

Institution: University of St Andrews



Unit of Assessment: 18 Economics and Econometrics

a. Overview

The School of Economics and Finance has undergone major restructuring since RAE2008, with 15 new members of staff being included in REF2014. To complement the well-established group in Macroeconomics, we have invested heavily in a new group in Microeconomics with a focus on Bounded Rationality and Behavioural Economics, supported by a new Experimental Economics laboratory. The Macro group to a large extent operates through the activities of a formal centre, the Centre for Macroeconomic Analysis (CDMA), which was established in 2003. The Micro group is being built around three key senior appointments made in the current REF period (Mariotti, Manzini and Costa-Gomes). As colleagues retire, and as we add to our current group of microeconomists, the Micro group will evolve into its own centre. Over the last three or four years, we have also enacted a strategy of populating the School with young staff appointed from the international job market – there are 12 newly appointed lecturers contributing to the current exercise – and in so doing, we have created a research culture and vibrancy that is becoming the *sine qua non* of the School. The environment has been supported by four major conferences and workshops we have run across different areas of Economics and Finance, by other smaller-scale workshops and masterclasses, and by a number of distinguished visitors to the School.

In the post-REF period, we will continue our policy of strengthening our “core” in Macro and Micro through appointments that are both synergetic and broadening, and over time we will also broaden our research base in Econometrics and Finance. All of our overarching strategic aims are co-ordinated and enacted by a formal management team – the “School Executive” – that was explicitly based on a group of “young” professors all under fifty when constituted four years ago: Paola Manzini, Marco Mariotti, Roderick McCrorie (Head of School), Kaushik Mitra, Charles Nolan (who left during the census period) and Alan Sutherland. Miguel Costa-Gomes has since joined the group, which continues to benefit from the experience of George Evans, a 0.5FTE appointment and leader in his research field.

While the senior management team determines high-level aims, the School’s Research Committee articulates the standards required of internationally excellent research; it oversees the development of staff, including the mentoring of junior staff; and it actively encourages and supports staff in their approach to external funding.

b. Research strategy

Our key strategic aims are:

1. Strengthening our position as an international reference point in the discipline;
2. Creating a stimulating environment in which young appointees can thrive;
3. Establishing a thriving graduate school through raising the quality of our postgraduate teaching and research training, and the number of PGR students;
4. Improving our record of external research funding.

In this regard, 3 and 4 explicitly relate to points for development that were identified by the RAE2008 panel. These have been addressed in the current period.

As a school of around 25-30FTE, we require to specialize and concentrate activity in key areas. Since RAE2008, we have designed and enacted a major restructuring of the School that builds research groups around key individuals and in areas of the discipline where we felt we could feasibly create clusters of world-leading and internationally excellent research. The strategy was initiated by two key senior Micro appointments made early in the census period.

In Macro, our core is being built around Evans and Mitra (Learning and Expectations), Sutherland (International Macro) and the activities of the Centre for Dynamic Macroeconomic Analysis (CDMA). In Micro, facing retirements of senior staff post-RAE2008, we identified Mariotti and

Manzini and their subject area (Bounded Rationality and Behavioural Economics) as the basis on which to build for the future. They were appointed in 2009. The subsequent appointment of Costa-Gomes (Behavioural Economics and Experimental Economics) and the laboratory he has since set up is synergetic with their appointment, given that their research straddles both theoretical and experimental sides of Bounded Rationality. During the census period, all six staff have received significant external funding to support their underlying research areas and themes, and it is around this leading group that the School is advancing a rich research agenda that can foster and develop the research programmes of more junior colleagues and strengthen its position as an international reference point in the discipline.

Creating a critical mass of researchers in the areas identified above connects to point 2 under which we have pursued an aggressive junior appointments strategy that has freshened up and renewed the School. Some have been appointed explicitly to build synergies and research groupings around senior staff; others have given us interest and coverage in other important areas of the discipline. Ozbek was hired for his strength on the mathematical/ theoretical side of the Bounded Rationality area, Gerasimou because he straddles both theory and the experimental. Following the appointment of Costa-Gomes, Gerasimou helped set up and now co-directs the Experimental Economics Laboratory. On the other hand, Nichifor, who works in Mechanism Design, was a broadening Micro appointment, as was Cuhadaroglu who works on Inequality, and Savorelli who works in Health Economics. Diasakos's work takes on more of a Financial Economics perspective, but he retains a strong interest in Bounded Rationality. The Micro group comprising the three senior and six junior staff described above, alongside the associated infrastructure investment, represents the area which has expanded most in the School since RAE2008.

Important appointments in other key areas have also been made. In Macro, both Di Pace and Zhang have primary strength in core macroeconomics, and secondary interests in Labour Economics. Sun's work is underpinned by core training in recursive dynamic programming (under Storesletten at Oslo). Koutmeridis, on the other hand, provides a more applied, micro-based perspective, and also has some interest in empirical work. In Econometrics, Lee works in nonparametric estimation and testing, and partial identification; and Sohkanen has a primary interest in econometric model specification underpinned by rigorous statistical inference.

Our future research strategy is based around the research areas and themes of current senior staff and the continuing development of junior staff. We will establish a Centre for the Theoretical and Empirical Study of Bounded Rationality (in an area that is an ESRC thematic priority) based on our emerging Micro group. Three senior vacancies (two chairs and one readership) have been held over to support its development and further development in Micro and Macro, and will be followed by broadening appointments in Econometrics and Finance. The research themes currently being developed by members of the School include: monetary and macro-prudential policies which prevent financial fragility and contagion at international level; analysis of price level and nominal GDP targeting as monetary policies, as opposed to inflation targeting; the effectiveness of fiscal policy in New Keynesian models and/or models with distortionary taxes and debt financing; how bounded rationality can lead to asset price bubbles and crashes in models of monetary policy; the formal modelling of boundedly rational choice procedures; elicitation of expectations and beliefs in an experimental context. These examples illustrate the relevance of our work to the current research frontier and the emphasis of the School on both academic and policy-relevant research.

Establishing a graduate programme with a strong PGR cohort, which can be benchmarked internationally, remains a key part of our strategy. In respect of point 3 above, we have taken the major decision to set up our own dedicated MSc Economics programme to run alongside the confederate MSc programme that has been run in Scotland for over two decades. Explicitly designed as a PhD-feeder course, it represents the first, completed stage of a strategy to attract and train students in a coherent PhD programme. We are now establishing a one-year MRes programme such that our training provision over two years will mimic standard doctoral provision in the leading US institutions, which we feel is the gold standard.

Our strategy also involves improving our record of external funding. Under point 4, we have therefore made applications for external funds that we have seen to be credible rather than speculative, and five of our research leaders and senior management team, Costa-Gomes,

Environment template (REF5)

Manzini, Mariotti, Mitra and Sutherland, together with David Ulph, have achieved major grant awards during the census period. We will continue with this strategy, integrating our recent appointees as their track records develop.

Finally, we have strengthened our position as a point of reference by becoming more of a centre of research activity. As outlined in section e) below, we have run four major international conferences (one in each of Macro, Micro, Econometrics and Finance), a number of workshops and masterclasses, and we have hosted a number of visitors, collaborative and esteemed.

c. People, including:**i. Staffing strategy and staff development**

The School has undergone major restructuring since RAE2008, with fifteen members of the newly appointed staff being included in the REF. These appointments comprise around half of the School's 28.5FTE staff in the steady state (measured on a September 2014 base), with only 5.5FTE of staff being common to our submissions to RAE2008 and REF2014.

After RAE2008, we faced the impending retirements of three senior microeconomists (John Beath, Felix FitzRoy and Gavin Reid) who had served the School well for twenty or more years. The School/University identified Marco Mariotti and Paola Manzini and their subject area (Bounded Rationality and Behavioural Economics) as the base upon which to articulate a new strategy in Microeconomics, and appointed them in 2009. With leading staff in the core areas of Macro and Micro then in place, these appointments provided the catalyst and impetus for the School to design and implement its current staffing strategy, and begin aggressively appointing junior staff from the international job market. This in turn led to the synergetic appointment of Miguel Costa-Gomes in 2013, and the development of the Experimental Economics laboratory.

Our current strategy is strongly intertemporal. In line with our principal aim to become a reference point in the discipline, we have pursued a strategy where appointments (and staffing changes generally) have been made both in the context of REF2014 and future such exercises. New appointments are made on a permanent basis only if they satisfy our long-term criteria. On this basis, with strong university support, we have populated the School with twelve new lecturers, all of whom we see as promising, energetic, enthusiastic and committed individuals, with proper doctoral training and having typically worked with an established supervisor. They are researchers who are prepared to pursue "deep" projects even if (and especially if) such work embodies some risk. In the Research Strategy section, we explained how this group was put together on the basis of research area; we now list them in terms of academic origin as evidence of the position we now hold in the international job market. In Micro, we have hired on a permanent basis (in reverse chronological order): Ozbek (PhD Cornell), Cuhadaroglu (PhD Autonoma de Barcelona), Gerasimou (PhD Cambridge) and Nichifor (PhD Maastricht). Savorelli (PhD Bologna) and Diasakos (PhD UC Berkeley) currently hold fixed-term positions. In Macro, we appointed Di Pace from an Assistant Professor position at Warwick, Koutmeridis (PhD Warwick), Sun (PhD Oslo) and Zhang (PhD Vienna). In Econometrics, we appointed Lee (PhD UCL) and Sohkanen (PhD Oxford). While our strategy early in the census period was to an extent dictated by a university policy to make permanency decisions after only fifteen months, the new policy, offering four-year tenure-track type appointments, is better suited to our needs. Given the vibrancy that the junior appointees have brought to the School, we shall continue this policy and shall use such appointments and the two professorial and one readership vacancies we have held over, to move the School to its planned next level.

Staff development is primarily focused on the newly appointed junior staff. Our commitment to them is total: each is given a subject-specific senior mentor with whom targets are assigned and reviewed; most have been given a personal research account over and above standard entitlements; they are funded to strengthen links with international scholars by sponsoring one or two visits to St Andrews of current/prospective co-authors; and they are given financial support to visit an external university each year, often abroad. Suitably qualified staff are given the opportunity to teach a postgraduate course (which we find helps attract them). All are given the crucial elements of time and space. Exactly the same privileges are made available to pre-existing lectureship staff, although the Research Committee sometimes takes a more pro-active approach by diverting individuals' discretionary funds and sending them on prescribed external courses and

masterclasses. The development of all staff (including more senior staff) is overseen by the Head of School and Director of Research through the Research Committee and is designed on the basis of allocated discretionary spend being a function of performance. All staff benefit from presenting work at least once a year at our internal one-hour “Brown Bag” lunchtime seminar series on Wednesdays, and through attending and helping organize our Thursday seminar series. Manzini and Mariotti coordinate a group notionally called the “Micro Reading Group”. Run in conjunction with PhD students, this is described in the next section.

The School supports the development of staff in other ways, notably through the University’s Centre for Academic, Professional and Organisational Development (CAPOD). This centre offers an award-winning generic skills training programme ([GRADskills](#)) which aims to develop and support the acquisition of generic transferable skills with a view to increasing research effectiveness.

Our hiring strategy has also had the effect of greatly improving the School’s demographic profile. Many current professors are still in their forties and lecturers in their twenties and thirties, potentially offering stability to our environment over the next ten or more years. The appointments of Manzini, Lee and Cuhadaroglu, and the promotion of Senay to SL in 2012, have improved the gender balance in the School at all levels. The University meets all the key principles of the *Concordat* regarding the recruitment, selection and retention of researchers; the recognition of the value of researchers to the institution; the development of generic and flexible skills; the promotion of personal and career development; the promotion of diversity and equality practices; and the regular review of progress. The success of St Andrews in this area has recently been acknowledged by an Athena Swan Bronze Award and a European Commission HR Excellence in Research Award.

ii. Research students

We have fundamentally addressed the causes of our inability to recruit quality PhD students in reasonable numbers and of our poor PhD completion times. Our PhD degree awards, though at this point still small, have more than doubled in this census period compared with last and our strategy is beginning to bear fruit. In the aftermath of RAE2008, the School and University came to the difficult conclusion that the single, confederate MSc Economics run in Scotland for over two decades – that has only ever run out of either Edinburgh (as currently) or Glasgow – had deficiencies that were hindering our development. There were quality issues stemming from the accommodation of weaker departments; there was a tension between the need to raise revenues and to provide a PhD-feeder course; and there was a lack of students prepared to leave the host city. Thus at some cost to our reputation for collegiality, we decided to set up our own dedicated MSc Economics programme, as the first element of a strategy to build a PhD programme of value.

The rationale for the new programme, in terms of contributing to on-going strategy, is twofold:

Firstly, it seeks to increase the quality of our PhD programme by providing better research training and by creating interaction between the supervisor and student that can be properly aligned to the supervisor’s own research level and contribution. Its current [curriculum](#) is benchmarked against the first-year provision offered by leading UK and European departments in a two-year doctoral training programme and is based around core courses (Macroeconomics, Microeconomics, Mathematical Economics and Econometric Methods and Applications) and optional modules specifically designed to relate to the lecturer’s research and supervisory interests, e.g. Game Theory (Nichifor last year, Ozbek this), Expectations and Learning in Macroeconomics (Mitra) and Monetary Policy (Hughes Hallett). Experiments in Economics was added this year upon the appointment of Costa-Gomes. A one-year MRes programme will shortly be added on top, bringing our training provision over two years in line with the type of doctorate offered at the leading US and European schools, which we regard as the benchmark. Our MSc/MRes research training pathway is completely aligned to our strategy of hiring only the best-trained junior staff from the international job market. Gerasimou, Nichifor, Ozbek and Sun are already contributing to its successful delivery. For example, the MSc course Mathematical Economics, which in part teaches recursive dynamic programming using the book by Stokey and Lucas *Recursive Methods in Economic Dynamics*, is taught by Sun who was a PhD student of Kjetil Storesletten’s in the University of Oslo.

Secondly, being designed explicitly as a PhD-feeder course, our MSc seeks to fulfil School and University aims to increase PhD student numbers. To support a strategic priority to increase the size and quality of its research postgraduate community, the University last year created a formal Research Graduate School, in the name of the (historical) College of St Leonard's. This initiative is part of a strategic priority in St Andrews to increase the size of the PGR community to 15% of the student cohort, and on the quality side is backed by significant new funding in the form of 600th Anniversary scholarships. Our MSc programme began in 2012-13 with 11 students (with one continuing to our PhD this year, and two going elsewhere) and, given its elite nature, we intend taking only around 15-20 students per annum in the steady state. We are, however, considering offering our MSc degree on a conversion basis over two years in a bid to attract more high-quality potential PhD students from wider sources.

We have improved the quality of our recruited PhD students during the census period in a drive to improve completion times. Of the twelve students who started since 2009, three are funded by ESRC Scholarships awarded since 2011 in national competition with other universities through DTC Scotland (through which only five are available each year); two are funded by Scottish Institute for Research in Economics (SIRE) scholarships; and one by a very competitive AXA Scholarship, of which only 24 such doctoral grants were available worldwide. Two of our current students are internally fully-funded by University 600th Anniversary PhD Scholarships.

The School has thoroughly overhauled and improved the research support it provides to PhD students. In the initial years of the census period, in the absence of suitable research training within Scotland, the School organised a regular, open access PhD Workshop Series, which used a mix of local and external lecturers to deliver one- or two-day workshops. These brought our students and other PhD students in Scotland into contact with a number of high profile researchers in a wide range of areas. The 2010-11 programme included among others Karim Abadir (Imperial College London) "New Time Series Methods for Macroeconomic Dynamics"; Russell Davidson (McGill) "The Bootstrap in Econometrics"; Cars Hommes (University of Amsterdam) "Topics in Nonlinear Economic Dynamics"; Seppo Honkapohja (Bank of Finland) "Topics in Macroeconomics: Learning Dynamics"; Nobel Laureate Eric Maskin (Institute for Advanced Study, Princeton) "Market Design Mechanisms"; and Bernt Øksendal (Oslo) "Malliavin Calculus and Applications to Finance". SIRE has recently taken a more active role in providing such masterclasses on a Scotland-wide basis and, accordingly, we have directed our focus towards running larger workshops and conferences more dedicated to the research themes of our own staff and students (see e) below). PhD students can also hone their basic research methodology through our new MSc Economics programme (e.g. in topics such as recursive dynamic programming; real analysis; asymptotic statistical theory; or solving RE models); and through reading groups, notably the Micro Reading Group run by Manzini and Mariotti. Here, junior staff and PhD students are kept abreast of developing literature; but they also have a forum to test out ideas, or to bring along research problems (usually technical problems) that can be discussed in front of the whole group and hopefully worked through later. Manzini and Mariotti particularly encourage a group ethos that is based around an intense exchange of ideas and "blue skies" thinking.

In cooperation with the University's CAPOD, we have created a dedicated course in presentation skills for PhD students in economics, to support our annual "PhD conference" where research students present their yearly research progress in front of all staff.

With our MSc now in place, we have begun to address the issue of PhD numbers in other ways, with a near-term two-year target to attract ten more students. Three more University PhD scholarships are already available to offer to high-quality students. Memoranda of Understanding have been set up with ITAM (Mexico), relating both to staff exchanges and a pathway from their MSc in Economic Theory – which we see as the best in Latin America – to a PhD here; and with the University of Trento (Italy), with students from their established Experimental Economics laboratory visiting ours as part of their PhD. The ITAM MoU is important because the University is one of around 24 UK universities accredited by CONACYT (Mexico's National Council on Science and Technology), which offers full study-abroad funding to academically excellent Mexican students.

d. Income, infrastructure and facilities

Research income: In view of the recent ESRC changes to restrict blanket applications, the School has made a small number of targeted applications for large grants, while supporting a culture of universal small-grant application. This strategy has borne fruit: overall, the School has almost doubled the value of its external grant awards as compared with RAE2008; it has diversified its external funding sources; and six of the School's senior researchers, Costa-Gomes, Manzini, Mariotti, Mitra, Sutherland and Ulph, have had their research funded by external bodies through major awards. While over the whole RAE2008 period funds awarded to the School amounted to £866k (of which £95k was funded by the ESRC) up to the summer of 2013 the School had already attracted £1.14M in large grants worth more than £100k each. Manzini and Mariotti have raised over £0.5M in ESRC and Leverhulme Trust awards in the area of Bounded Rationality and Choice. Other awards in Micro were made to Ulph (over £200k, from the ESRC and HM Customs and Excise) and Costa-Gomes (around £45k, from the European Research Council). In Macro, Sutherland's ESRC grant for a project on Financial Globalisation has a total FEC award value of £584k, with £348k coming to St Andrews. He is PI, with co-investigators being Gianluca Benigno (LSE) and Michael Devereux (UBC). Mitra's ESRC grant on Macro Policy Changes and Adaptive Learning has a FEC award value of £259k.

Our small-grants policy, overseen by the Research Committee, offers incentives in the form of matching funds and, occasionally, top-up funds. This has translated into ca. £370k of additional funding and brings the total awards during the assessment period to just over £1.5M, of which £1.16M was ESRC funded. These funds include a very competitive AXA Doctoral Scholarship (which was one of only 24 Doctoral Grants available worldwide).

Our future strategy is to seek external funding in support of our new Centre for the Theoretical and Empirical Study of Bounded Rationality, and to continue to build around research-leading senior staff. Recently hired junior staff will be expected to make an increasing contribution, in conjunction with senior staff or independently, as track records develop.

Research infrastructure and facilities: The major infrastructure investment during the REF period has been the creation of an Experimental Economics laboratory, which became operational in Spring 2013. This now supports the experimental research of four members of staff (Costa-Gomes, Manzini, Mariotti and Gerasimou) and, through establishing research links with other such laboratories (as with Trento), we see this investment as a driver of growth for the School. The laboratory now supports new UGT and PGT modules in Experimental Economics, and we have recruited a PhD student in the area from September this year, the first (we intend) of many.

In terms of university-wide infrastructure, £7M was spent on the refurbishment of the main library in 2011-12, supported by an additional £3M to provide a store building for stock to be removed, creating 450 extra study spaces. The purchase and renovation of the church Martyrs Kirk in 2012-13 represented a £2M investment that created a reading room with 40 seats dedicated to PGR students and academic staff. There has also been enhanced expenditure on research materials involving a £700k per annum sum from 2010-11, to be shared among Schools to improve baseline materials, including books, e-journals and subscription databases. This allows us to identify and make good deficiencies in the library's Economics collection and, in particular, the School has been awarded ca. £50k to purchase the CRSP US Stock, Thomson ONE and Bloomberg databases, which are now available university-wide.

The School has also benefited from the restructuring of the University's Conference and Group Services, which has led to specialist teams being on hand to help with planning and organizing residential conferences and workshops. Celebrating its 600th Anniversary this year, the University, as the third oldest in the English speaking world, is a magnet for visitors. In this respect, the stunning building which hosts the School, with its dramatic sea views and neighbouring ruined castle, has proved to be a great favourite among visiting academics.

Environment template (REF5)

e. Collaboration and contribution to the discipline or research base

Almost all of our staff collaborate with others external to the School. A selected list of co-authors of eligible papers by staff submitted to the current exercise include:

Rabah Amir (University of Iowa); Jess Benhabib (NYU); William Branch (UC Irvine); James Bullard (President & CEO, Federal Reserve Bank of St Louis); John B. Carlson (Vice President, Federal Reserve Bank of Cleveland); Vincent Crawford (Oxford and UC San Diego); Michael Devereux (UBC); Roger Guesnerie (Paris School of Economics); John Hatfield (Stanford); Seppo Honkapohja (Bank of Finland); Bettina Klaus (Lausanne); Scott Kominers (Harvard); Francesco Manaresi (Bank of Italy); Tapan Mitra (Cornell); Bruce McGough (Oregon); Michael Ostrovsky (Stanford); Lucio Picci (Bologna); Thomas Sargent (NYU); Alisdair Ulph (Manchester); Alexander Westkamp (Bonn); and Noah Williams (Wisconsin-Madison). The key collaborations that reflect sustained contribution to the discipline involve Devereux and Sutherland (International Macro) and Honkapohja with both Evans and Mitra (Expectations and Learning).

We have contributed to the discipline and research base through a) membership of editorial boards; b) external conference organization; c) membership of programme committees of external conferences; and d) keynote addresses and invited lectures. For example:

a) American Economic Review (Costa-Gomes); Experimental Economics (Costa-Gomes); Games & Economic Behaviour (Costa-Gomes); Journal of Economic Dynamics and Control (Evans); Macroeconomic Dynamics (Evans, Hughes Hallett, Mitra, Sutherland); Special issue of the Journal of Industrial Economics, on Recent Advances in Competition Policy (Ulph, 2009).

b) International Macro-Finance conference hosted by the IMF, 2008 (Sutherland, co-organizer); "International Capital Flows and Spillovers in a Post-Crisis World" at Bank of England (and co-sponsored by St Andrews), 2012 (Sutherland, co-org.); SITE workshop on "When are Diverse Beliefs Central?" Stanford University, 2009 (Evans, co-org.); "Expectations, Asset Prices and Financial Crises" Erasmus University, Rotterdam, 2010 (Evans, co-org.); Competition and Regulation Summer School in Economics (CRESSE) (Ulph, co-organizer since 2006); CRESSE Workshops on Optimal Enforcement and Decision Procedures for Competition Policy (2010-12, Ulph, part-sponsored by ESRC grant).

c) European Economic Association Conference (Sutherland, 2011); RES Annual Conferences (Mitra, 2012; Manzini and Mitra, 2013); Risk, Uncertainty and Decision conference (Diasakos, and Manzini and Mariotti, 2012 and 2013); European Association of Environmental and Resource Economists (Ulph, 2011-13 inclusive); Society for the Advancement of Economic Theory (Manzini and Mariotti, 2011 and 2013, session organizers).

d) Evans: 40th Money, Macro and Finance Research Group conference, keynote address, "Expectations, Learning and Monetary Policy" 2008; Central Bank of Chile and Center for Mathematical Modeling, University of Chile, 'Adaptive Learning' for workshop on "Theoretical questions around the economic crisis" 2011; "Adaptive Learning in Macroeconomics: some methodological issues" FRB St. Louis, 2012. Ulph: Atlantic Economic Society, Istanbul; European Stability Mechanism; Government of Quebec; European Commission; Central Bank of Croatia; Asian Development Bank Institute; ATAX Tax Administration Conference, Sydney.

Hughes Hallett has been a member of Scotland's Council of Economic Advisers since 2007. David Ulph has been Director of the Scottish Institute for Research in Economics (SIRE), an initiative set up by the Scottish Funding Council to promote economics research within Scotland, since 2010. Three of our staff, Hughes Hallett, Sutherland and Ulph, are elected fellows of our interdisciplinary national academy, the Royal Society of Edinburgh.

We brought key researchers and activity to St Andrews based on the principle of hosting leading academic research that is policy-relevant. Four major conferences and workshops were focal:

2010 (Econometrics). SIRE/St Andrews Conference in Honour of Sir David F. Hendry. Keynotes: Sir David Hendry (Oxford); Robert Engle (NYU Stern, 2003 Nobel Laureate); Søren Johansen and Katarina Juselius (both Copenhagen); and the late Halbert White (UC San Diego).

Environment template (REF5)

2011 (Macro) CDMA Conference on “Expectations in Dynamic Macroeconomic Models”. Keynotes: James Bullard (President and CEO, FRB St Louis); Roger Guesnerie (Paris School of Economics); Albert Marcet (now IAE, CSIC & Barcelona GCE); and Michael Woodford (Columbia University). Bennett McCallum (Carnegie Mellon) gave a contributed paper.

2013 (Micro) SIRE/St Andrews Workshop on Bounded Rationality and Choice (BRIC). Papers, e.g., by Jose Apesteguia (UPF); Andrew Caplin (NYU); David Dillenberger (UPenn); Rohan Dutta (McGill); Andrew Ellis (LSE); Yoram Halevy (UBC); Christian List (LSE); Efe Ok (NYU).

2013 (Finance) SIRE/St Andrews/Glasgow Conference on “Finance and Commodities”. Keynotes: Helyette Geman (Birkbeck & John Hopkins); Alexander Eydeland (Morgan Stanley New York); Andrew Lyasoff (Boston University); Ronnie Sircar (Princeton); Eduardo Schwartz (UCLA, 1996 President of the American Finance Association); Marc Yor (UPMC-Paris VI).

Our CDMA conference initiated similar conferences at the FRBs St Louis and San Francisco (2012 & 2013) and one is planned by the Bank of Finland in 2014. The BRIC Workshop did the same, with BRIC 2014 & 2015 scheduled to take place at UPF (Barcelona) and NYU. Two of our junior staff, Forgues-Puccio and Trew, organized a SIRE/CDMA Workshop on Advances in Economic Growth in 2011. We also hosted a lecture in the University’s Nobel Lecture Series, by 2007 Laureate Eric Maskin (Princeton); and in the University’s 600th Anniversary Series, by John Y. Campbell (Harvard University and 2005 President of the AFA). Engle’s paper in 2010 was the inaugural SIRE Econometrics Lecture; the second, by Peter M. Robinson (LSE), was given this year in St Andrews. The School has run a number of small-scale, Scotland-wide training events, often supported by SIRE, e.g. a BRIC workshop in 2011 and several econometrics workshops. The CDMA has also run a number of such workshops, e.g. one on DSGE models in May 2013.