

Institution: City, University of London
Unit of Assessment: C16 Economics and Econometrics
<p>1. Unit context and structure, research and impact strategy</p> <p>Our vision is to be the distinctive collegial interdisciplinary Economics department. To achieve this, we have created an environment designed to foster world-class research that is rigorous, relevant, innovative and influential. We have built on our tradition of engagement with industry practitioners and expanded our sphere of influence, forging new collaborations and deepening existing ones. We aim to influence the intellectual and strategic agenda of current and future economists as well as contribute to the wellbeing of society.</p> <p>Current phase: expansion and transformation</p> <p>Since REF2014, this Unit of Assessment (UoA), which sits within the School of Arts & Social Sciences (SASS) at City, University of London (UoL), has embarked on an exciting phase of expansion and transformation: 50% of existing members have been hired in the past five years and the head count has risen from 22 to 34 staff members during this REF cycle. In terms of Category A submitted staff, there has been an increase from 13.7 to 27.2 full-time equivalents (FTEs). The department's strategy of adopting transformative incentives has strengthened the research environment, enhanced its ability to produce high-quality research and enabled greater impact.</p> <p>With the purpose of encouraging collegiality and providing an infrastructure to specialist areas, the department's scholarly activities have been organised into three main clusters – economic theory, applied microeconomics and macro-finance – and two interdisciplinary research centres – the City Health Economics Centre (CHEC) and the Centre for Competition and Regulatory Policy (CCRP).</p> <p>In the economic theory cluster, six new members (in bold) have joined the research groups in behavioural and experimental game theory (Galanis, Georganas, Schlegel, Ungureanu) and in applied industrial organisation (Banal-Estanol, Celik, Che, Dassiou, Nikandrova, Silva Junior, Zauner). The extensive policy work conducted by members of this second group is supported by the CCRP.</p> <p>In the applied microeconomics cluster, seven new members have been hired. This is primarily to reinforce our research in health economics (Jofre-Bonet, Lalotis, Pinchbeck, Serra-Sastre, Suziedelyte) – which is backed by the interdisciplinary CHEC, a joint venture between the department and City's School of Health Sciences – but also to complement our research in international trade and development (Celik Katreniak, Defever, Jafarey, Mesnard, Riano) and in migration (Ben-Gad, Jafarey, Lalotis, Mesnard, Yaman), and to open up a new area of research: urban economics (Faggio, Pinchbeck, Yaman).</p> <p>In the macro-finance cluster, the groups of macroeconomics (Ben-Gad, Jafarey, Pearlman, Pilbeam) and finance (Corsi, Delaney, Iori, Jafarey, Jain) have been reinforced by two new members (Defever, Riano) working primarily in international trade but with complementarities in fiscal policy and international finance. The department also maintains links with previous members who greatly contributed to the development of its research culture and environment, especially Dionysius Glycopantis (City Emeritus Professor) and Simon Price (University of Essex).</p> <p>Joining the UoL consortium in 2016 was a recognition of the university's achievements in striving to become 'a leading global university committed to academic excellence' (as set out in City's Vision and Strategy 2026 (VS2026) and highlighted in REF5a, section 2). It also marked a new chapter in City's history, accelerating alignment of the university's standards and practices with those of the other UoL members and providing a renewed emphasis on research excellence. Being part of the UoL has greatly benefited this UoA in terms of hiring talent, branding for undergraduate enrolment (which finances growth), branding for postgraduate research student (PGR) recruitment and expanding PGR training opportunities.</p>

This greater emphasis on research has been felt both at the school and the department levels, where a series of transformative incentives conducive to higher-quality research have been adopted during the current REF cycle. These include the university's Annual Research Quality Monitoring (ARQM) process, which reviews the quality of staff research output against REF criteria on a regular basis; a new promotion policy with clearer criteria concerning research excellence as a necessary condition for promotion; a more transparent workload model which ensures that staff on a research and education contract are able to devote at least 40% of their time to research; a generous teaching buy-out policy whereby external research and consultancy income buys replacement teaching; availability of pump-priming internal research grants providing initial support to promising research initiatives; and a flexible sabbatical leave policy.

Thanks to these transformative incentives and the department's rigorous recruitment and promotion process, since REF2014 this UoA has made significant progress in at least three dimensions: (i) improving its research output and publication record, (ii) strengthening its PhD programme and (iii) putting greater emphasis on research income.

With promotion and recruitment criteria clearly aligned with the highest sector standards, it has become the expected norm in the department to publish in world-class high-impact journals, top-20 general-interest journals and top-quality specialist-field journals. In our REF2021 output list, more than 95% of papers are in journals with ratings of 3 or 4 (according to the Chartered Association of Business Schools' Academic Journal Guide or ABS Guide) whereas the equivalent figure in our REF2014 submission was 72%. According to the 2009 paper titled *A Journal Ranking for the Ambitious Economist*, which ranks journals based on their citations in seven top general-interest journals, 87% of the papers included in our REF2021 submission were published in the top 50 journals in economics, compared to 50% in our REF2014 submission.

Furthermore, the department has strengthened its PhD programme and adopted incentives to raise the quality of PhD candidates' training and research output. These incentives include:

- (i) The introduction of a taught PhD program in 2014. The program, which is jointly run by Birkbeck's, City's and Royal Holloway's economics departments, requires all incoming PhD students to complete bespoke modules in macroeconomics, microeconomics and econometrics.
- (ii) The formalisation of the upgrade process from the MPhil to the PhD programme. Students are now required to complete and present the first chapter of their thesis within the first 18 months of enrolment.
- (iii) City joining the South East Network for Social Sciences (SeNSS) in 2016 (a £9.1m Economic and Social Research Council (ESRC) doctoral training consortium running from October 2017 to September 2027) and the Bloomsbury Postgraduate Skills Network in 2019, with the aim of raising the quality of our PhD programme to match the best practice of the other participating institutions.
- (iv) City creating the new Doctoral College in 2019 to improve the student experience, progression rates and completion rates across the university (see also REF5a, section 1).

Thanks to these incentives and the department's commitment to strengthening its PhD programme, since REF2014 we have successfully supervised and awarded 20 doctoral degrees, with an average time of submission of 4.06 years. The first destination of our PhD graduates has also improved. Recent graduates have gained positions at renowned institutions such as the Bank of England, the Bank of Italy, the IMF, HSBC, KPMG, McKinsey & Company, and University College London (UCL).

Additionally, some members of the department have been successful in securing prestigious external research grants. In collaboration with the Department of Health Policy at the London School of Economics (LSE), **Serra-Sastre** was awarded two external research grants (the second with **Faggio**) from the Health Foundation and **Laliotis** received a third. Additionally, **Pearlman** was part of a pan-European university consortium successful in attracting EU funding. The department has also attracted smaller research grants through the British Academy/Leverhulme and the Centre for Global Development (**Iori**, **Georganas**, **Mesnard**). See further details of these grants in section 3.

In addition, staff members (**Celik Katreniak, Che, Delaney, Faggio, Galanis, Laliotis, Pinchbeck, Schlegel, Silva Junior**) have taken advantage of a SASS pump-priming funding scheme (with individual awards of £5,000–10,000) that supports promising research initiatives in their transition towards external grant applications. This effort has led to a rise in the number of grant applications submitted (out of 29 applications submitted between 2014 and 2019, 16 were prepared in the past two years) and **Galanis** (Principal Investigator) being awarded a £497,700 ESRC grant at the end of 2020.

Future phase: consolidation

Following this period of expansion and introduction of incentives, we expect the next REF cycle to be a period of consolidation. We expect to keep growing but at a slower rate. More importantly, we expect to reap the rewards of all the changes introduced and improve our performance in terms of publication record, PhD completion, external grant capture, hiring talent, visibility and impact.

Regarding the department's research strategy, our goals are to consolidate our record for impactful research on relevant issues, leading to publications in 3 and 4 ranked journals, especially the five highest ranked ABS journals, and to recognise our heterogeneous research strengths. To this end, the department has already introduced a sharper incentive system: top five ABS rated publications receive a double weight in the promotion criteria. There are signs that this strategy is bearing fruit, given two recent invitations to revise and resubmit papers to the *American Economic Review* (**Celik Katreniak**) and the *Review of Economic Studies* (**Galanis**). In addition, the department is committed to supporting staff who have interests beyond economics; staff have published in top journals in management (*European Journal of Operational Research, Management Science, Operational Research, Research Policy*) and health economics (*Health Policy, The Lancet, PLOS ONE, Social Science & Medicine*). During the next cycle, we will continue to promote high-quality interdisciplinary research, a goal that is consistent with City's research and impact strategy (see REF5a, section 2).

Given the size of our current PGR cohort (22 students) and our recent intake of PhD candidates (five per year in the past two years), in the coming years the size of our PhD programme should catch up with our recent staff increases and we expect to double the number of degrees awarded in the next REF cycle. A larger PhD programme will be instrumental in increasing the visibility of the department (e.g. through participation in the US and European academic job markets) and in fostering the dynamism and richness of its research life (i.e., more and better prepared PhD candidates).

A key strategy to support the growth of the PhD programme is to deepen and extend our network of collaborations with academic and non-academic institutions, including industry. We have already made progress in this direction. Starting in 2021/22, the Office of Health Economics (OHE) will sponsor two part-time student scholarships a year to attend City's MSc in Health Economics or MSc in Economic Evaluation in Healthcare. Directly relevant to our PhD programme, the OHE is planning to sponsor two City PhD student scholarships a year in health economics. The chosen PhD students would participate in the research activity of the OHE two days a week, while concentrating on their academic research in the department for the rest of the time. This collaboration, which would build on the existing links between the department's CHEC and the OHE, is likely to become a pillar of the CHEC's vitality and sustainability in the future.

To stimulate a culture of external grant capture within the department, the recently introduced workload model allocates time to staff members preparing grant applications and rewards them generously if successful. We will continue to take advantage of the SASS pump-priming funding scheme, which facilitated **Galanis's** recent £497,700 ESRC grant award. To improve our success rate, a newly created departmental committee consisting of staff members with grant capture experience will coordinate the department's activity on grants and consolidate individual efforts into larger grant applications. Members of the committee will receive a workload reduction for their time.

In terms of hiring strategy, adopting a six-year career development plan for newly appointed lecturers, with a mid-review at the end of the third year, will further align the department's practices with those of other UoL economics departments. It will also allow us to attract younger talent, set

clear research targets to be achieved within researchers' initial three-year and six-year periods, and provide support in terms of both guidance (a mentor) and resources.

Strategy for impact

This UoA's achievement of impact has been the result of a concerted effort: the adoption of a system of incentives and mechanisms targeting impact introduced at the institution and school levels (see REF5a, section 2); the CHEC and CCRP's core and public engagement activities; the nourishing of interactions and collaborations across academics, policy makers and industry; and the support of interdisciplinary research. The three REF2021 impact case studies submitted provide a clear representation of this UoA's impact strategy.

The impact case study by **Jofre-Bonet** (ICS1) describes her decisive impact on health care policy making in Sierra Leone. One of Jofre-Bonet's former PhD students (Joseph Kumara) gained a high-profile position in the Sierra Leone government and facilitated the introduction of a health insurance scheme for that country's informal sector. As Kumara's supervisor, Jofre-Bonet was instrumental in gathering the Sierra Leone government's support and in shaping the policy. She directly advised the government on the specifics of the implementation between 2016 and 2018. In the development of ICS1, Jofre-Bonet received internal funding and further training by SASS-engaged impact consultants (see REF5a, section 2).

The impact case study by **Banal-Estanol** (ICS2) illustrates how the pathway to impact rests on CCRP's core activities and individual public engagement. Banal-Estanol's research on the functioning of wholesale markets for gas and electricity has shaped Ofgem's approach to evaluating energy markets. This result has been facilitated by a series of CCRP roundtables (organised between 2014 and 2018) that focused on the UK gas and electricity markets, inviting prominent speakers in the field (see section 4). Impact has also been achieved through Banal-Estanol's growing reputation as a technical expert in energy markets, advising government officials and industry practitioners in both developed (the European Commission's Directorate General for Competition, or DG Comp) and developing (in collaboration with the African Forum for Utility Regulators, the EU and the World Bank) countries.

Lastly, the impact case study by **Mesnard** (ICS3), focused on human smuggling and cannabis consumption, has benefited from interactions and collaborations within the department's research group on migration as well as from incentives and mechanisms targeting impact that have been set up at the institutional, school and departmental levels. At the onset of her impact activities, Mesnard received funding through the SASS Research Impact Development Fund. She then received media training and liaised with the SASS Senior Communication Officer, who oversees the school's media activities. She next attended a series of SASS impact-related workshops as well as one-to-one sessions led by impact consultants. All this contributed to her work attracting media attention: it has commanded 20 citations in nationwide newspapers across eight countries (e.g. *France24*, *The Guardian*, *Le Matin*, *Le Monde* and *La Repubblica*); citations in international online news sites and blogs; and TV and radio appearances in Argentina, France, Italy and Russia.

Mesnard's ICS3 has also laid the foundation for the development of further impact activities that are likely to enrich the department's future strategy. In collaboration with City-based sociologist Liza Schuster, **Jafarey** and **Mesnard** have built an interdisciplinary, stakeholder-led and participatory-action-focused research network on development and displacement in South Asia: the **South Asian Development and Displacement Network** (SANDD). During the next REF cycle, the department aims to embed the SANDD network into its research structure with the creation of a new interdisciplinary **Centre on Migration**.

Open research environment

To support open access to research, the deposit of published articles in a full-text digital repository, City Research Online (CRO), has been required since 2012. CRO incorporates both bibliographic data and the full text of outputs, which are automatically Google-indexed. In addition, early-stage research in the department is made visible to the public via our Discussion Paper series (online). Our discussion papers have been indexed within Research Papers in Economics (RePEc) since 2003, providing a further venue for research dissemination (in the RePEc repository, the department is in the top 8% of economic institutions in the world for downloads). The SASS

Research Office provides full support for uploading of texts and copyright checking. All staff have an ORCID. Our future strategy is to prioritise open science activities, capitalising on CRO and the university's Figshare research data repository (see REF5a, section 2).

Research integrity

The department upholds the overarching importance of research integrity and the standards agreed by the Concordat (see REF5a, section 2). The department's Research Committee has research integrity as a standing item on its agenda, with the Ethics chair (**Georganas**) being a permanent committee member and the Research Integrity Champion (**Galanis**) attending as required.

Ethics approval is required for all research projects involving human participants and/or identifiable data, and approval must be obtained before any research begins. This applies to research conducted by both staff and students. Thus, we ensure that our PGR community is aware, via induction procedures, handbook guidance and ongoing supervision, that their research must conform to prevailing ethical, legal and professional frameworks.

The introduction of research ethics management software, which streams applications according to their risk level, has improved the robustness of the monitoring process. The department deals with low-risk applications. A school committee (of which our Ethics chair is a member) deals with higher-risk applications. Unsettled or very high-risk cases are discussed by university-level research ethics committee(s).

The department's Research Integrity Champion is an external member of City's Engineering Research Ethics Committee and a member of City's Research Integrity Steering Group. The latter provides guidance on the implementation of the Concordat at the school and departmental levels.

2. People

Staffing strategy

During the current REF cycle, the department has doubled in size from 13.7 to 27.2 FTEs, with 13 new members joining in the past five years: one as a reader (**Celik**), three as senior lecturers (**Che, Defever, Galanis**) and nine as lecturers (**Celik Katreniak, Faggio, Laliotis, Nikandrova, Pinchbeck, Riano, Schlegel, Silva Junior, Suziedelyte**).

Since 2014, the staffing strategy of the department has focused on hiring researchers with promising potential in terms of their ability to (1) implement our impact strategy and increase our engagement with industry practitioners and (2) explicitly develop our research expertise across a range of sub-fields and disciplines, including by strengthening the two research centres (the CHEC and the CCRP).

A central objective of the department's strategy throughout this REF period has been to attract early- and mid-career scholars with outstanding track records in terms of publications relative to their career level, and this is reflected in the fact that 12 out of 13 of the hires were at lecturer or senior lecturer level. Moreover, we hired early-career researchers (ECRs) whom we believe will strengthen our existing research groups with their expertise on up-to-date research and thinking in their respective fields. Five of the new hires joined as ECRs, some of them following successful post-doctoral assignments: **Laliotis** (University of Surrey), **Pinchbeck** (LSE) and **Suziedelyte** (Monash University).

Simultaneously, we have set up mechanisms to facilitate the development of a thriving and inclusive research environment. To this end, the department ensures that staff with a 'research and education' role profile can devote at least 40% of their time to research. On average, a full-time staff member teaches two modules per year and no staff member, including those on a fixed-term and/or teaching contract, teaches more than three modules per year. In addition, the department supports ECRs to strengthen their research profile by reducing their teaching, administration and dissertation-supervision load in their first two years (typically a reduction of 50% workload relative to experienced colleagues), with scope for teaching to be concentrated in a single term.

Staff development

Since 2014, the staff development strategy of the department has been reshaped in accordance with City's VS2026. VS2026 places a renewed emphasis on staff engagement and City's newly articulated People Strategy aims to create and sustain a positive working environment that inspires and provides opportunities for all employees.

At the departmental level, the career development of all staff is highly valued and is supported and monitored in a number of ways.

Given the relatively small size of this UoA, the **annual appraisal** process for all staff members is conducted by the Head of Department (HoD). This facilitates good communication, equality and inclusiveness. Responsibilities are allocated to ensure that colleagues build on their career progression by developing leadership and teamwork skills and by actively contributing to the life of the department.

Instrumental to the appraisal process is the university's **ARQM** process, whereby the department's Research Committee members review the quality of their colleagues' research output against REF criteria. The exercise additionally fosters a deeper understanding of the research being conducted by colleagues within the department, thereby providing a strong basis for exploring synergies and complementarities between researchers. This has resulted in a series of research collaborations (e.g. **Banal-Estanol, Iori and Jofre-Bonet; Ben-Gad and Pearlman; Faggio and Serra-Sastre**).

In addition to one-to-one mentoring for ECRs, the department has developed a **peer support network** in which every staff member is paired with a small number of colleagues with whom they share similarities and complementarities in their research interests. Those within the network provide colleagues with feedback on working papers and grant applications, and offer general advice on research-related matters. Wider **mentoring support** is also available at the school and university level through the Research and Enterprise Hub, which offers a rich series of workshops, courses and activities to enhance staff research practice. **Delaney, Faggio, Galanis, Georganas, Laliotis, Nikandrova, Ungureanu and Zauner** attended training workshops on effective writing for research grant applications; **Galanis** attended ESRC mock panel training; **Iori and Galanis** are currently enrolled in a two-year part-time Executive Master's in Leadership programme under the apprenticeship level funding scheme at The Business School (formerly CASS), with expected completion in 2021. In addition, **Dassiou, Iori and Jofre-Bonet** attended leadership training and **Mesnard** attended a management training workshop. Furthermore, **Iori and Jofre-Bonet** participated in a media training session, and **Faggio** attended a social media masterclass.

We have implemented a **new promotion policy** with clearer criteria governing research excellence as a necessary condition for promotion. Research performance (particularly publication in top peer-reviewed journals, and submission and acquisition of external research income) and the supervision of PhD students are now explicit conditions for promotion at all levels. Consistent with City's commitment to excellent research that is closely related to commercialisation and knowledge exchange (see REF5a, section 1), both research excellence and impact achievements are key criteria for promotion to a readership or a chair. Since the policy's inception, **Delaney, Faggio, Schlegel, Serra-Sastre, Silva Junior, Suziedelyte and Yaman** have been promoted to senior lecturer; **Defever** and **Galanis** to reader; and **Banal-Estanol** to professor.

We have established a more transparent **workload model** underpinned by the principles of equality and inclusiveness. Full-time research-active staff are supported through reduced teaching loads (as previously discussed). The workload model also allows for supervision of PhD students, preparation of large grant proposals, development of impact case studies and management of the two research centres. These allowances aim to recognise all contributions to the life of the department and ensure that researchers have a fair amount of research time.

The university's generous **sabbatical leave** policy is implemented and fully supported by the department: a member of academic staff may apply for sabbatical leave for up to one full year every seven years they have worked at City. During this REF cycle, 12 faculty members went on sabbatical: six males and six females, six for half a year and six for a full year. During these sabbaticals, staff members strengthened their collaboration networks, visiting departments in Australia, France, Japan, Pakistan and the US.

Research students

During the assessment period, we successfully supervised and awarded 20 doctoral degrees. The average time to submission of these dissertations was 4.06 years (allowing for suspensions and extensions, and weighting for part-time students as appropriate). We currently have 22 PGR students (19 full time and three part time) and 15 of those (68%) are women.

During the next REF cycle, as new hires grow in experience, we envisage a significant improvement in PhD students' completion. There are already hints of progress: the annual intake of PhD students has increased in recent years, growing from an average of three students per year over the period 2014–2018 to five PhD students per year in both 2019/20 and 2020/21.

In addition, the department has made tremendous efforts to improve the quality of its PhD programme since 2014. We expect to reap the rewards of all these changes in the next REF cycle:

- (i) In 2016, City joined the ESRC-funded **South East Network for Social Sciences** (SeNSS) Doctoral Training Partnership. Since then, we have aligned our selection process and recruitment criteria with those shared by the network. Under the SeNSS umbrella, our PhD students have benefited from advanced online research training and other subject-focused training opportunities. For instance, in 2019 three City Economics PhD students attended two workshops on measurement error run by Christopher Bollinger from the University of Kentucky. Also in 2019, City joined the **Bloomsbury Postgraduate Skills Network**, which enabled its PhD students to sign up for a range of research training sessions offered by the network partners, including King's College London (KCL), LSE and UCL.
- (ii) Since 2014/15, all incoming PhD students have been required to complete three bespoke modules (in macroeconomics, microeconomics and econometrics) during their first term. The taught PhD programme has been jointly run by City's, Birkbeck's and Royal Holloway's economics departments since Royal Holloway joined the partnership in 2018/19. PhD students benefit from the expertise of lecturers from the three institutions as well as larger class sizes and networking opportunities.
- (iii) During the second term of their first year, students are required to attend an additional module. With City joining the UoL in 2016, a wider range of learning opportunities has opened up. Since 2016, our PhD students have attended modules offered by the LSE (labour economics, macroeconomics), Queen Mary UoL (econometrics), University of Surrey (dynamic stochastic general equilibrium modelling) and UCL (macroeconomics and behavioural economics).
- (iv) We have formalised the upgrade process from the MPhil to the PhD programme. In addition to passing all the required modules in the first year, PhD candidates need to upgrade within the first 18 months of enrolment. The upgrade consists of two parts: a presentation of their initial research output before department representatives and a written piece of work which is reviewed by the PhD director and a staff member not directly involved in the supervision. If unsatisfactory, candidates may resubmit within three months, and termination or continuation in the programme is then determined.

Some of our PhD students arrive with scholarships from their governments or international scholarship schemes (e.g. Commonwealth Scholarships). Others receive financial support through the university, school or department funds. During the years 2014–2019, three students received university scholarships, and in 2019, one student was awarded a school scholarship (£245,175 in total). In addition, six students were awarded fee waivers (£128,700).

The department also provides financial support for PhD students' participation in local and international conferences, such as the Royal Economic Society (RES) Symposium of Junior Researchers. It also encourages and supports final-year students to attend the European Academic Job Market and the US academic job market (i.e. the Allied Social Science Associations (ASSA) Annual Meeting). PhD students have received financial support to attend summer schools (e.g. Barcelona Graduate School of Economics summer school, Paris School of Economics summer school, the Graduate Institute of Geneva graduate programme) and other training events as well as to carry out research activities such as laboratory and field experiments.

PhD candidates are encouraged to apply for internships at various institutions. Between 2014 and 2019, our students secured internships at the IMF (Aligishiev, Cantelmo, Sabuga), the United Nations Capital Development Fund (Aligishiev), the Financial Conduct Authority (Velias) and the Bank of England (Esady, Sabuga). First destinations of our PhD graduates include international, national, private and academic institutions, including the African Development Bank Group, the Bank of England, the Bank of Italy, the government of Sierra Leone, HSBC, the IMF, KPMG, a London-based hedge fund, McKinsey & Company, UCL Health Policy, Università degli Studi di Perugia, and City, UoL.

Equality and diversity

This UoA has a broad gender balance and spread across senior academics and younger scholars. The department comprises 17.5 male and 9.7 female FTEs. About 30% of senior positions (reader and professor) are occupied by women and a female professor (**Iori**) was the Department Head from 2017 to 2020. As a result, the department has one of the most even gender balances of all economics departments in the UK. According to the RES's report titled *The Gender Balance in UK Economics Departments and Research Institutes in 2016*, only two departments out of 55 have a higher proportion of female professors than ours (see RES Report, 2017, Table A11, p35–36).

The demographics of our department are truly international. Out of 34 staff members (head count), four come from the UK, 19 from the EU and 11 from countries outside the EU. Out of 22 PGR students, four are from the EU and 18 from countries outside the EU and the UK.

This UoA actively pursues the development of a thriving and inclusive research environment, where fixed-term and full-time staff members have equal access to research funding opportunities. The two groups are similarly supported in conference attendance, skill upgrading, training and personal development courses. Staff administrative support and office space are allocated on an equal basis to fixed-term and full-time staff members.

The department has a family-friendly policy (e.g. all meetings are scheduled between 10am and 4pm). **Serra-Sastre** was involved in redesigning SASS's parental leave policy, which now includes a teaching reduction within the first year of return from maternity leave. Staff are supported in their phased return to work through ten 'Keeping in Touch' days and continue to accrue sabbatical entitlements while on parental leave. SASS has also recently implemented a policy whereby the parental leave taken by PhD students does not count towards the overall suspension-of-study limits allowed by the programme.

The department is fully committed to acting in accordance with the university's policy on equality, diversity and inclusion (VS2026), as evidenced by its gender balance, wide internationalisation, equal research opportunities offered to full-time and fixed-term staff, and use of flexible working policies.

City has been a member of the Athena SWAN Charter since February 2014 and recognises gender equality as 'its most pressing challenge' (VS2026). In 2017, City achieved the Athena SWAN Bronze Award for its commitment to gender equality. This was achieved under the leadership of **Iori** (who was appointed both chair of City's Gender Equality Working Group and chair of City's Athena SWAN Self-Assessment Team in 2015) and with **Jofre-Bonet** as a member of the university's Athena SWAN Self-Assessment Team, which prepared and submitted the application. **Jafarey** currently serves as the People and Culture Lead within the department and is also part of the School Athena SWAN Self-Assessment Team, which prepared SASS's application for Athena SWAN Silver in November 2020.

The university is also actively working to address the gender pay gap and has been conducting equal pay gap audits since 2015. This has resulted in City's gender pay gap (ordinary pay) decreasing by 2.5 percentage points (pp), from 16.2% in March 2017 to 13.7% in March 2018. Corresponding figures for SASS show an even brighter picture: the gender pay gap has decreased by 5.1pp, from 16.8% in 2016/17 to 11.7% in 2017/18, while the total gender pay gap (ordinary and bonus pay) has decreased by 6.6pp, from 18.6% in 2016/17 to 12.0% in 2017/18. At the departmental level, all staff with managerial responsibilities (**Defever**, **Galanis**, **Iori**, **Jafarey**, **Jofre-Bonet**) have undertaken equality and diversity training and attended dignity-at-work workshops.

3. Income, infrastructure and facilities

External income

The department started the current REF cycle benefitting from two large European Commission grants awarded to **Iori** before 2014: 'CRISIS: Complexity Research Initiative for Systemic Instabilities' (£166,109.26) and 'FOCII: Forecasting Financial Crises' (£71,055.47).

During the current REF cycle, staff members were involved in research collaborations and university consortia that were successful in attracting highly competitive and high-profile external research funding. Three prestigious research grants came from the Health Foundation; two additional ones were sponsored by the EU.

Together with the Department of Health Policy at LSE, **Serra-Sastre** was awarded a research grant (with a two-year extension) from the Health Foundation for a project titled 'Health Care Technology Diffusion in the NHS and Workforce Impact' (April 2015–March 2021). The total value of the grant is £500,000, while the share credited to City was £77,362.65.

Also in collaboration with LSE Health Policy, **Serra-Sastre** and **Faggio** were awarded a second research grant from the Health Foundation for 'The Impact of Workforce Turnover and Temporary Staff on Productivity' (June 2019–May 2022). City's share of the grant was £90,376.07 (out of a total of £350,000).

As part of a consortium involving the universities of Leeds and Surrey, **Lalotis** was awarded a third research grant (£500,000) from the Health Foundation for 'Retention of Clinical and Ambulance Workforce in English NHS Hospitals' (September 2019–June 2023). When Lalotis joined City in September 2019, he brought with him his remaining share of the grant (£10,800).

Regarding EU-sponsored initiatives, **Pearlman** was part of a collaborative project titled 'Integrated Macro-Finance Modelling for Robust Policy Design', or MACFINROBODS (May 2014–April 2017). This collaborative research initiative, led by the University of Amsterdam, involved ten universities and research centres across Europe. City's share of the grant was £108,246.21.

Mesnard received a grant subcontract (£23,904.96) through the Université de Liège linked to a European Commission H2020 grant application for a project titled 'Migration Governance and Asylum Crises' (January 2020–November 2021). **Mesnard** also received a £7,500 grant from the Centre for Global Development to analyse how to better control migration flows (December 2015–April 2016).

The department has also attracted two British Academy/Leverhulme small research grants. **Iori** was awarded £9,000 for her project 'Experiment and Computational Models of Over-the-Counter Markets' (April 2014–October 2016). **Georganas** was awarded £10,000 for his work 'Can Technological Solutions Mitigate Information Asymmetries in a Market for Experts?' (November 2018–October 2019). This project was conducted in collaboration with researchers (Filippos Papakonstantinou and Anastasia Andrikogiannopoulou) at KCL.

In December 2020, **Galanis** (Principal Investigator) was awarded a £497,700 ESRC grant in collaboration with Christos Ioannou (Co-investigator; Université Paris 1, Panthéon-Sorbonne) for a project titled 'The Forecasting Efficiency of Prediction Markets' (September 2021–August 2024).

Scholarly infrastructure for research and impact

Research support

Research support in the department operates through its own Research Committee (RC). The RC budget (£37,000 in 2019/20) is allocated across staff members through a fair and transparent procedure. Each member of staff may apply irrespective of their contract type or fraction of employment. Funds are used to support members' research practice and sponsor initiatives that will enhance City's research output's quality and visibility. Such initiatives include conference attendance, research assistance, journal submission and research output dissemination. In 2019/20, ECRs were the largest beneficiaries of this generous departmental funding.

The departmental research budget is also complemented by the HoD's discretionary budget (£14,500 in 2019/20), primarily used to support PhD attendance at conferences, training workshops and summer schools as well as to support staff members with activities related to external grant capture, impact and knowledge exchange. For instance, this fund sponsored the

event in 2018 that led to the creation of the SANDD network. It also co-sponsored the 2020 UK Workshop in Economic Theory held at the University of Kent (in collaboration with the universities of Bristol, Kent and Southampton). City was scheduled to host the 2021 event (postponed).

At the school level, an additional £2,000 Special Allocation budget is available for the organisation of an annual high-profile event. Thanks to this contribution, the department hosted the Health Economists' Study Group Winter 2018 meeting and the 24th annual Workshop on Economic Science with Heterogeneous Interacting Agents (WEHIA) in 2019. Plans were made to host the 13th Workshop on the Economics of Advertising and Marketing 2020 (postponed).

Support for external grant capture

The school maintains a research office comprising a Research Services Support Manager, a Support Officer and a Finance Manager, who provide external research funding support, proposal development support, research ethics expertise, project finance, distribution of awards and external reporting. Their work is facilitated by City's investment in an online research portal, Worktribe (introduced in 2016), which is a cloud-based software platform that facilitates collaboration, efficiency and transparency of funded projects.

The school's research office also organises regular visits from representatives of large funding bodies, such as the British Academy, the EU, the Leverhulme Trust and the Wellcome Trust. In addition, SASS organises grant application writing workshops held by experienced consultants.

Delaney, Faggio, Galanis and **Zauner** benefited from such workshops. Moreover, the school delivers a schedule of specific-call-focused workshops, such as the Global Challenges Research Fund (GCRF) and the ESRC. **Galanis** attended ESRC mock panel training.

External grant capture is supported and encouraged via the use of internal funding schemes such as Research Development Fund pump priming. In the past few years, several members of the department have been successful in attracting early-career pump-priming grants: **Faggio** (2017), **Silva Junior** (2017), **Pinchbeck** (2018), **Schlegel** (2018, jointly with City PhD candidate Velias), **Schlegel** (2019), **Laliotis** (2019), **Celik Katreniak** (2020) and **Delaney** (2020). In addition, **Galanis** (2019) and **Che** (2020) were each awarded a mid-career pump-priming grant (£5,000–10,000).

Furthermore, SASS's research office allocates GCRF funds received by the university to promote interdisciplinary research aimed at helping developing countries achieve their sustainable development goals. **Jafarey** and **Mesnard**, in collaboration with Liza Schuster (City Sociology), won the first prize of £40,000 at the 2019 GCRF competition.

Support for impact

The school's research office also comprises a Business Development Manager (overseeing knowledge exchange and impact) and a Research Impact Officer. Both support the development and implementation of impact activities. They manage two internal funding schemes: the SASS Research Impact Development Fund (RIDF) and the SASS Enterprise and Knowledge Exchange Fund (HEIF), which have been instrumental in the development of such activities within the department.

Banal-Estanol, Defever, Jafarey, Jofre-Bonet and **Mesnard** received funding through the SASS RIDF for the initial phase of their impact activities. **Faggio, Laliotis** and **Serra-Sastre** received funding via the HEIF to organise two networking events: 'The Business Improvement District (BID) Model' (2018) and 'NHS Workforce Challenges' (2020, postponed).

Furthermore, the school organises workshops and one-to-one sessions led by external consultants (e.g. Saskia Gent, Mark Read, Saskia Walcott) who advise on the development of impact activities. **Banal-Estanol, Defever, Faggio, Jofre-Bonet** and **Mesnard** benefited from such initiatives.

Library

The department has access to a world-class library with leading collections in a variety of subjects, both in print and online. Over the current REF period, more than £366,000 was spent by SASS on library resources in the fields of economics and econometrics to maintain a cutting-edge facility for research students and staff. We also have access to specialist resources from other schools

and departments, including The Business School's library collections in the fields of finance, management and actuarial science. As part of the UoL, we have access to the Senate House Library's online resources.

Staff members have access to over 50 specialist business databases, which provide a vital source of information and expert analysis. These resources are supplemented by more than 250 university-wide databases that support education and research. In addition, Library Services purchases and manages thousands of online journal subscriptions, which provide researchers with access to an extensive range of current and archived titles (e.g. via deals with Jisc, NESLI and NESLI2 to access major publishers' online platforms, and via free online access to the *Financial Times* and *The Economist*).

We also have access to a Financial Resources Suite at City's Northampton Square Library, and a dedicated Financial Resources Zone and two simulated trading rooms at City's Bunhill Row site. Representatives from the university's corporate suppliers run training and drop-in sessions at Northampton Square.

Open access

Library Services has a Digital Repository team that manages CRO, our institutional repository. CRO underpins our open access strategy and researcher profiles. It contains over 10,000 research outputs and a growing collection of over 1,500 doctoral theses. The repository team proactively engages with researchers by advocating for open access principles and ensuring conformity with copyright and other rights relating to research outputs. This service develops continuously in line with the rapidly changing open access landscape. This UoA takes open scholarship seriously: it has deposited 314 outputs into CRO since 2014; it is ranked in the top third of 1,000 economics departments and research centres worldwide for total number of downloaded pre-prints and working papers (SSRN repository); and it is in the top 8% of 8,050 economic institutions in the RePEc repository for downloads (past ten years of publications).

4. Collaboration and contribution to the research base, economy and society

Since REF2014, this UoA has extended its network of collaborations and widened its contributions to the economy and society. Such results have been achieved through three channels: the department's effort to increase its profile and visibility, the role played by the two research centres, and the engagement of individual staff members.

The department has organised and hosted four large-scale international conferences: the 49th annual conference of The History of Economic Thought Society in 2017 (**Jefferies** and Andy Denis, City Emeritus Fellow, as organisers); the Health Economists' Study Group Winter 2018 Meeting (**Jofre-Bonet**, **Serra-Sastre** and **Suziedelyte** as organisers), a large-scale conference that attracted more than 150 delegates; the 17th annual conference of the European Economics and Finance Society in 2018 (**Pilbeam**, **Defever**, **Faggio** and **Zauner** as local committee members), which attracted 180 participants; and the 24th annual Workshop on Economic Science with Heterogenous Interacting Agents (WEHIA) in 2019, which attracted more than 250 participants. The organising team, led by **lori** as chair, comprised London-based scholars working in computer science, physics and economics: Fabio Caccioli, Giacomo Livan and Simone Righi (UCL), Tiziana di Matteo (KCL), and **lori** and **Jafarey** (City, UoL).

In 2020, plans were underway for the Economics of Advertising and Marketing 2020 conference (postponed). In July 2020, the department hosted 'COVID-19 and the Economy: Looking Back and Thinking Ahead', an online panel discussion on the economic consequences of COVID-19 (**Jafarey** as organiser, with **Ben-Gad**, **Faggio**, **Georganas**, **Jofre-Bonet**, **Mesnard** and Aditya Goenka (University of Birmingham) as invited speakers).

The department has also hosted several smaller-scale conferences, including a workshop titled 'Macprudential Policies, Inequality, and Financial Inclusion: Redistributive Impacts, and Implications for Financial Stability' (2019), organised by **Pearlman** in collaboration with Margarita Rubio (University of Nottingham). **Pearlman** also organised the Money Macro and Finance Research Group (MMF) PhD conference 2019, sponsored by the Bank of England and Birkbeck Centre for Applied Macroeconomics (for which Pearlman received a £1,000 MMF grant). **Faggio** organised a workshop titled 'The BID Model' (2018), which attracted 50 participants from

Germany, Spain and the UK, and co-organised a dissemination event held at the BID Brixton headquarters in 2019.

City Health Economics Centre (CHEC) activities

During the current REF cycle, the CHEC has strengthened its network of research collaborations (e.g. with LSE Health Policy and the OHE). It has run its own monthly seminar series, inviting health experts from the UK and abroad (e.g. KCL, Purdue University, Universitat Pompeu Fabra, University of York), and has organised the bi-annual events of the London Health Economics Group. Such events are routinely hosted at various London-based institutions, including Imperial College, KCL, NHS Improvement, the OHE and UCL. In 2020, the centre secured internal funding to organise and host a one-day workshop titled 'NHS Workforce Challenges' (postponed).

The CHEC has also nourished its interdisciplinary dimension. **Serra-Sastre** (CHEC director) participated in the establishment of the Centre for Healthcare Innovation Research, set up in 2019 by The Business School and City's School of Health Sciences. The new centre provides an interdisciplinary perspective on the challenges of embedding technological innovations in health and social care services.

Centre for Competition and Regulatory Policy (CCRP) activities

Since REF2014, the CCRP has strengthened its engagement and collaboration with industry practitioners and non-academic stakeholders through its bi-annual roundtables. The CCRP's roundtables are high-profile events that have since June 2005 attracted prominent academics and practitioners working in areas of competition and regulation. Speakers from the 2014–2018 series included Professor Paul Grout, non-executive member of the Gas and Electricity Markets Authority, and Mary Starks, Ofgem's executive director of consumers and markets.

The centre has also strengthened its network of collaborations and deepened its interdisciplinary dimension by, for example, establishing a deeper collaboration with the LSE's Centre for Analysis of Risk and Regulation. As a result, the bi-annual roundtables have had alternate hosting by the two centres since March 2019. The City–LSE collaboration has helped to increase the visibility of both the CCRP (**Dassiou**, CCRP director) and the department; attracted even higher calibre speakers; and widened and deepened the issues discussed at the events – for example, the July 2019 roundtable was titled 'Vulnerability' and the March 2020 Roundtable would have been 'The Economic Regulation Path towards the Zero Carbon Economy' (postponed). In addition, progress has been made to complement the roundtables with workshops relevant to both academics and industry practitioners (e.g. 'Competition and Regulation in Digital Markets', 2020, postponed).

Research affiliations, public engagement and industry collaborations

Faculty have extended their network of collaborations with academic institutions, government agencies and industry practitioners.

Academic links

Galanis has been co-organiser of the Workshop in Economic Theory in collaboration with the universities of Bristol, Kent and Southampton since 2013. Together with Bristol, Kent and Southampton, **Galanis** is currently organising the Virtual Seminars in Economic Theory – one of the few weekly online seminars in economic theory that attracts a global audience (700 registered attendees). **Galanis** has also been a programme committee member of the annual conference Logic and the Foundations of Game and Decision Theory (LOFT) since 2012. **Georganas** has been on the RES programme committee of its annual conference for several years (2014, 2019, 2020, 2021). **Schlegel** co-organised and hosted the first UK matching and market design workshop (2020).

Research affiliations

Defever is a research associate at the LSE's Centre for Economic Performance (CEP). **Faggio** and **Pinchbeck** were CEP research associates (2015–2020). **Faggio** is a visiting fellow at LSE Health. **Jafarey** is an associate fellow of the Institute of Development and Economic Alternatives, Lahore, Pakistan. **Iori** is a research associate of the LSE's Systemic Risk Centre. **Mesnard** is an executive committee member of the European Development Research Network, an external fellow at the UCL's Centre for Research and Analysis of Migration, a research associate at the Institute

for Fiscal Studies (IFS) and a research affiliate at the Centre for Economic Policy Research. **Serra-Sastre** is a research fellow at LSE Health Policy. **Schlegel** is a member of the Centre for Market Design, University of Zurich.

Keynotes and speaking

Faculty have given keynotes and been invited speakers at various events. **Dassiou** was a keynote speaker at the Global Law and Governance Summer School 2014, European Public Law Organization, Sounio; she has also been an invited panellist at various events organised by the National Audit Office (NAO) and the Competition and Markets Authority (CMA). **Faggio** was an invited speaker at the Conference on Economics of Livable Cities in the 21st Century, CERGE-EI, Prague, 2016. **Georganas** was an invited speaker at the 2015 Behavioural Game Theory Workshop, University of East Anglia. **Iori** has a long list of engagements as a keynote or invited speaker, including the 60th World Statistics Congress (ISI2015), Rio de Janeiro; the Warwick Engineering and Physical Sciences Research Council mathematics symposium 'Real World Risks and Extremes: Correlation and Quantification', London, 2016; the Social Simulation Conference 2016, Consiglio Nazionale delle Ricerche, Rome; the 22th annual WEHIA (2017), Università Cattolica del Sacro Cuore, Milan; the 23rd International Conference on Computing in Economics and Finance, Fordham University, New York, 2017; the 66th International Congress of the French Economic Association, Université Côte d'Azur, Nice, 2017; the 3rd International Conference of Econophysics, Volos, 2017; and the 14th Econophysics Colloquium, Palermo, 2018.

Wider public engagement

Banal-Estanol, **Ben-Gad**, **Dassiou**, **Georganas**, **Mesnard**, **Pilbeam** and **Riano** have contributed to *The Conversation* with 16 articles over the past six years. **Georganas** regularly contributes to *Kathimerini*, a leading daily newspaper in Greece.

Faculty have forged collaborations with various national and international organisations. Within the UK, **Banal-Estanol** and **Dassiou** have joined the academic panels of Ofgem and the CMA. **Dassiou** collaborates with the NAO, having contributed to the development of the NAO's Market Analytic Toolkit for assessing public service markets. **Faggio** informed UK Cabinet Office members and McKinsey consultants about potential benefits and costs of public sector relocation initiatives in 2018 and 2020. **Jofre-Bonet** has been appointed head of research and vice president of the OHE. She is an expert adviser for the National Institute for Health and Care Excellence (NICE) Centre for Guidelines and was a member of the NICE Programme Development Group for Type 2 diabetes. She is also a senior research associate at LSE Health Policy, collaborates with the London School of Hygiene and Tropical Medicine, and belongs to the London International Development Centre (SOAS). **Laliotis** and **Serra-Sastre** collaborate with the OHE. **Laliotis** also collaborates with members of the LSE's CEP, the LSE's European Institute and the UK Department of Health and Social Care.

Internationally, **Banal-Estanol** has established links with the Public-Private Sector Research Center, IESE Business School, Spain; the Research Institute in Berlin, Germany; the European Commission's DG Comp; and the World Bank. **Defever**, **Laliotis**, **Nikandrova** and **Riano** collaborate with the World Bank. **Georganas** collaborates with the City of Athens Council. **Jafarey** has links with the Population Council of Pakistan. **Jafarey** and **Mesnard**, in collaboration with Liza Schuster (City Sociology), have built the SANDD network, which established a long-sought-after dialogue between local stakeholders, government and civil society organisations located in Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka. **Jofre-Bonet** has links with the FEDEA Health think tank, Spain; the Centre de Recerca en Economia i Salut, Barcelona, Spain; and the Sierra Leone government. **Laliotis** collaborates with the Council of Economic Advisors, Greece.

Industry collaboration

Faculty have an extensive network of collaborations with industry practitioners both in the UK and internationally. **Banal-Estanol** is vice president and a member of the board of directors of Som Energia, an energy firm based in Spain that produces and sells electricity from renewable sources. **Faggio** collaborates with the BID Foundation. **Galanis** collaborates with Aaro Capital, a London-based fund of funds that specialises in crypto assets. **Georganas** is on the scientific advisory

board of KEFiM, an Athens-based think tank. **Schlegel** is an expert fellow at Swiss Economics, a Zurich-based consultancy firm.

Executive training

Banal-Estanol offers executive training courses on competition and regulation in energy markets to government officials and industry practitioners in both developed (the European Commission's DG Comp) and developing (in collaboration with the World Bank; the EU-AETS consortium, Accra, Ghana; and the African Forum for Utility Regulation, South Africa) countries. **Dassiou** offered bespoke training on competition and regulation policy at the Financial Ombudsman Service in 2015. **Galanis** and **Schlegel** have been offering executive training courses on blockchain and cryptocurrencies through a two-day course held at City since October 2019. The course is offered jointly with lawyers (Vassilis Karantounias and Charles Kerrigan) from the global law firm CMS and Daniele Bianchi from Warwick Business School. **Jofre-Bonet** and **Serra-Sastre** offered bespoke continuing professional development training to health practitioners and policy makers at the Universitat Internacional de Catalunya, Spain, in 2018 and 2019.

Recognition, review panels and editorial services

Ben-Gad served on the US National Academy of Sciences panel 'Economic and Fiscal Consequences of Immigration' from 2013 to 2016; he was also elected to the Fellowship of the Royal Society of Arts in 2017. **Iori** is a member of the London Mathematical Society, a member of the Institute of Physics and a Chartered Physicist and a Steering Group member of the Conference of Heads of University Departments of Economics (CHUDE). **Jafarey** is currently a REF2021 sub-panel member in C:16 Economics and Econometrics.

Iori was a member of the ESRC Grant Assessment Panel C (formerly Panel A) from 2015 to 2019. She is a panel member of the ESRC Research Methods Development Grants (2020) and the ESRC-IRC UK Ireland Networking Grants (2020). **Iori** and **Jofre-Bonet** are members of the UKRI Future Leadership Fellowships Panel College. **Jafarey** and **Jofre-Bonet** were members of the ESRC Peer Review College (2011-2017). **Mesnard** is a member of the IFS scientific committee.

Georganas is a reviewer for research funding programmes, including the State Scholarship Foundation, Greece; Supporting Talent in Research, University of Padua, Italy; and the Netherlands Organisation for Scientific Research.

Iori is associate editor of the *Journal of Economic Dynamics and Control*, associate editor of the *Journal of Financial Management, Markets and Institutions*, co-editor of the *Journal of Economic Interaction and Coordination*, and editorial board member of *the Journal of Statistical Mechanics: Theory and Experiments*. **Jafarey** and **Zauner** are co-editors of the *Bulletin of Economic Research*. **Pilbeam** was co-editor of the *Journal of Economic Asymmetries* from January 2013 to September 2017 and is associate editor of *Economic Modelling*. **Iori** was guest editor of a special issue ('Crises and Complexity') of the *Journal of Economic Dynamics and Control* in 2015.

PhD students associated with the department

Our PhD students actively participate in local and international conferences, such as the RES Symposium of Junior Researchers; conferences held by the Rimini Centre for Economic Analysis; the Warsaw Money-Macro-Finance Conference; the International Conference on Applied Theory, Macro, and Empirical Finance; and a PhD workshop titled 'Volatility Modelling' at the National Bank of Belgium. Velias was awarded a faculty's pump-priming grant (jointly with Schlegel) and was invited to visit the Universitat Pompeu Fabra (Spain) for a term.