical element of the evidence base required to achieve the ambitions of the UK Government's Industrial Strategy and the 2.4% R&D target. Building a new evidence base is critical to inform both policy thinking and formulation, and to track progress over time.

This project was commissioned by the National Centre for Universities & Business (NCUB) with support from Research England and built on several earlier studies on the commercial application of academic research conducted by the CBR. The project identified the range, form, significance of, and business motivation for knowledge exchange activities between the UK private business sector and the UK university sector.

The research was based on a web-based survey with a sample of 3823 companies in all sectors, regions and countries of the UK and the full range of employment sizes from micro-firms employing less than 10 people to the largest public listed corporations.

The project identified ten key findings. First, commercialisation is a small part of a larger landscape of knowledge exchange activities. Second, the role of proximity to a university is not very important for many firms. Third, both business and universities play active roles in initiating and facilitating interactions, with mutual actions being the norm. Fourth, companies including micro businesses interact not just with large research-focused universities but also smaller and more specialized and teaching focused institutions. Fifth, companies that interact with universities rely on a diverse range of academic disciplines, including the natural sciences and engineering but also the social sciences, the arts and humanities, and business and management. Sixth, technology-based innovation-related factors are a motivation to interact for 60% of companies, but there are a wide range of other parts of business activities that motivate interaction. Seventh, over 80% of companies indicated that interactions met or exceeded their expectations. Eighth, many companies indicated that they were

lacking in the ability to search for external knowledge from universities and invested only modest effort and time in integrating this knowledge. Ninth, for companies with at least one interaction, lack of resources within the company itself was the most frequently identified important constraint on interaction. Tenth, the most important reasons given for non- interaction relate to lack of information, both about how to interact and about the benefits of such interaction.

The full report, The Changing State of Business-University Interactions in the UK, 2005 to 2021, is available here: <https://www.ncub.co.uk/insight/the-changing-state-of-business-university-interactions-in-the-uk-2005-to-2021/>.

Outputs for Survey of Business University Interactions in the UK			
Reports	105	Datasets	142
Workshops held	150	Media and Social Media/other media	203 223 224

3.Outputs

Articles in refereed journals

1. Bach, D. and Meyer, H. (2022) 'Tripod missions: five principles for solving society's most pressing challenges' *Global Policy*, 13: 289–293. Available from: <https://doi.org/10.1111/1758-5899.13082>
2. Balderson, U., Brendan B.I, Kamerāde, D., Wang, S. and Coutts, A. (2021) 'An exploration of the multiple motivations for spending less time at work' *Time and Society* 30: 55-77.
3. Borodina, S., Deakin, S. and Hamilton, J. (2022) 'The rule of law as an emergent social norm: evidence from qualitative research in Russia' *Law and Development Review*, 15: 1-31
4. Caselli, G., Cosh, A. and Tyler, P. (2021), 'The Cambridge Phenomenon: an innovation system built on public private partnership' *Innovation & Impact*.
5. Deakin, S. and Markou, C. (2021) 'Evolutionary law and economics: theory and method' *Northern Ireland Legal Quarterly*, 72: 682-712.
6. Deakin, S. and Markou, C. (2022) 'Evolutionary interpretation: law and machine learning' *Journal of Cross-Disciplinary Research in Computational Law* online first <File:///C:/Users/44779/Downloads/deakin-markou-online-first-final-pre-doi-1.pdf>
7. Deakin, S., and Meng, G. (2022) 'Resolving Douglass C. North's 'puzzle' concerning China's Household Responsibility System' *Journal of Institutional Economics*, 18: 521-535.
8. Deakin, S., Gindis, D. and Hodgson, G. M. (2021), 'What is a firm? A reply to Jean-Philippe Robé', *Journal of Institutional Economics*, 17: 865–875
9. Deakin, S., Gindis, D. and Hodgson, G. (2022) 'A further reply to Jean-Philippe Robé on the firm' *Journal of Institutional Economics*, 18: 703-706.
10. Folke, T., Bertoldo, G., D'Souza, D., Ali, S., Stablum, F. and Ruggeri, K. (2021) 'Boosting promotes advantageous risk-taking' *Humanities and Social Sciences Communications*, 8: 1-10.
11. Gelter, M. and Siems, M (2021) 'Letting companies choose between board models: an empirical analysis of country variations' *University of Pennsylvania Journal of International Law*, 43: 137-186.
12. Gudgin, Coutts, Martin, Earl, P. Brendan Markey-Towler, Ken Coutts, 50 Years Ago: Duncan Ironmonger's New Commodities and Consumer Behaviour and Its Relationship with Lancaster's 'New Approach' to Consumer Behaviour, *History of Economics Review*, August 2022
13. Jarke, H., Jakob, L., Bojanić, L., García-Garzon, E., Mareva, S., Mutak, A. and Gjorgjiovaska, J. (2022) 'Registered report: How open do you want your science? An international investigation into knowledge and attitudes of psychology students' *PLoS ONE* 17(2), e0261260. <https://doi.org/10.1371/journal.pone.0261260>

14. Jarke, H. (2022) 'What do we know about the mental health of porn performers? A systematic literature review' *Journal of Public Mental Health*, 21: 119-127. <https://doi.org/10.1108/JPMH-07-2021-0083> / <https://doi.org/10.31234/osf.io/a5tnb>
15. Jebril, M. and Deakin, S. (2022) 'The political economy of health in the Gaza strip: reversing de-development' *Journal of Global Health* jogh.org/2022/jogh-12-03014
16. Kentikelenis, A. and Stubbs, T. (2022) 'Austerity redux: the post-pandemic wave of budget cuts and the future of global public health' *Global Policy*, 13: 5-17.
17. Konzelmann, S. Rubery, J., Burchell, B. and S. Deakin (2022) 'A tribute to Frank Wilkinson'. *Cambridge Journal of Economics*, 46: 429-446.
18. Konzelmann, S., Chick, V. and Fovargue-Davies, M. (2022) 'Shareholder value or public purpose? From John Maynard Keynes and Adolf Berle to the modern debate', in 'The Corporation: Rethinking the Iconic Form of Business Organization', *Research in the Sociology of Organizations*, 78: 164-173.
19. Konzelmann, S. and Fovargue-Davies, M. (2021) 'A "United States of Europe": an idea whose time has come (or gone)? The insecurity cycle in Europe and America' *Annals of the Fondazione Luigi Einaudi: An Interdisciplinary Journal of Economics, History and Political Science*, LV: 243-82.
20. Konzelmann, S., Chick, V. and Fovargue-Davies, M. (2021) 'Keynes, capitalism and public purpose' *Cambridge Journal of Economics*, 45: 591-612, 2021.
21. Liptrap, J.S. (2022) 'A more socio-environmentally responsive way to organise the firm? A case study on Danish social enterprise law' *European Business Organization Law Review*, forthcoming.
22. MacKenzie, N.G., Perchard, A., Mackay, D. and Burt, G. (2022) 'Unlocking dynamic capabilities in the Scotch whisky industry, 1960-85' *Business History* <https://doi.org/10.1080/00076791.2022.2085251>
23. Mina, A., Santoleri, P., di Minin, A. and Martelli, I. (2022) The causal effects of R&D grants: evidence from a regression discontinuity', *Review of Economics and Statistics*, forthcoming.
24. Mina, A., Esposito, C., Gortan, M., Testa, L., Chiaromonte, F., Fagiolo, G. and Rossetti, G. (2022) 'Venture capital investments through the lens of network and functional data analysis' *Applied Network Science*, <https://doi.org/10.1007/s41109-022-00482-y>.
25. Mina, A., Cirillo, V., Fanti, L. and Ricci, A. (2022) 'New digital technologies and firm performance: Industry 4.0 in the Italian economy', *Industry and Innovation* <https://doi.org/10.1080/13662716.2022.2055999>.
26. Mina, A., Cirillo, V., Fanti, L. and Ricci, A. (2022) 'Upgrading Italy's industrial capacity: Industry 4.0 across regions and sectors' *SINAPPSI – Journal of the Italian National Institute for Public Policy (INAPP)*, XI: 14-35, https://doi.org/10.53223/Sinappsi_2021-02-1.

27. Mina, A., Rocchetta, S., Kogler, D. and Lee, C. (2021) 'Technological knowledge spaces and the resilience of European regions' *Journal of Economic Geography*, 22: 27–51, <https://doi.org/10.1093/jeg/lbab001>.
28. Reinsberg, B., Stubbs, T. and Bujnoch, L. (2022) 'Structural adjustment, alienation, and mass protest' *Social Science Research* forthcoming.
29. Reinsberg, B., Shaw, D. O. and Bujnoch, L. (2022) 'Revisiting the security-development nexus: human security and the effects of IMF adjustment programs' *Conflict Management and Peace Science* doi:10.1177/07388942221111064.
30. Ruggeri, K., Panin, A., Vdovic, M., Abdul-Salaam, N., Amatya, J., Amatya, K., ... Jarke, H. ... Garcia-Garzon, E. (2022) 'The globalizability of temporal discounting' *Nature Human Behaviour* <https://doi.org/10.1038/s41562-022-01392-w>
31. Schnyder, G. Grosman, A. Fu, K. Siems, M. and Aguilera, R. (2022) 'Legal perception and finance: the case of IPO firm value' *British Journal of Management*, 33: 88-116.
32. Stephen, F.H. (2021) 'Understanding the role of law and the legal system in economic development requires more than a purely economic model' *Northern Ireland Legal Quarterly*, 72: 713 – 740.
33. Stubbs, T., Kentikelenis, A., Ray, R. and Gallagher, K. (2021) 'Poverty, inequality, and the International Monetary Fund: how austerity hurts the poor and widens inequality' *Journal of Globalization & Development* forthcoming.
34. Turner, S. (2022). Multi-level antecedents of public sector innovation? An ethnography of a large UK postal services organization. *Journal of Management & Organization*, 1-20. <https://doi.org/10.1017/jmo.2022.61>
35. Turner S. (2022) 'We are all vulnerable, we are all fragile': COVID-19 as opportunity for, or constraint on, health service resilience in Colombia?, *Public Management Review*. <https://doi.org/10.1080/14719037.2022.2052944>
36. Turner S, et al. (2022) Implementing COVID-19 surveillance through inter-organizational coordination: a qualitative study of three cities in Colombia, *Health Policy and Planning*, Volume 37, Issue 2, February 2022, Pages 232–242, <https://doi.org/10.1093/heapol/czab145>
37. Turner, S., Ulloa, A., Niño, N., Valencia Godoy, V. (2021). 'The Role of Intersectoral Action in Response to COVID-19: A Qualitative Study of the Roles of Academia and the Private Sector in Colombia', *International Journal of Health Policy and Management*, <https://doi.org/10.34172/ijhpm.2021.100>
38. Turner, S., Niño, N., Segura, C. et al. (2021) Organisational responses to mitigate the effects of COVID-19 on healthcare workers: a qualitative case study from Bogotá, Colombia. *BMC Health Serv Res* 21, 792, <https://doi.org/10.1186/s12913-021-06825-2>
39. Wang, S., Kamerāde, D., Burchell, B., Coutts, A. and Balderson U. (2022) 'What matters more for employees' mental health: job quality or job quantity?' *Cambridge Journal of Economics*, 46: 251-274.

40. Wang, S., Kamerāde, D., Bessa, I., Burchell, B., Gifford, J., Green, M. and Rubery, J. (2022) 'The impact of reduced working hours and furlough policies on workers' mental health at the onset of COVID-19 pandemic: a longitudinal study' *Journal of Social Policy*, 1-25.
41. Wang, S., Coutts, A., Burchell, B., Kamerāde, D. and Balderson, U. (2021) 'Can active labour market programmes emulate the mental health benefits of regular paid employment? Longitudinal evidence from the United Kingdom' *Work, Employment and Society*, 35: 545-565.
42. Yu, E. P., Tanda, A., Luu, B.V. and Chai, D.H. (2021) 'Environmental transparency and investors' risk perception: cross-country evidence on multinational corporations' sustainability practices and cost of equity' *Business Strategy and the Environment*, 30: 3975-4000.

Chapters in Books

43. Brejnholt, A., Rintamaki, J., Schnyder, G., & Svystunova, L. (2022). The State and Corporate Social Responsibility: Theorising the Relationship. In M. Wright, A. Grosman, I. Okhmatovsky, A. Musacchio, G. Wood, & P. Sun (Eds.), *Oxford Handbook of State Capitalism and the Firm* (pp. 1–25). Oxford University Press.
44. Caselli, G. (2022) 'How do cooperative banks consider climate risk and climate change?', in M. Migliorelli and E. Lamarque (eds.), *Contemporary Trends in European Cooperative Banking: Sustainability, Governance, Digital Transformation, and Health Crisis Response* (Cham, Switzerland: Palgrave Macmillan), pp. 193-223.
45. Caselli, G. (2021) 'The role of bank ownership types and business models', in G. Ferri and V. D'Apice (eds.), *A Modern Guide to Financial Shocks and Crises* (Cheltenham: Edward Elgar), pp. 135-15.
46. Forster, T., Stubbs, T. and Kentikelenis, A. (2022) 'The politics of the International Monetary Fund', in M. Deciancio, P. Nemina and D. Tussie (eds.) *Handbook on the Politics of International Development* (Cheltenham: Edward Elgar), pp.376-391.
47. Gibb, A. and MacKenzie, N.G. (2022) 'From Scotland With love: the creation of the Japanese whisky industry, 1918-79', in M. Cooper and A./ Popp (eds.) *Emotions and the History of Business* (London: Bloomsbury).
48. Gudgin, Coutts, Martin, *Discrimination in Housing in The Idea of the Union* edited by John Wilson Foster and William Beattie Smith Belcouver Press 2021
49. Gudgin, Coutts, Martin, *The Island Economies. Comparative Living standards. in The Idea of the Union* edited by John Wilson Foster and William Beattie Smith Belcouver Press 2021
50. Jarke, H., Ruggeri, K., Graeber, J., Tünnte, M.R., Ojinaga-Alfageme, O., Verra, S. ... Galizzi, M. M. (2022) 'Health behavior and decision-making in healthcare', in K. Ruggeri (ed.) *Psychology and Behavioral Economics: Applications for Public Policy 2nd. ed.* (New York and London: Routledge) <http://dx.doi.org/10.4324/9781003181873-5>.

51. Kamerāde, D., Balderson, U., Burchell, B., Wang, S. and Coutts, A. (2021) 'Shorter working week and workers' well-being and mental health', in M. Müller and C. Reiff (eds.) *Arbeitszeit: Rahmenbedingungen – Ambivalenzen – Perspektiven* (In German: Working time: Frameworks – Ambivalences- Perspectives).
52. Katelouzou, D. and Siems, M. (2022) 'The global diffusion of Stewardship Codes', in D. Katelouzou and D. Puchniak (eds.) *Global Shareholder Stewardship* (Cambridge: Cambridge University Press), pp. 631-662.
53. Konzelmann, S. (2022) 'Austerity, poverty and Inequality: a political economy perspective', in C. Moraes, M. McEachern and D. O'Loughlin (eds.) *Researching Poverty and Austerity: Theoretical Approaches, Methodologies and Policy-Relevant Research* (Oxford: Routledge), forthcoming.
54. Konzelmann, S. and Fovargue-Davies, M. (2021) 'Industrial strategy for post-Covid Britain', in P. Allen, S. Konzelmann and J. Toporowski (eds.) *The Return of the State: Restructuring Britain for the Common Good* (Newcastle upon Tyne: Agenda).
55. MacKenzie, N.G. and Perchard, A. (2022) 'Industrial clustering in a peripheral region: path dependence and creation in the Scottish Highlands', in J. Wilson, J. Lane and C. Corker (eds.) *Industrial Clusters* (London: Routledge).
56. Ortiz, I. and Stubbs, T. (2022) 'Austerity rerun', in R. Labonte and C. Bodini (eds.) *Global Health Watch 6: In the Shadow of the Pandemic* (London: Zed Books), 93-210.
57. Perchard, A. & MacKenzie, N.G. (2022) 'Behind the tartan curtain: cartelisation in the Scotch whisky industry', in S. Fellman and M. Shanahan (eds.) *A History of Business Cartels: International Politics, National Policies, and Anti-Competitive Behaviour* Routledge International Studies in Business History (London: Routledge).
58. Pollitt, M. (2022) 'Moral drivers and moral lenses: policy, economy, faith and climate change', in M. Dahlan, R. Lastra and G. Rochette (eds.) *Research Handbook on Energy, Law and Ethics* (Cheltenham: Edward Elgar), forthcoming.
59. Rabb, N., Kossowska, M., Wood, T., Schulte, D., Vourloumis, S. and Jarke, H. (2022) 'Responsiveness to evidence: a political cognition approach', in J. Strömbäck, Å. Wikforss, T. Lindholm, H. Oscarsson and K. Glüer (eds.) *Knowledge Resistance in High-Choice Information Environments* (New York and London: Routledge) <https://doi.org/10.4324/9781003111474-7>.
60. Ruggeri, K., Jarke, H., Friedemann, M., Naru, F. and Papa, F. (2022) 'An Introduction to behavioral economics', in K. Ruggeri (ed.) *Psychology and Behavioral Economics: Applications for Public Policy* 2nd. ed. (New York and London: Routledge) <http://dx.doi.org/10.4324/9781003181873-3>
61. Ruggeri, K., Friedemann, M., Krawiec, J.M., Jarke, H., Quail, S.K., Paul, A.F., Folke, T. and Rubaltelli, E. (2022) 'Economic, financial, and consumer behavior', in K. Ruggeri (ed.), *Psychology and Behavioral Economics: Applications for Public Policy* 2nd. ed. (New York and London: Routledge) <http://dx.doi.org/10.4324/9781003181873-4>.

62. Ruggeri, K., Berkessel, J., Bujold, P., Friedemann, M., Jarke, H. ... Hardy, E. (2022) 'A brief history of behavioral and decision sciences', in K. Ruggeri (ed.) *Psychology and Behavioral Economics: Applications for Public Policy* 2nd. ed.)New York and London: Routledge) <http://dx.doi.org/10.4324/9781003181873-2>.
63. Santos, N. and Chai, D.H. (2022) 'The Vatican's response to the Coronavirus pandemic: the COVID-19 Commission and preparing the future', in C. Shultz, D. Rahtz and J. Sirgy (eds.) *Community, the Economy, and COVID-19: Lessons from Multi-Country Analyses of the SARS-CoV-2 Pandemic* (New York: Springer) forthcoming.
64. Stubbs, T. (2022) 'International Monetary Fund', in C. Binder, M. Nowak, J. Hofbauer and P. Janig (eds.) *Elgar Encyclopaedia of Human Rights* (Cheltenham: Edward Elgar).
65. Turner S, Ulloa AM, Valencia Godoy V, Niño N. (2021) "Learning from History or Reacting to Events? Colombia's Navigation of Major System Change in Response to COVID-19". In: Waring J., Denis JL., Reff Pedersen A., Tenbensen T. (Eds) *Organising Care in a Time of Covid-19. Organizational Behaviour in Healthcare*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-82696-3_4

Books

66. Allen, P., Konzelmann, S. and Toporowski, J. (eds.) (2021) *The Return of the State: Restructuring Britain for the Common Good* (Newcastle upon Tyne: Agenda).
67. MacKenzie, N.G., Perchard, A., Miller, C.W. and Forbes, N. (2022 forthcoming) *Varieties of Capitalism Over Time* (London: Routledge).

Working papers

68. Caselli, G. and Figueira, C. (2022), 'Monetary policy, ownership structure, and risk taking at financial intermediaries', *The Financial Review*, revise and resubmit.
69. Caselli, G., Cosh, A. and Tyler, P. (2022), *The Cambridge Phenomenon Innovation System at 60*.
70. Caselli, G. (2022), *Natural disasters and credit standards*.
71. Caselli, G. (2022), *Temperature shocks, credit risk and loan pricing*.
72. Cosh, A. and Caselli, G. (2022), *2020 BRES results for Greater Cambridge*.
73. Cosh, A. and Caselli, G. (2022), *2020 BRES results for the Cambridgeshire and Peterborough Combined Authority area*.
74. Jarke, H., Anand-Vembar, S., Alzahawi, S., Bojanić, L., Carstensen, A., ... Geiger, S. J. (in review). A Roadmap to Large-Scale Multi-Country Replications in Psychology.
75. Kern, A., & Reinsberg, B. (2021). 'The Political Economy of Chinese Debt and IMF Conditionality (October 27, 2021). <http://dx.doi.org/10.2139/ssrn.3951586>

76. Kern, A., Reinsberg, B., and Shea, P. (2022). IMF Programs, Chinese Lending, and the Political Economy of Leader Survival. Working Paper #118. Williamsburg, VA: AidData at William & Mary.
77. Liptrap, J.S. 'What Can Social Enterprise Law Contribute to the Corporate Purpose Debate?' (to be submitted to Cambridge Law Journal)
78. Siems, M. A Law-and-Finance Perspective on Capital Markets (29 June 2022), available at <https://ssrn.com/abstract=4149677>

Other publications (eg) Book Reviews, pamphlets, Blogs

79. Chalmers, D., Harris, S., MacKenzie, NG., Gordon, J. (2022). Community Wealth Building Through Digital Platform Cooperatives: A Strategy For Scotland. Report to Scottish Government.
80. Cosh, A. and Caselli, G. (2022), *Greater Cambridge Employment Update June 2022*, report to the Greater Cambridge Partnership and Cambridge Ahead, June 2022.
81. Cosh, A. and Caselli, G. (2022), *Greater Cambridge Employment Update February 2022*, report to the Greater Cambridge Partnership and Cambridge Ahead, February 2022.
82. Cosh, A. and Caselli, G. (2021), *Greater Cambridge Employment Update October 2021*, report to the Greater Cambridge Partnership and Cambridge Ahead, October 2021.
83. Cosh, A. and Caselli, G. Cambridge Ahead (2021), *Annual Publication 2021*, November 2021.
84. Cosh, A. and Caselli, G. ScaleUp Institute (2021), *ScaleUp Annual Review 2021*, November 2021.
85. Dietrich, S., Reinsberg, B., & Steinwand, M. (2022). Donor bureaucratic organization and the pursuit of performance-based aid through multilateral trust funds. *Journal of International Relations and Development* (doi:10.1057/s41268-022-00259-x). –
86. Gudgin, Coutts, Martin, Only Un-Conservative measures can solve the energy crisis. With Professor Robert Tombs. *Spectator magazine* <https://www.spectator.co.uk/writer/robert-tombs-and-graham-gudgin>
87. Gudgin, Coutts, Martin, The Island of Ireland. Two distinct economies. *Policy Exchange* June 5 2022 <https://policyexchange.org.uk/publication/the-island-of-ireland/>
88. Gudgin, Coutts, Martin, Why the CER is wrong about Brexit *Policy Exchange* June 2022. <https://policyexchange.org.uk/why-the-centre-for-european-reform-is-wrong-about-brexit/>
89. Gudgin, Coutts, Martin, The protocol is not helping the Northern Ireland economy. *Belfast Newsletter* June 2022 <https://www.newsletter.co.uk/news/opinion/graham-gudgin-the-protocol-isnt-helping-northern-ireland-as-some-economists-say-3742412>
90. Gudgin, Coutts, Martin, This is a radical UK plan to overturn the Northern Ireland Protocol *Belfast Newsletter*. Aug. 2021 <https://www.newsletter.co.uk/news/opinion/columnists/this-is-a-radical-uk-plan-to-overturn-the-protocol-3326878>

91. Jarke, H. (2022, May 26). Wenn das Workout mit Fitness Apps schiefgeht: Das Vogel-Strauß Problem der aktiven Vermeidung [Why app-supported workouts fail – The Ostrich Problem of active avoidance]. InMind Blog. <https://bit.ly/3NYkZQ4>
92. Kentikelenis, A., & Stubbs, T. (2021). Missing links: How climate change remains peripheral to IMF economic surveillance activities. Recourse: Amsterdam.
93. Kentikelenis, A., & Stubbs, T. (2021). Out of the shadows: Integrating climate change into IMF technical assistance. Recourse: Amsterdam.
94. Konzelmann, S. 'Introduction to the Virtual Special Issue: A Selection of Frank Wilkinson's Articles in the Cambridge Political Economy Society Journals.' (with B. Burchell, S. Deakin, S. Pratten & J. Rubery) Cambridge Journal of Economics and Society and Contributions to Political Economy. 2021. <https://academic.oup.com/cje/pages/a-selection-of-frank-wilkinsons-articles-in-the-cambridge-political-economy-society-journals>
95. Konzelmann, S. 'The Political Economy of Industrial Strategy in the UK'. Edited by C. Berry, J. Froud & T. Barker. Renewal, forthcoming, 2022.
96. Konzelmann, S. 'Debunking the Long-held Myths that Keep Austerity Alive.' The Progressive Post. Winter, No. 15, pp. 58-9, 2021.
97. Liptrap, J.S. 'Review of Brakman Reiser, D. and Dean, S. A., Social Enterprise Law: Trust, Public Benefit, and Capital Markets, Oxford: Oxford University Press, 2017, 202 pp, hb £42.49' Modern Law Review
98. Olumba, E., & Stubbs, T. (12 July, 2022). Herder-farmer conflict in the Sahel needs a new description: Why 'eco-violence' fits. The Conversation.
99. Reinsberg, B., & Stubbs, T. (4 October, 2021). Business as usual or breaking with the past? IMF tax advice in the Covid-19 era. Austaxpolicy.
100. Reinsberg, B., & Dellepiane, S. (2022). The domestic sources of sub-state foreign policymaking: Determinants of subnational development cooperation across European regions. Journal of European Public Policy (doi:10.1080/13501763.2022.2055111). –
101. Reinsberg, B., & Dellepiane, S. (2021). Development cooperation by European regions: Introducing the subnational donor governance dataset. Development Policy Review (doi:10.1111/dpr.12608). –
102. Reinsberg, B., Stubbs, T., Kentikelenis, A. (2021). Compliance, defiance, and the dependency trap: International Monetary Fund program interruptions and their impact on capital markets. Regulation & Governance (doi:10.1111/rego.12422)

Reports

103. Deakin, S., Billa, B., Meng, G. and Wang, B. (2022) *The Political Economy of the Rule of Law in Cambodia* Report for OHCHR.
104. Fouad, F., Diab, J., Barkil-Oteo, A., Kaloti, R., Maiki, C., Coutts, A., Deakin, S., Daoud, A., Ismail, S., Sullivan, R. (2022) *How Politics Made a Nation Sick. The Political Economy of Health in Lebanon* (London: King's College). Published by the Conflict & Health Research Group under the R4HC MENA Programme. ISBN: 978-1-3999-1469-7.
105. Hughes, A., Kitson, M., Salter, A., Angenendt, D. and Hughes, R. (2022), *The Changing State of Business-University Interactions in the UK, 2005 to 2021*, National Centre for Universities & Business (NCUB) and Centre for Business research (CBR), available at: <https://www.ncub.co.uk/insight/the-changing-state-of-business-university-interactions-in-the-uk-2005-to-2021/>.
106. Jebril, M. (2021) *The Political Economy of Health in the Gaza Strip* (Cambridge: CBR) <https://www.cbr.cam.ac.uk/wp-content/uploads/2021/11/cbr-special-report-the-political-economy-of-health-in-the-gaza-strip.pdf>.
107. Kentikelenis, A., Stubbs, T., and Reinsberg, B. (2022) *The IMF and the Road to a Green and Inclusive Recovery after COVID-19* (Cambridge: CBR) Special Report.

Datasets created and archived, software written

108. Adams, Z., Billa, B., Bishop, L., Deakin, S. and Shroff, T. (2022) *CBR-Labour Regulation Index (Dataset of 117 Countries 1970-2021)*. New version completed September 2022, publication planned for later in 2022.
109. Cosh, A. and Caselli, G. New draw of all companies located within a 20-mile radius of Cambridge city centre.
110. Cosh, A. and Caselli, G. New draw of all companies located in any of the 14 local authority districts making up the GCGP LEP.
111. Cosh, A. and Caselli, G. Updated Cambridge Cluster Insights platform based on Microsoft Power BI software.
112. Cosh, A. and Caselli, G. Employment & turnover by broad sectors 2014-21.
113. Cosh, A. and Caselli, G. Employment & turnover by narrow sectors 2014-21.
114. Cosh, A. and Caselli, G. Corporate growth by broad sectors 2014-21.
115. Cosh, A. and Caselli, G. Corporate growth by narrow sectors 2014-21.
116. Cosh, A. and Caselli, G. Employment & turnover by firm size 2014-21.
117. Cosh, A. and Caselli, G. Corporate growth by firm size 2014-21.
118. Cosh, A. and Caselli, G. Firm demography.

119. Cosh, A. and Caselli, G. Growth composition.
120. Cosh, A. and Caselli, G. Contribution to growth from continuing companies etc.
121. Cosh, A. and Caselli, G. Non-corporate research institutions.
122. Cosh, A. and Caselli, G. Summary of employment level 2014-21 – 6 districts.
123. Cosh, A. and Caselli, G. Summary of employment growth 2014-21 – 6 districts.
124. Cosh, A. and Caselli, G. Summary of turnover level 2014-21 – 6 districts.
125. Cosh, A. and Caselli, G. Summary of turnover growth 2014-21 – 6 districts.
126. Cosh, A. and Caselli, G. Press release – Cambridge city region.
127. Cosh, A. and Caselli, G. Press release – Greater Cambridge.
128. Cosh, A. and Caselli, G. Press release – Combined Authority.
129. Cosh, A. and Caselli, G. About companies on the Cambridge Cluster Map.
130. Cosh, A. and Caselli, G. CBR Database methodology.
131. Cosh, A. and Caselli, G. Business location maps.
132. Cosh, A. and Caselli, G. Turnover-to-employment and employment-to-asset SIC ratios.
133. Cosh, A. and Caselli, G. CBR & BRES employment growth comparison.
134. Cosh, A. and Caselli, G. CBR, BRES & PAYE RTI employment growth comparison.
135. Cosh, A. and Caselli, G. CBR employment data by 3-digit SIC code.
136. Cosh, A. and Caselli, G. CBR employment data by Cambridge Econometrics sector.
137. Cosh, A. and Caselli, G. Business & science parks analysis.
138. Cosh, A. and Caselli, G. Greater Cambridge October 2021 Update sample.
139. Cosh, A. and Caselli, G. Greater Cambridge February 2022 Update sample.
140. Cosh, A. and Caselli, G. Greater Cambridge June 2022 Update sample.
141. Gudgin, Coutts, Martin, Two complete updates of the macro-economic datasets for the CBR Macro-economic model of the UK Economy. Work undertaken with colleagues in Ireland (Prof Neil Gibson and Jordan Buchanan). The UKMOD database is now compliant with the 2020 ONS National Accounts Blue Book, with further data for 2021 using ONS quarterly statistics. In addition a Financial variables dataset for the FinMOD model has been updated. A further update will be undertaken when the 2021 Blue Book is published in October 2022.

142. Hughes, A., Kitson, M., Salter, A., Angenendt, D. and Hughes, R, (2022), Survey of Business University Interactions in the UK.
143. Reinsberg, B. 'Human Security Index': -- Reinsberg, B., Shaw, D. O., & Bujnoch, L. (2022). Revisiting the security-development nexus: Human security and the effects of IMF adjustment programs. *Conflict Management and Peace Science* (doi:10.1177/07388942221111064).
144. Reinsberg, B. 'Subnational donor governance dataset', <https://doi.org/10.7910/DVN/BKJX6Z>, introduced in two articles: -- Reinsberg, B., & Dellepiane, S. (2021). Development cooperation by European regions: Introducing the subnational donor governance dataset.
145. Reinsberg, B. Development Policy Review (doi:10.1111/dpr.12608). -- Reinsberg, B., & Dellepiane, S. (2022). The domestic sources of sub-state foreign policymaking: Determinants of subnational development cooperation across European regions. *Journal of European Public Policy* (doi:10.1080/13501763.2022.2055111).
146. Ruggeri, K. Temporal discounting data: <https://osf.io/jfvh4>

Workshops held

147. Anand-Vembar, S. (chair), Alzahawi, S., Carstensen, A., Garcia-Garzon, E., Kapoor, H., Lewis, S., Geiger, S. J., & Jarke, H. (2021, Aug 22). Approaches to Multi-country Replications in Psychology and Behavioural Sciences – Session Two (of Two) [Panel discussion]. 10th Junior Researcher Programme Conference, Online, UK. https://youtu.be/IGFi2Dp_Hp4
148. Cosh, A. and Caselli, G. *Connecting after Covid – Personal Impact and Embodied Presence Training*, St Edmund's College, Cambridge, UK, 10 November 2021.
149. Cosh, A. and Caselli, G. *The Cambridge innovation ecosystem: past, present and future*, St Edmund's College Science and Innovation Online Programme, St Edmund's College, Cambridge, UK, 16 August 2021.
150. Hughes, A., 'The Changing State of Business-University Interactions in the UK, 2005 to 2021', launch event, National Centre for Universities & Business (NCUB) 24th March 2022.
151. Jarke, H. (chair), Bojanić, L., Feldman, G., Večkalov, B., Zickfeld, J., Geiger, S. J., & Anand-Vembar, S. (2021, Aug 22). Approaches to Multi-country Replications in Psychology and Behavioural Sciences – Session One (of Two) [Panel discussion]. 10th Junior Researcher Programme Conference, Online, UK. <https://youtu.be/CHlgMCFTj9c>
152. Pollitt, M. and Jones, I. Association for Christian Economics UK Annual Conference, Glasgow, 8th July 2022
153. Reinsberg, B. 'Causal inference for policy evaluation', Scottish Graduate School for the Social Sciences, 16 June 2022
154. Ruggeri, K. Knowledge Exchange Partnership with Lebanon 'partners' (August 2021)

155. Schynder, G. London Workshop on Institutional Issues – 21-22 September 2021 (Online) “Crisis and Persistence: Dynamics of institutional changes at the interface of the formal and informal institutions”

Conference Papers/Presentations given

156. Anand-Vembar, S., Lewis, S., Geiger, S. J., & Jarke, H. (2021, Oct 30). Current Approaches to Multi- Country Replications in Psychology [Presentation]. PSACON 2021, Online.
157. Bhumika Billa, ‘Law as code: towards an information theory of law’ presented at—Paris Intensive Doctoral Week, Sciences Po (June 2022), Peterhouse Annual Student Conference (February 2022) and DIGIT Paper in Progress Series, University of Sussex (January 2022)
158. Cosh, A. and Caselli, G. *How Do Cooperative Banks Consider Climate Risk and Climate Change?*, 2nd Research Workshop on the Future of Financial Mutuals, Bayes Business School, London, UK, 7 September 2022 (planned).
159. Cosh, A. and Caselli, G. *Greater Cambridge Employment Update June 2022*, Greater Cambridge Partnership and Cambridge Ahead, Cambridge, UK, 28 July 2022.
160. Cosh, A. and Caselli, G. *Latest CBR data – a snapshot*, Cambridge Ahead Economic Planning and Housing Group, Cambridge, UK, 26 July 2022.
161. Cosh, A. and Caselli, G. *How Do Cooperative Banks Consider Climate Risk and Climate Change?*, 13th Euricse International Workshop on Cooperative and Responsible Finance for Development, Trento, Italy, 16 June 2022.
162. Cosh, A. and Caselli, G. *Greater Cambridge Employment Update February 2022*, Greater Cambridge Partnership and Cambridge Ahead, Cambridge, UK, 20 April 2022.
163. Cosh, A. and Caselli, G. *Annual Draw 2020/21 Highlights: Greater Cambridge area*, South Cambridgeshire District Council, Cambridge, UK, 30 March 2022.
164. Cosh, A. and Caselli, G. *Annual Growth Data*, Cambridge Ahead Regional Economic Planning Group, Cambridge, UK, 8 March 2022.
165. Cosh, A. and Caselli, G. *Greater Cambridge Employment Update October 2021*, Greater Cambridge Partnership and Cambridge Ahead, Cambridge, UK, 8 December 2021.
166. Cosh, A. and Caselli, G. *The Cambridge Phenomenon Innovation System at 60*, The 2021 International Virtual Conference on Innovation, Technology, Artificial Intelligence and Entrepreneurship Ecosystem (ICITAIEE), Ecosystem Consultants, 16 November 2021.
167. Cosh, A. and Caselli, G. *Latest Quarterly Growth Data*, Cambridge Ahead Regional Economic Planning Group, Cambridge, UK, 7 September 2021.
168. Deakin, S. (2022) ‘La responsabilité pour les préjudices complexes dans la common law’, presentation to the conference, *Faut-il modifier l’appréhension du fait générateur?*, Cour de Cassation, Paris, 31 March 2022.

169. Gibb, A. MacKenzie, NG. Love and whisky: the personal relationships behind Nikka whisky and lessons for Business History, World Congress on Business History, Nagoya University, Nagoya, Japan, July 2021.
170. Kamerāde, D. A presentation in Understanding Society event for policy makers and practitioners (2021)
171. Konzelmann, S. 'John Maynard Keynes, Adolf Berle & the Modern Debate about Corporate Purpose'. CJE 2021 Conference. Cambridge, UK, (Online), September 2021. <https://youtu.be/GYiPwhIO1bc>
172. Lawson, C. and Salter, A. 'The reverse engagement gap: Gender differences in external engagement among UK academics'. paper development workshop for a forthcoming special issue in Studies of Higher Education on the topic of 'Reconceptualising Knowledge Exchange (KE) and Higher Education Institutions (HEIs): International evidence of challenges and good practices'. 23-24 September 2021.
173. Lawson, C. and Morales-Tirado, M. 'Make them more productive and successful: An analysis of LinkedIn use by academics'. Open Innovation in Science (OIS) Conference. 11-12 May 2022.
174. Lawson, C. and Morales-Tirado, M. 'Make them more productive and successful: An analysis of LinkedIn use by academics'. 5th BETA Workshop in the Economics of Science and Innovation, Strasbourg, 23d – 24th June 2022
175. MacKenzie, NG. Newcastle Business School, Northumbria University. 'Local Patriots: Dewars whisky and place-based philanthropy.' With Jillian Gordon. April 2022.
176. MacKenzie, NG. University of Southern California, Greif Centre for Entrepreneurial Studies. 'The Past Futures of Entrepreneurs: How Historical Research Can Develop Our Understanding of How Entrepreneurs Exercise Judgement in Context'. With Andrew Smith and Kevin Tennent. October 2021.
177. MacKenzie, NG. 'Creativity and Innovation', Workshop, Sustainability Hackathon, Glasgow, UK, October 2021.
178. MacKenzie, NG. Knox, S. Hannon, M. Understanding technology legitimization through political discourse: the case of nuclear fast breeder technology in the UK, World Congress on Business History, Nagoya University, Nagoya, Japan, July 2021.
179. Mina, A. (with R. Danna and M. Iori) 'A Numerical Revolution: The diffusion of practical mathematics and the growth of pre-modern European economies': DRUID Summer Conference 2022, Copenhagen Business School, 13-15th June 2022. Winner of the Best Paper award: <https://program.druid.dk/session/2/67>

180. Mina, A. (with M. Iori and A. Martinelli) 'The direction of technical change in AI and the trajectory effects of government funding', Working paper version available here: Strategic Management Society Conference, London, 17-20 September 2022: Nominated for the Best Paper Award of the SMS Knowledge and Innovation Interest Group; BETA/University of Strasbourg Seminar Series, 9 June (online), 2022; Max Planck for Innovation and Entrepreneurship Seminar Series, Munich, 27 April 2022; 8th European Conference on Corporate R&D and Innovation (CONCORDi 2021) 'Industrial Innovation for Competitive Sustainability', EC/JRC Seville, 22-25 November (online).
181. Mina, A. (with G. Tripodi, F. Lamperti, F. Chiaromonte, F. Lillo, and R. Mavilia) 'Quantifying knowledge spillovers from negative emissions research within and beyond science', Working paper available here: 10th International Conference on Complex Networks and their Applications, Madrid, Spain, November 30 - December 2, 2021.
182. Mina, A. (with V. Cirillo, L. Fanti, A. Ricci) 2022. 'New digital technologies and firm performance: Industry 4.0 in the Italian economy': DRUID Summer Conference (postponed), Copenhagen Business School, 18-20 October, 2021.
183. Mina, A. (with P. Santoleri, A. di Minin, I. Martelli) 'The causal effects of R&D grants: evidence from a regression discontinuity', Working paper version available here: Global Conference on Economic Geography, University College Dublin & Trinity College Dublin, 7-10 June 2022;
184. Mussell, H. August 2022: Invited panel speaker at Social Ontology and Collective Intentionality (Feminist metaphysics stream), Vienna, Austria
185. Mussell, H. July 2022 (Covid -19 postponed): Philosophy & Management Conference. Accepted paper: 'Elucidating Limited Shareholder Engagement: Identifying Ethical & Epistemological Factors in the Fiduciary', University of Oxford, UK
186. Reinsberg, B. Political Economy of International Organization (PEIO) conference, Oxford, 7-9 July 2022 -- Reinsberg, B., Stubbs, T., & Bujnoch, L. (2022). Structural adjustment, alienation, and mass protest. -- Konstantinidis, N., & Reinsberg, B. (2022). IMF conditionality and the local ownership of reforms. -- Kern, A., & Reinsberg, B. (2022). The political economy of Chinese debt and IMF conditionality.
187. Reinsberg, B. 'Dreilaendertagung' in International Political Economy, Munich, 20-22 June 2022 -- Kern, A., & Reinsberg, B. (2022). The political economy of Chinese debt and IMF conditionality. -- Kern, A., & Reinsberg, B. (2022). When women pay the price: IMF programs and gender inequality. -- Abouharb, M.R., & Reinsberg, B. (2022). Beggar thy opposition supporter: The local political economy of IMF adjustment programs.
188. Schynder, G. Paper "MNC political risk under right-wing populist governments" presented at workshop on Democracy and the Corporation, University of Utrecht March 16th-18th 2022
189. Schynder, G. Paper "Populism & Neoliberalism: Investigating the link" presented at workshop Divergence and Backlash in Central and Eastern Europe: Political Economy at a Crossroads?,
190. Schynder, G. Centre for Social Sciences – Institute of Political Science (TK PTI), Budapest, 24 May 2022

191. Schynder, G. Paper “Mapping authoritarian communication networks: Analysis of media owners in Central and Eastern Europe” presented at The Illiberal Turn Conference, 28-29 April 2022, Loughborough University

User Contacts Consultancy and Advice given (paid or unpaid)

192. Gudgin, G. was a paid consultant to the Cabinet Office on the diversion of trade in Northern Ireland in the context of the Northern Ireland Protocol of the EU Withdrawal Agreement. He has also advised Lord Frost, Minister at the Cabinet Office on aspects of the Protocol
193. Gudgin, G. was a Member of the Department for International Trade expert Committee on modelling the economic impact of UK trade agreements
194. Gudgin, G. attended two sessions of the Cabinet Committee on the Northern Ireland Protocol in June 2021. (It is unusual for non-cabinet members to attend Cabinet Committees)
195. Kentikelenis, A., Stubbs, T., & Reinsberg, B. (2022). The IMF and the road to a green and inclusive recovery after Covid-19. CBR Special Report. Advisory study for the German Federal Ministry of Economic Cooperation and Development
196. Konzelmann, S. 2018 – present Council Member, Progressive Economy Forum (PEF) <https://progressiveeconomyforum.com/>
197. Konzelmann, S. 2017 – present Member, Progressive Economics Group (PEG) <https://peg.primeeconomics.org/about/>
198. Konzelmann, S. 2017 – present Member, Women’s Budget Group (WBG) <https://wbg.org.uk/>
199. Mussell, H. 2022 - ongoing: Acting as Specialist Advisor for Principia Advisory (world-leading organizational ethics consultancy) on numerous client projects relating to Diversity, Equality & Inclusion, Governance & Fiduciary <https://www.principia-advisory.com/team/>
200. Siems, M. was an Advisor for project on ‘Populist Backlash, Democratic Backsliding, and the Crisis of the Rule of Law in the European Union’, funded by the NORFACE network (since 12/20), <https://www.popback.org/>

Media Coverage

(a) Newspapers

201. Cosh, A. and Caselli, G. Cambridge Independent, *Life sciences and IT drove Cambridge growth in pandemic’s first year*, 16 March 2022.
202. Cosh, A. and Caselli, G. Cambridge Independent, *Employment growth remains strong in Greater Cambridge region’s knowledge-intensive businesses but falls elsewhere*, 28 December 2021.
203. Kitson, M. ‘Local focus for university-business links in UK ‘too narrow’ Times Higher Education, March 24th 2022, <https://www.timeshighereducation.com/news/local-focus-university-business-links-uk-too-narrow>

204. Konzelmann, S. 'Open Letter: We Need a National Food Emergency Summit' The Tribune. 16 June 2022. <https://tribunemag.co.uk/2022/06/national-food-emergency-hunger-crisis-open-letter#:~:text=In%20an%20open%20letter%2C%20a,millions%20going%20hungry%20in%20Britain.>
205. Konzelmann, S. 'Open Letter to Boris Johnson for suppressing Brits' wages as inflation soars' The Mirror. 16 June 2022. <https://www.mirror.co.uk/news/politics/boris-johnson-accused-fighting-wrong-27252641>
206. Mayaki, Benedict. 'Young African professionals reflect on being 'changemakers' for the future.' Vatican Media, 4 Oct. 2021.
207. Reinsberg, B. Newspapers /web outlets -- 'Business as Usual or Breaking With the Past? IMF Tax Advice in the Covid-19 Era,' Austaxpolicy: Tax and Transfer Policy Blog (October 4, 2021) - - 'When central bank independence becomes a condition for International Monetary Fund loans,' LSE Business Review (October 1, 2021) -- 'Lots of IMF programmes are never completed – because they're unworkable,' The Conversation (July 12, 2021)
208. Wooden, Cindy. 'Leave no one behind: Young Africans share vision for economy.' Crux, 2 Oct. 2021.

(b) TV/Radio/Film

209. Kamerāde, D. A podcast on Work and Mental health on RifkinRadio (USA)
210. Reinsberg, B. TV/Radio '75 Jahre Internationaler Währungsfonds: Wie die Ärmstenunter Hilfskrediten leiden', Interview with Deutschlandfunk Kultur (March 1, 2022)

(c) Social Media/Blogs/Other Media/Talks

211. Cosh, A. and Caselli, G. Twitter (CBR: @CambridgeCBR; Cambridge Ahead: @CambAhead; Cambridgeshire and Peterborough Combined Authority: @CambsPboroCA; Greater Cambridge Partnership: @GreaterCambs).
212. Cosh, A. and Caselli, G. Cambridge Ahead (<https://www.cambridgeahead.co.uk/news-insights/2022/science-and-innovation-sectors-in-cambridge-drive-growth-in-regional-employment-despite-pandemic-turbulence/>).
213. Cosh, A. and Caselli, G. Cambridge Network (<https://www.cambridgenetwork.co.uk/news/knowledge-intensive-sectors-ensure-greater-cambridge-employment-rates-grow-despite-covid>).
214. Cosh, A. and Caselli, G. Cambridge& (<https://cambridgeand.com/a-unique-ecosystem/cluster-map>).
215. Cosh, A. and Caselli, G. Greater Cambridge Partnership (<https://www.greatercambridge.org.uk/future-investment/research-evidence>).

216. Cosh, A. and Caselli, G. ScaleUp Institute (<https://www.scaleupinstitute.org.uk/programmes/cambridge-cluster-insights/>).
217. Cosh, A. and Caselli, G. University of Cambridge Business and Enterprise (<https://www.cam.ac.uk/business-and-enterprise>).
218. Connell, D. (2021) 'Is the UK's Flagship Industrial Policy a Costly Failure? An Independent Reappraisal of the Objectives, Theory, Practice and Impact of the UK's £7.3 Billion a Year R&D Tax Credits and £1.1 Billion a Year Patent Box Schemes', published in May 2021, continued to attract a good deal of interest from policymakers during the CBR reporting year, particularly after it was cited in Chancellor Rishi Sunak's Mais lecture on 24th February 2022.
219. Connell, D. Sunak included one of Connell's recommendations, the removal of R&D tax credits for R&D carried out by British companies outside the UK, in his March 23rd 2022 Spring Financial Statement, and further changes in the policy are due to be announced in the Autumn. According to an article in the Financial Times on 2nd March 'Sunak has been inspired by a Cambridge University report which asked 'Is the UK's Flagship Industrial Policy a costly Failure?'
220. Gudgin, Coutts, Martin, Series of articles by Graham Gudgin on aspects of Brexit for the Centre for Brexit Studies
221. Gudgin, Coutts, Martin, Birmingham City University, Spiked, C and the BriefingsforBritain websites
222. Konzelmann, S. 'Economic Statement on the Cost of Living Crisis'. launched by John McDonnell MP, former shadow Chancellor. June 2022
223. Kitson, M. 'Greater business-university collaboration will reap rewards': Centre for Business Research University of Cambridge, March 28th, 2022, <https://www.cbr.cam.ac.uk/insight/2022/greater-business-university-collaboration-will-reap-rewards/>
224. Kitson, M. 'Future economy relies on greater business-university interaction'. Imperial College, London, March 24th 2022, <https://www.imperial.ac.uk/news/235039/future-economy-relies-greater-business-university-interaction/>
225. Konzelmann, S. 'Inequality: The Issue of Our Time.' 2022. London: Kings College London. <https://www.listenotes.com/podcasts/inequality-the/solutions-x1QL9wZUN7r/>
226. Konzelmann, S. 'From Covid to Carbon: What the Pandemic can Teach Us about Getting to Net Zero.' 2021. London: Birkbeck, University of London. <https://www.youtube.com/watch?v=P93ZJdNmW3g>
227. Konzelmann, S. 'The Return of the State: Restructuring Britain for the Common Good – Book Promotion.' 2021. London: Progressive Economy Forum. <https://www.youtube.com/watch?v=-USKfdCfXfg>
228. Konzelmann, S. 'The Return of the State: Restructuring Britain for the Common Good – Chapter Promotion.' 2021. London: Progressive Economy Forum. <https://www.youtube.com/watch?v=MUjWlx4I3U>

229. Konzelmann, S. 'Integrating Policy – and Policy-makers.' Policy Brief: Labour Economic Policy – Narrative and Ideas. 2021. London: Progressive Economy Forum.
230. Konzelmann, S. 'The Return of the State: Restructuring Britain for the Common Good'. Panel Event Organised by the Cambridge Society for Economic Pluralism and the Cambridge University Labour Club. University of Cambridge, Cambridge, UK (Online), 24 February 2022.
231. Konzelmann, S. 'Introduction.' Paying for Coronavirus and the Recovery: The Return of the State. SOAS, University of London. London, UK (Online), 6 October 2021. <https://soas.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=66e5fa03-32d9-494e-b324-adb901270b5a>
232. Liptrap, J.S. 'The Dark Side of Colombia's Benefit Corporation' European Corporate Governance Institute Blog (NB: a more detailed version of this piece also features on the Oxford Business Law Blog)
233. Ruggeri, K. Temporal discounting research has had huge response on social media (Altmetric score already over 300)

MPhil & PhD students supervised (incl.topic)

234. Cosh, A. and Caselli, G. MSt in Sustainability Leadership Cohort 13: 2022-2024, Cambridge Cosh, A. and Caselli, G. Institute for Sustainability Leadership, *Sustainable Finance* (planned).
235. Cosh, A. and Caselli, G. MSt in Sustainability Leadership Cohort 12: 2021-2023, Cambridge Institute for Sustainability Leadership, *Sustainable Finance* (planned).
236. Cosh, A. and Caselli, G. DBA, University of Liverpool Management School, External Examiner.
237. Deakin, S., supervised Bhumika Billa (Ph.D., Cambridge).
238. Deakin, S., supervised Lily Hands (Ph.D., Cambridge).
239. Deakin, S., supervised Joseph Liptrap (Ph.D., Cambridge).
240. Deakin, S., supervised Julien Miéral (Ph.D., Cambridge).
241. Deakin, S., supervised Andrea Peripoli (Ph.D., EUI).
242. Deakin, S., supervised Andrew Sagar (Ph.D., Cambridge).
243. Deakin, S., supervised Tvisha Shroff (Ph.D., Cambridge).
244. Deakin, S., supervised Zhenbin Zuo (Ph.D., Cambridge).
245. MacKenzie, NG. supervised Shannon Harris – PhD. 'Entrepreneurial opportunities and religious beliefs'. University of Glasgow, 2022.
246. MacKenzie, NG. supervised Ross Croall – PhD. 'Rebalancing supply and demand in the Scottish innovation system – understanding the skills gap'. University of Strathclyde, 2021.

247. MacKenzie, NG. supervised Margaret Coughtrie – PhD. ‘The efficacy of financial instruments for supporting SMEs – the Scottish Co-Investment Fund’. University of Strathclyde, 2021.
248. Konzelmann, S. supervised Elizabeth Hornby. A Study of Institutionalised Whistleblowing Policies in UK Banks. Department of Management, Birkbeck, University of London, PhD completed in 2021.
249. Konzelmann, S. supervised Louise Redmond. Governing corporate culture: Board practices for long term corporate success and greater public trust in business. Department of Management, Birkbeck, University of London, PhD submission deadline September 2022

Training courses attended

250. Cosh, A. and Caselli, G. *Group Project Norming Exercise*, Cambridge Institute for Sustainability Leadership, Cambridge, UK, 8 June 2022.
251. Cosh, A. and Caselli, G. *The impact of the pandemic on the IFRS9 framework*, Associazione Italiana Financial Industry Risk Managers (AIFIRM), Italy, 13 May 2022.
252. Cosh, A. and Caselli, G. *Bank credit to SMEs: technological innovation, ESG perspective and support to the circular economy*, Università degli Studi dell’Insubria, Italy, 4 May 2022.
253. Cosh, A. and Caselli, G. *New Tutor Onboarding*, Cambridge Institute for Sustainability Leadership, Cambridge, UK, April 2022.
254. Reinsberg, B. ‘Leading successful teams’, University of Glasgow (one-semester course)

4. Staff

Research Staff

Louise Bishop, Research Fellow
Bhumika Bhumika, Research Assistant
Giorgio Caselli, Research Fellow
Andy Cosh, Senior Research Fellow
Anca Cojocaru, Research Assistant
Simon Deakin, Director
Andrew Foster, Research Assistant
Mona Jebril, Research Fellow
Michael Kitson, Assistant Director
Joseph Liptrap, Research Assistant
Christopher Markou, Research Fellow
Gaofeng Meng, Research Fellow
Chris Pang, Research Assistant
Kai Ruggeri, Senior Research Fellow
Federica Stablum, Research Assistant

Administrative Staff

Jill Bullman, Accounts Clerk
Stephanie Saunders, Administrator
Rachel Wagstaff, Receptionist, Publications Secretary & PA

Visiting Fellows/PhD Students

Bothaina Attal (CARA Visiting Fellow)
Christophe George, University of Lausanne, Switzerland
Akio Hoshi, Gakushuin University, Japan
Aristea Koukiadaki, University of Manchester
Andrea Peripoli, European University Institute, Florence
Antonis Ragkousis, Kings College London
Simon Turner, University of Los Andes, Colombia

6. Research Associates

Research associate status may be conferred on project leaders and members of projects who do not otherwise have a position in the CBR, and to former members of the CBR research staff who are still involved in the relevant projects. This category includes personnel in other University of Cambridge departments as well as from outside the University of Cambridge; these affiliations are indicated below. The following were research associates in the period 2021-22:

Zoe Adams (Faculty of Law, University of Cambridge)
David Angenendt (School of Management, Technical University of Munich)
John Armour (University of Oxford)
Catherine Barnard (Faculty of Law, University of Cambridge)
Sveta Borodina (CBR)
John Buchanan (CBR)
Anna Bullock (CBR)
Brendan Burchell (Department of Sociology, University of Cambridge)
Dominic Chai (CBR)
Lorraine Charles (CBR)
Brian Cheffins (Faculty of Law, University of Cambridge)
Ding Chen (University of Sheffield)
Anna Christie (University of Edinburgh)
David Connell (CBR)
Andy Cosh (CBR)
Adam Coutts (Department of Sociology, University of Cambridge)
Ken Coutts (Faculty of Economics, University of Cambridge)
Adel Daoud (Harvard University)
Panos Desyllas (University of Bath)
Jacob Eisler (University of Southampton)
Tomas Folke, (Columbia University)
Marc Fovargue-Davies (CBR)
Xiaolan Fu (University of Oxford)
Adam Golden (Costain PLC)
Mia Gray (Department of Geography, University of Cambridge)
Graham Gudgin (Regional Forecasts Ltd)
Paul Guest (University of Surrey)
Antara Haldar (Faculty of Law, University of Cambridge)
John Hamilton (CBR)
Jonathan Haskel (Imperial College, London)
Jonathan Hay (CBR)
Alan Hughes (CBR)
Hannes Jarke (European Patients Forum)
Mona Jebriil (Faculty of Education, Cambridge)
Andrew Johnston (University of Sheffield)
Ian Jones (Brasenose College, Oxford and London Business School)
Daiga Kamerade (University of Salford)
Dionysia Katelouzou (Kings College, London)
Alex Kentikelenis (Bocconi University, Milan)
Larry King (University of Massachusetts, Amherst)
Jodie Kirshner (Columbia University)

Suzanne Konzelmann (Birkbeck, University of London)
Aristea Koukiadaki (University of Manchester)
Jacqui Lagrue (Cambridge Political Economy Society)
Henry Lahr (Open University)
Cornelia Lawson (University of Manchester)
Tony Lawson (Faculty of Economics, University of Cambridge)
Joseph Liptrap (University of Cambridge)
Alicia Loh (University of Cambridge)
Ana Lourenço (Católica Porto Business School, Portugal)
Niall MacKenzie (University of Glasgow)
Ben Martin (SPRU, Sussex)
Bill Martin (CBR)
Ron Martin (Department of Geography, University of Cambridge)
Ewan McGaughey (King's College, London)
Colm McLaughlin (University College, Dublin)
Jacob Meagher (Brighton Business School)
Gaofeng Meng, (SOAS, University of London)
Stan Metcalfe (CBR)
Henning Meyer (Social Europe)
Philippa Millerchip (Cambridge Political Economy Society)
Andrea Mina (Santa Ana School of Advanced Studies, Pisa)
Tim Minshall (Cambridge Entrepreneurship Centre)
Viviana Mollica (University of East Anglia)
Helen Mussell (CBR)
Yoshi Nakata (Doshisha University, Kyoto, Japan)
Marco Nerino (Kings College, London)
Wanjiru Njoya (University of Exeter)
Julia Powles, (University of Western Australia)
Stephen Pratten (King's College, London)
Jocelyn Probert (CBR)
Gavin Reid (University of St Andrews)
Bernhard Reinsberg (University of Glasgow)
Bob Rowthorn (Faculty of Economics, University of Cambridge)
Kai Ruggeri (Policy Research Group, Cambridge)
Ammon Salter (University of Bath)
Navajyoti Samanta (University of Sheffield)
Paul Sanderson (Anglia Ruskin University)
Prabirjit Sarkar (Jadavpur University, Kolkata)
Gerhard Schnyder (King's College, London)
Mathias Siems (Durham University)
Boni Sones, CBR Policy Officer
Rod Spires (PACEC)
Federica Stablum (CBR)
Frank Stephen (University of Manchester)
Thomas Stubbs (Royal Holloway, University of London)
Carole Talbot (CBR)
Colin Talbot (CBR)
Simon Turner (University of Los Andes, Bogotá)
Peter Tyler, (Department of Land Economy, University of Cambridge)
Boya Wang (University of Oxford)

Hugh Whittaker (University of Oxford)
Enying Zheng (Beijing University)

7. Advisory Board

(at 31 July 2022)

Kate Barker CBE, DBE
Chair, CBR
Business Economist

Catherine Barnard
Professor
Faculty of Law, University of Cambridge

Ha-Joon Chang
Director
Centre of Development Studies, University of Cambridge

Frederique Dahan
Head of Financial Institutions Operations, Policy Dialogue and Grant Management
European Bank for Reconstruction and Development

Simon Deakin
Director
CBR

Gill Dix
Head of Strategy
Advisory Conciliation and Arbitration Service

Tom Goodwin
Assistant Director for WTO
Department for International Trade

Morten Hviid
Professor
UEA Law School, University of East Anglia

Michael Kitson
Assistant Director
CBR

Iain MacNeil
Professor
School of Law, University of Glasgow

Simon Marsh
Employment and Communications Director
Chemical Industries Association

John Naughton
Senior Research Fellow
CRASSH, University of Cambridge

Jacqueline O'Reilly
Professor, University of Sussex Business School
Director, Digital Futures at Work Research Centre

Jennifer Rubin
Chief Scientific Adviser and Director General Science, Technology, Analysis, Research and Strategy
Home Office

Stephanie Saunders
Administrator
CBR

Isabelle Schömann
Confederal Secretary
European Trade Union Confederation

Isabel Taylor
Partner, specialist in competition law
Slaughter & May

Janet Williamson
Senior Policy Officer, specialist in corporate governance
Trades Union Congress

8. Committee of Management

(at 31 July 2022)

Catherine Barnard
Faculty of Law
University of Cambridge

Brendan Burchell
Department of Sociology
University of Cambridge

Simon Deakin
Director
Centre for Business Research
University of Cambridge

Mauro Guillan
Director
Judge Business School
University of Cambridge

Andrew Harvey
Faculty of Economics
University of Cambridge

Sean Holly
Director of Research
Faculty of Economics
University of Cambridge

Michael Kitson
Assistant Director
Centre for Business Research
University of Cambridge

Ron Martin
Department of Geography
University of Cambridge

Tim Minshall
Institute for Manufacturing
University of Cambridge

Pippa Rogerson (Chair)
Faculty of Law
University of Cambridge

Stephanie Saunders
Administrator
Centre for Business Research
University of Cambridge

Peter Tyler
Department of Land Economy
University of Cambridge

9. Performance Indicators

The following Tables contain details of key performance indicators. They are mostly as agreed in the original contract with the ESRC. With the end of core funding, these are no longer binding on the CBR, but we continue to benchmark our performance by reference to them.

A. PUBLICATIONS

<i>Year</i>	94-02	Jan-Dec 2003	Jan-Dec 2004	Jan 2005-July 2006	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	Total
Refereed journal articles	260	33	33	23	31	28	26	30	15	33	38	36	18	24	37	25	57	38	61	38	884
Books	55	7	9	5	8	5	8	3	0	4	6	5	1	2	2	2	7	3	4	2	138
Chapters in books	264	29	9	12	19	8	11	15	17	20	30	27	13	18	16	7	33	20	15	20	603
Other publications	495	52	53	48	17	34	30	57	45	55	14	52	36	6	44	57	25	26	15	23	1184
Datasets deposited at ESRC the Data Archive	10	8	3	1	1	0	6	2	0	4	7	1	0	8	0	0	0	0	0	39	90

**Totals shown exclude books, chapters, articles, and papers which were in draft, in press or forthcoming as of 31 July 2022*

B. EXTERNAL DISSEMINATION

<i>Year</i>	94-02	JanDec 2003	JanDec 2004	Jan 2005-July 2006	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	Total
Conference papers	544	75	112	76	81	100	76	79	48	90	93	78	32	53	67	41	59	43	38	34	1819
TV, Radio, film	54	4	1	1	1	1	0	2	0	2	0	6	8	4	11	3	7	8	2	2	117
Newspapers, magazines, websites, blog & other media	112	14	13	13	6	4	1	17	11	17	7	18	2	11	66	8	68	82	34	30	534

C. STAFF RESOURCES

Year	94-02	JanDec 2003	JanDec 2004	Jan 2005- July 2006	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Research Staff																				
1. Individuals	159	22	26	25	18	20	18	16	13	13	17	17	19	19	15	16	16	14	15	15
2. FTEs†	125	14	12.15	17.7	11.6	14.1	11.9	9	8.8	9.2	8.7	10.3	10.25	7.73	5.88	5.64	5.31	6.84	7.06	5.5
Support Staff																				
1. Individuals	83	8	8	7	7	6	6	7	6	5	5	7	6	4	3	3	3	3	3	3
2. FTEs	37.25	4.75	4.75	4.5	4.0	3.6	3.6	4.25	3.6	3.5	3.5	3	2.25	1.92	1.77	1.72	1.72	1.72	1.72	1.72

† Including a notional allocation representing a proportion of the time of the Director and Assistant Director (0.4 FTE in each case)

* In 2010 the CBR reviewed its research associate list and redefined the category to include continuing substantive involvement in current projects and publications. This led to a reduction in numbers of individuals formerly listed for example as parts of collaborative networks, as well as normal reductions due to retirement etc.

D. FINANCIAL RESOURCES

Year	Jan 1994 to Jul 2013	Aug13 - Jul14	Aug14 - Jul15	Aug15 - Jul16	Aug16 - Jul17	Aug17 - Jul18	Aug18 - Jul19	Aug19 - Jul20	Aug20 - Jul21	Aug21 - Jul22	Accumulated Totals
		£	£	£	£	£	£	£	£	£	£
ESRC Core Funding	5,025,006	0	0	0	0	0	0	0	0	0	5,025,006
Other ESRC Funding	3,882,201	703,226	404,705	178,847	98,254	191,046	286,800	345,470	442,751	236,203	6,769,503
Funding from Host Institutions	711,680	0	0	20,000	0	0	0	0	0	0	731,680
Other Funding Total of which:	5,767,974	112,000	232,510	303,051	239,143	250,180	225,821	267,392	247,187	167,639	7,812,897
1. OST and other RCs	814,715	48,400	110,620	33,826	0	0	0	0	18,867	18,984	1,045,412
2. UK foundation	1,914,357	42,600	55,927	220,165	167,666	137,219	69,615	165,145	128,370	53,703	2,954,767
3. UK industry/commerce	204,437	0	39,900	38,670	71,477	112,961	128,417	73,972	48,150	36,000	753,984
4. UK local authority	239,739	0	0	0	0	0	0	0	51,800	21,000	312,539
5. UK Central Government	967,904	17,700	0	0	0	0	4,135	0	0		989,739
6. UK health	12,766	0	0	0	0	0	0	8775	0		21,541
7. UK voluntary	25,062	0	0	0	0	0	3,389	1,500	0		29,951
8. EU	848,399	0	0	0	0	0	0	0	0		848,399
9. Other Overseas	740,594	3,300	26,063	10,390	0	0	20,265	18,000	0	37,952	856,564
Overall Total	15,386,861	815,226	637,215	501,898	337,397	441,226	512,621	612,862	689,938	403,842	20,339,086