Trinity
Generations

Fees, Charges and Student Support

Trinity in Camberwell

A Bridge between Past and Future

Trinity Law Association

A Marriage Made in Chapel

Exploring International Financial Linkages
Anthony Mott (1956) best put the feelings of most of you when responding to The Fountain’s first appearance. ‘Trinity’, he wrote, ‘treated me with a sort of casual benevolence when I was up—not unlike an absent-minded monarch of the Enlightenment.’ That was long before the University’s 800th Anniversary Campaign. Now, ‘having scorned the idea of buttering-up the rank-and-file alumni on the American pattern, you find yourselves—rather like a coy Victorian maiden—being forced to do so... and in ways that must make you grit your teeth.’ Mott thought that Trinity’s members would nonetheless respond overwhelmingly to any appeal. Many of you have expressed the same optimism. Others need feel no alarm on that score yet. Mott’s maiden is still considering how to adapt with decorum to modern times.

It is early days, after all. Only in Michaelmas 2004 did College Council resolve to institute an Alumni Relations Committee. In Lent 2005, after the Fellowship gave its blessing, Corinne Lloyd took up office as our Alumni Relations Officer. This Editorial is a first annual report.

Trinity has been learning. All of us are trustees of past and future, bridges between them, as Philip Allott puts it in this second Fountain. Trustees take advice. Thus far two meetings in the Master’s Lodge, first for Trinity lawyers and then for those who are ‘something in the city’, have advised on how best our College should change in order to remain the same, which is to say the best.

Some of you have started new Trinity associations. Our ‘future events’ column tells you of their plans; we hope other associations, new and old, will tell us more. On the College website, www.trin.cam.ac.uk, you can also click on the Alumni button, to find a page that will in due course become more interactive. But the web is no substitute for gatherings. Singers from the choir association, for instance, entertained seven hundred members and their guests at the buffet lunch in Neville’s on a sunny Sunday in September. The law association is discussing with junior members a possible mentoring role. College members have generously hosted dinners in this country and in the USA.

At such meetings we have been overwhelmed by a sense that we have, in Trinity’s fourteen thousand members—rightly, you dislike being called alumni—a large and friendly beast only too happy to be stirred into action. This makes Corinne and the Committee nervous! How can we possibly meet your expectations? We will do our best but still have much to learn. What we have learned, above all, is to listen to you, especially as represented in the embryo Alumni Advisory Board—it’s difficult to avoid that term in formal titles—that first met, under the chairmanship of Mark Soundy (1983) (Mark.Soundy@weil.com), in January this year. We look forward to learning a lot more.

Professor John Lonsdale (1958), Fellow, Secretary to the Alumni Relations Committee

EDITORIAL BOARD

Professor John Lonsdale (1958) Editor-in-Chief & Secretary, Alumni Relations Committee
Mr John Easterling (1952) Editor, Annual Record
Dr Richard Serjeantsen (1993) Secretary of the Website Committee, www.trin.cam.ac.uk
Mrs Corinne Lloyd, Editor & Alumni Relations Officer, e-mail: cdll28@cam.ac.uk
Trinity regenerates itself each year by recruiting new scholarly talent from all over the world to the ranks of both senior and junior members. In recent years, accordingly, we have done particularly well in the Tripos league tables. We remain determined to admit only the best, from the schools and universities we know well, and from others that are entirely new to us. In each of the past three years the number of candidates for admission, now around eight hundred, has exceeded all records. These candidates are normally divided about 50:50 between the arts and sciences, and around forty per cent of them are women. While we recruit as widely as possible the College’s ability to regenerate excellence, none will be surprised to know, is also reinforced by generations of Trinity men and women.

Melanie Bayley (1978), whose uncle James Kee (1939) is named among the many Trinity men on the 1939–45 War Memorial in the Antechapel, read Biology and is, to the Editor’s knowledge, the first Trinity Mother—of Jack Bayley (2005) who is reading Theology.

James Bradley (1965) read Mechanical Sciences, and encouraged his daughter Joanna Bradley (2004) to follow in his footsteps. She is reading Natural Sciences at Trinity—despite an initial desire to apply to Caius, to avoid any unjust suspicion that she had benefited from the old boy net.

J R Anthony Pearson FRS (1950) read Mechanical Sciences and became a Professor of Chemical Engineering at Imperial College. His son George A Pearson (1975) read Natural Sciences. Following his father and grandfather, Charles A Pearson (2005) has come up to read Modern and Medieval Languages.
FEES, CHARGES AND
BY JOHN RALLISON

WHY DOES CAMBRIDGE OFFER BURSARIES TO ITS STUDENTS?

The pursuit of excellence, in research, in teaching, and in the quality of students admitted, is central to the success of Cambridge University. For the recruitment of undergraduates, excellence goes hand in hand with access: the best students from all backgrounds must be encouraged to apply and, if successful, to feel that they can afford to study in Cambridge without incurring excessive debt. While they are here, we want students to be able to take full advantage of all that student life has to offer without, for example, being forced to take term-time jobs to make ends meet. There is too much to fit in, both work and play, during the concentrated term-time period.

ORIGINS OF THE CAMBRIDGE BURSARY SCHEME

The post-War period has been exceptional over the 800-year history of the University in that the State has provided financial help to UK students in the form of grants for maintenance and tuition. In earlier periods Colleges offered full- or part-cost support by means of scholarships and exhibitions and in other ways. Trinity’s greatest scientist, Isaac Newton, was a sizar when he arrived in 1661. Since 1990, the level of public support for individual students has progressively been reduced, first by the replacement of maintenance grants by loans, and later by the charging of tuition fees, which are set to rise substantially (in the form of so-called top-up fees) for students who arrive in October 2006. This income stream is vital to the financial health of both the Colleges and the University and, even with fees set at £3,000, the University estimates that teaching costs will not be covered. Maintaining the supervision system, of which we are properly proud, is an expensive business.

When student loans were first introduced in 1990, Trinity took the lead in providing bursaries for its own students. The Newton Trust, founded by Trinity two years earlier, rapidly extended that scheme to students of other Colleges. Since then the scheme has expanded substantially, with every College contributing towards bursaries for its own students, the wealthier Colleges contributing a larger proportion than others. In addition, several corporate sponsors have been generous contributors. Bursaries of up to £1,000 per annum in each year of undergraduate study are presently awarded.

FEES AND BURSARIES IN THE FUTURE

In October 2006 the next generation of Freshers will encounter a still less-favourable financial climate: although Higher Education grants of up to £2,700 have been reintroduced for those with very low family incomes, every UK student will be expected to meet a tuition fee of £3,000 per annum. In response to this changed circumstance, and because the issues of excellence and access are considered so vital, Cambridge has agreed that a further substantial expansion of the Bursary Scheme is needed, with bursaries of up to £3,000 per annum for each year of undergraduate study irrespective of College and irrespective of subject studied. We estimate that this will be sufficient, along with the Higher Education grant, to meet the full term-time maintenance cost of a typical student. For mature students who have to be in Cambridge throughout the year, a higher tier of bursaries worth up to £5,000 per annum will be available.

Although payment of tuition fees has become a party political issue in recent years, successive governments have, in fact, adopted the same policy. It is hard to believe, given the consistent trend of that policy during the past 15 years, that the days of ‘free tuition’ will return.
Indeed fee levels are surely set to increase. From 2006, universities that charge top-up fees (virtually every university in England in practice) will in future be required to pay bursaries to their poorest students. The Cambridge Bursary Scheme goes well beyond the legal requirement by providing bursaries that are ten times larger than the required minimum, and in providing tapered support for those students who fall outside the minimum income category; the upper limit for support corresponds to a parental income of £37,500. On the basis of government estimates, one-third of students nationally would qualify for a maximum Cambridge Bursary and one-half of students nationally would qualify for a bursary of some kind.

From 2006, there will for the first time be a tripartite arrangement in which bursary costs are met in part by the Colleges, in part by the Newton Trust and in part by the University, with a guarantee of support for every student who qualifies for a Higher Education grant. The University and the Colleges hope that much, if not all, of the additional expense in providing this guarantee will be offset by contributions made to the 800th Anniversary Campaign.

Trinity plans to make fundraising for student support a central plank of its appeal to alumni as part of the 800th Anniversary Campaign. If the student experience enjoyed by those of us who benefited from public support is to be guaranteed for new generations, then a generously funded Cambridge Bursary Scheme is needed. We shall be looking to alumni for their help.

Many more details about the Cambridge Bursary Scheme can be found on the Newton Trust website at www.newtontrust.cam.ac.uk

Dr John Rallison (1970), Fellow, is Reader in Fluid Dynamics and Director of the Isaac Newton Trust.
I finished reading History at Trinity in June 1938 and returned to America. In 1940, well before Pearl Harbor, the White House hired me to work for Nelson Rockefeller, the new Coordinator of Inter-American Affairs. I was given ‘Top Secret: Eyes Only’ clearance, in order to conduct somewhat dangerous intelligence work, in cooperation with British intelligence, via the FBI’s Chief of Enemy Subversion.

This was the start of a fifteen-year career in intelligence—in submarines, in the CIA and, finally, as a ‘well-informed businessman’. I got to know the personality of the three Presidents under whom I served, Franklin Roosevelt, Harry Truman and Dwight Eisenhower, by the different kinds of hugger-mugger they used for communication between us. My career might have been much briefer had I not been rescued from a Brisbane hospital by a fellow Trinity man, Lionel Holmes Hopkinson, who had rejoined the Royal Navy after planting rubber in Malaya.

The job had its comic side. At the start of the American occupation of Japan in 1945 I found myself as the sole US representative in a provincial city. I sent for the mayor. He turned out to be a retired general and former member of the Imperial Household. We exchanged pleasantries on the station platform. I said I had been at Cambridge. ‘Ah so,’ he replied, ‘then you must remember the visit of the Emperor’s brother to Oxford before the war. I was honoured to be a member of his suite.’

‘Indeed I do’, I replied. ‘A pity His Highness visited the wrong University.’ The general smiled. And so began a fruitful relationship.

Looking back, at the age of 91, I am amazed at the impact of my years at Trinity. They gave me not only a profession but also a knowledge of how to write, which I turned to good effect after leaving Intelligence work in order to bring up a family.

Several works on current affairs have given me a mention. Two Communist publications, one East German and the other from Argentina, called me a malevolent capitalist agent, seeking to undo Soviet good works. Other authors thought me, variously, a big businessman, a political historian, or a drugs dealer.

All this means only that I must have been a pretty good actor. Indeed, the FBI’s Chief of Enemy Subversion told me that my acting ability was in part responsible for my recruitment. My supervisor, Professor G P Gooch, had told British Intelligence, who told the FBI, that I had been in the May Week show put on by The Footlights. The BBC Empire service had broadcast part of it, and Sir John Reith, head of the BBC, wanted me to be a radio actor. Gooch told me to refuse the offer since, once I had graduated, he would help me to find work more suited to my talents.

Mr Paul Kramer (1935)
NEW TRINITY FELLOWS

NEW TITLE ‘A’ FELLOWS (JUNIOR RESEARCH FELLOWS)

Joseph Conlon works on the mathematics of ten-dimensional string theory. Optimists believe string theory offers the best hope of a unified theory of natural forces. Oleg Glebov, a cell biologist, has revised the received view of ‘endocytosis’—in which cells ingest new material and communicate with each other—by tricking cells into swallowing tiny magnetised beads that he can then track. Christopher Heaton works on aero-acoustics, asking why jet engines are so noisy. He has identified a new kind of instability in jet-engine outflows that may, he hopes, suggest new designs to quieten jets down. Madeleine Humphreys tries with a microscope to understand what happens to magma in the last few kilometres before it erupts from a volcano—in her case on Russia’s Kamchatka peninsula. Geraldine Parsons has revolutionised our understanding of the fiendishly difficult Mediaeval Irish text ‘The colloquy of the Ancients’ or ‘Accallam na Senorach’ by showing that it had a single author, and is not a mere compendium of folklore.

By showing how the Bourbon rulers of Spain reformed their ideas of how to control and develop their American empire, Gabriel Paquette has suggested how intellectual historians might begin to rethink the concept of Enlightened Despotism. Aysha Pollnitz has shown how the education of early modern English and Scots royalty changed, from one intended to restrain their overmighty pretensions to a ‘political’ study of how to enhance royal statecraft. One of her sources, the schoolroom exercises of James VI of Scotland’s son Henry, is in the Wren. Suchitra Sebastian works on a barium copper silicate that fascinated ancient Chinese craftsmen with its purple dye, enthrals Californian physicists with its magnetism, and which she can persuade to behave as if it had two dimensions only, not three.

NEW TEACHING FELLOWS

Judith Driscoll, Reader in Materials Science, comes from Imperial College as an expert on the chemistry of superconductivity that might one day enable the transmission of electricity without loss of energy. Michael Tehranchi, Lecturer in Applicable Mathematics, comes from Princeton via the University of Texas where he was a postdoctoral fellow. He is expert in the financial mathematics of hedging strategies for bond-dealing and the pricing of options. Sarah Teichmann, Lecturer in biological sciences, has for the last four years led a research group at the Laboratory of Molecular Biology on the interaction between proteins and on how genes regulate their own formation.

NEW PROFESSORIAL FELLOW

Daniel Wolpert comes from University College London as Professor of Engineering. A bio-engineer, he designs robots and asks how people and animals relate to their surroundings. This is a deep challenge. While we can programme computers to play world-class chess, no robot can yet beat a five-year old child on a real chessboard.

This is a summary of the Master’s speech of welcome at the Fellowship Admission Dinner, Michaelmas 2005.
“[The mission] shows a finer side of Trinity than can be seen at Cambridge, for all the beauty of [the] Great Court.”

Mission annual report, 1919

The College has been involved in Camberwell since 1885, when it established a Mission in the inner London parish. Trinity in Camberwell, the mission’s successor, was formed to advance education, relieve need, and promote charitable objectives for the benefit of the community within the parish and its neighbourhood. As early as 1936, the Trinity College mission emphasized the mutual benefits received from the partnership between Trinity College and South London. The then Master, J.J. Thomson, stated that “Camberwell has something it can give to Trinity, just as Trinity has something it can give to Camberwell.” This spirit of partnership is equally relevant today. The Friends of Trinity in Camberwell (formerly the Ladies Committee) support the work of the Centre through donations and visits and by organising hospitality for groups who want to visit Cambridge. A current member of the Friends’ Committee says: “It is good to feel part of something which still, 120 years after its formation, forms a bridge between two very different ways of life, enriching the lives of those at both ends.”

This year on 13 October we will celebrate the 25th anniversary of the opening of the Centre by Sir Alan Hodgkin. We will be launching an appeal to ensure its future and hope to keep all Trinity members informed in future issues of The Fountain. Please also refer to the College’s website: www.trin.cam.ac.uk

“I love the staff—they are really encouraging and funny and are great company”

“It is a nice happy, cheerful scheme”

“Thank you for keeping me safe and having a good time”

Many readers will remember being asked to volunteer for our annual children’s Holiday Scheme. Its aim has remained the same since its inception: to enjoy each other’s company and “to visit anything inside or outside, that promises to be of interest.” This year’s fun included
The heart of Trinity in Camberwell has always been the people who use the Trinity College centre, which was opened in 1981. The current Warden of the Centre, the Reverend Nicholas Elder, muses on a typical day:

‘It is Wednesday midday. In the Ark Hall, 24 children in Kinderella Pre-School are intently listening to a story. By 2.00pm the Hall will be full of children attending the After-School Project, where they will play games, do homework and do arts and crafts until 6.00pm, when the Youth Club starts. Throughout all this time, in the Main Hall, the Boyhood to Manhood Foundation has been working away. The Foundation believes that boys in trouble deserve a chance to turn their lives around before it becomes too late. As I pass, the leaders are having some rather tense Circle Time with fifteen black lads excluded from school... but I still get the usual cheery wave from them. Army Cadets will meet in the Main Hall at 6.30pm.

‘If you were to ask me what Trinity in Camberwell meant to these users, I would reply that everyone knows they matter, no one is patronised and each individual is respected.’

a visit by the whole Scheme: 105 children and 45 volunteers to Chessington World of Adventures. We are looking forward to our 40th Anniversary dinner during this summer’s Holiday Scheme, which will run from 31 July to 12 August, and hope that some of the Trinity members who have volunteered over the years will be able to join us to swap photographs and stories. Please contact Ruth Adams, rha20@cam.ac.uk, if you would like to come or to share some of your memories.

“*I had a really great time, loads of excitement*”

“I really enjoyed volunteering with the summer scheme, I met some incredible young people and the volunteers had a great time too. There was definitely a two way learning process for both the young people and the volunteers—overall, an excellent time was had by all!”
Both University and College are communities which include not only the currently resident members but also all their past members—the non-resident members, as it were.

Rather as Edmund Burke said of the British constitution, the University and the Colleges are a bridge between past and future, in which the present members are trustees on behalf of that wider community. We must remember the past. We also have a duty to think about the future; and we ask you to share with us this responsibility to think about the future of both this University and this College.

In particular, we need to discuss our response to our amazing new legal world—where the practice of law and the nature of law are changing dramatically. We want to consider with you how we might create a continuing and active partnership between those who study and teach the law here and those who make and apply the law elsewhere.

But, first, I want to say something about the individuality of Trinity in the light of its history. I once asked the late lamented Bob Robson if the woodwork of the Great Gate was original. Bob’s reply was ‘of course, why not?’ In old age, I find it moving to think of all those who have pushed open the small wooden door, part of the gate that was made to be the main gate of King’s Hall, the fourteenth-century College which Henry VIII rather provocatively transformed into another College dedicated to the Holy Trinity, like Bishop Bateman’s Trinity Hall—and another royal foundation like Henry VI’s King’s College.

I think of Francis Bacon, no doubt slamming that little door behind him, leaving here for Gray’s Inn in 1575, disgusted by Aristotelianism and about to start a sort of personal English Renaissance—or Edward Coke in 1571, leaving for Clifford’s Inn and the Inner Temple, to initiate a re-founding and re-imaging of English law and to play a part, with Bacon, in the first phase of a revolutionary transformation of English society. Coke was a notoriously unpleasant person. His widow said, ‘We shall not see his like again—praises be to God.’

In the generation after Bacon and Coke there was one whom we might regard as one of the greatest of all our past members—John Winthrop. He came here in 1602, studied at Gray’s Inn and the Inner Temple, went to America in 1630, became the first governor of Massachusetts and more or less founded the cities of Boston and Cambridge. He was the first great sponsor of an idea which continues to have a powerful presence in the American mind—the idea of ‘American exceptionalism’.

In the early nineteenth century, another period of revolutionary social transformation, Trinity produced men who would be central to the new social consciousness—Byron, Thackeray, Macaulay, Tennyson and, not least, F.D. Maurice, remembered...
now as the prophet and apostle of a particular kind of socialism—and who was, among other things, chaplain of Lincoln’s Inn.

The Council of King’s College, London, dismissed Maurice from his professorship for having expressed an unorthodox view of eternity. Tennyson, his friend, addressed a poem to Maurice at that painful time, containing the following immortal lines:

Should eighty-thousand college-councils
Thunder “Anathema,” friend, at you;
Yet one lay-hearth would give you welcome
Take it and come to the Isle of Wight.

Later in the century, Trinity produced two people who would profoundly affect legal consciousness throughout the common-law world—Frederic Maitland and Frederick Pollock.

Now, at the beginning of the twenty-first century, we are in yet another period of profound social transformation. And the present revolution includes a dramatic new legal phenomenon—law on five different levels: international, transnational, European, national, and sub-national law in fully federal countries, but now also, to some extent, in Britain: the federalising, Europeanising, delocalising and globalising of law.

The volume and complexity of law at each level and the interaction of the five levels are now overwhelming, intellectually and practically. The consequences for the legal profession are surely very great.

What should we do to respond to this exciting challenge? That is one of the questions we must now discuss in this University and in this College, among all their members, resident and non-resident.

Philip Allott (1955) is Professor Emeritus of International Public Law at Cambridge and a Fellow of the College. He made these remarks at an informal gathering of Trinity’s lawyer alumni on 15 July 2005. His latest publication is Invisible Power. A Philosophical Adventure Story.
The College choir enjoys a distinguished history, amplified over the past three decades by the brilliance of its director, Richard Marlow, soon to retire. Richard came to Trinity in 1968 and in 1982 established the choir in its current form. His profound ability as a conductor, organist, composer, arranger and inspired leader is a true marriage of talents that has made the choir one of the best mixed choirs in the world. It has toured the globe, giving concerts of outstanding quality and acting as a worthy ambassador for Trinity. It also has a large and critically acclaimed discography.

Richard’s luminosity and dedication have had an incalculable impact, not only on the musical life of Chapel and College but also on the large number of people who are privileged to have been members of his choir. He has enriched the lives of many. The choir’s alumni boast distinguished organists and instrumentalists, conductors, singers and choral groups as well as many able amateurs.

The idea of establishing a choir association dates back to 2000, but the plans only took off when Richard’s retirement and the College’s drive to engender a more contagious relationship with its members were announced in 2004/5.

Those who were not choral scholars when up at Trinity may think the choir was already enough of an ‘association’ and that any subsequent ‘associating’ would be superfluous. The rumoured reputation of many choir members being more than just good friends was, and still is, well founded, as several subsequent intra-choir marriages and long-term relationships will attest.

Apart from providing an opportunity for everyone to meet up every few years our other, more important, objective is to keep members informed about the choir’s plans so that the Association can help the College and choir achieve its musical aspirations.

All past members of the choir, organ scholars, Chaplains and Deans of Chapel are TCCA members, unless they wish otherwise. We levy no membership fee since we wish to be as inclusive as possible. We also have Friends of the Association for all those who have had close ties with the choir (and Chapel), but who would otherwise not be included. If you or anyone you know would like to become a Friend, please make an application or nomination care of:

The General Secretary of the TCCA
The Chapel Office
Trinity College
Cambridge
CB2 1TQ

The Association is holding its inaugural Gathering in College on 1 July, with the kind assistance of the Master and Fellows. As that date falls just after the end of Richard’s final term as director of music.
we will be celebrating, with thanks, all he has done for the choir. The event will comprise an Evensong and dinner on the Saturday, followed by a Sung Eucharist and brunch on the Sunday. These services are, as always, open to all and everybody is most welcome.

Some of you will know that Stephen Layton has been appointed as Richard’s successor. ‘Sid’ Layton is currently at the Temple Church, London and his recordings with Polyphony and the Holst Singers have won universal acclaim. His appointment has created much excitement. Richard has given him a hard act to follow but, if anybody can build on what he has done, Stephen can. The Association extends to him a warm welcome.

The Dean of Chapel, Arnold Browne, who has devoted much time and energy in helping to set up the Association, also leaves at the end of this academic year. His unstinting support of the choir and his leadership in Chapel have been outstanding. He will be much missed. The TCCA wishes him and Caroline all the best in their new life in Norwich.

Over the next few years the TCCA committee hopes to engender in the Association a keen desire to give something back to the College and the choir, in both financial and other generous forms of support. It is vital in this new era when students are expected to pay an increasing share of their educational costs that Trinity, and Cambridge, are enabled to make places, including choral scholarships, available to the most able and deserving. The choir must continue to attract first-class singers and organ scholars if it is to remain at the forefront of choral music and remain Trinity’s key ambassador. This is an important mission. The TCCA is not a mere dining society. It must, and I believe will, turn its friendships into a force for good. Those of you who attended last September’s buffet lunch in Nevile’s will have heard a foretaste of what we can do to enliven College events.

If you would like to know more about the TCCA or any of its excellent alumni performers or groups please look at our website which will be linked to the choir page of the College’s site. Alternatively, please contact me via the above address or via ngyates@btinternet.com.

Nicholas Yates (1991) is TCCA General Secretary

---

### Choir Concerts & Tours

**8–18 April 2006**
- **Tour to Lima, Peru**

**11 June 2006**
- Singing from the Towers at 12.00 noon, Great Court
- Singing on the River 8.45pm, Trinity Backs

**23 June 2006**
- 7.30 pm concert, St Mary’s Church, Gainford, Co. Durham

**24 June 2006**
- 7.30 pm concert, St Oswald’s Church, Guiseley, West Yorkshire

**25 June 2006**
- 8.00 pm concert, St Michael’s Church, Linton, North Yorkshire (part of the Grassington Festival)

**27 June 2006**
- (7.30pm) concert, Swaffham Parish Church, Norfolk

**8–18 September 2006**
- Tour to Switzerland and Germany
  - Concerts in Sankt Blasien, Rapperswil, Einsiedeln, Sankt Gerold

Further information can be obtained from the chapel secretary: e-mail: chapel@trin.cam.ac.uk
- tel: 01223 330870
An important part of my research in Cambridge focuses on the behaviour of business cycles. Central banks like the Bank of England and the US Federal Reserve have to consider them when setting interest rates. Fund managers take account of them when allocating their assets between property, bonds and equities. They have both national and global dimensions; they affect industrial output and employment, as well as financial variables like equity returns and inflation rates.

Over the past twenty years business cycles have become more and more synchronized across the world, and present increasingly difficult challenges for policy makers and financial managers. This globalisation of business cycles may arise from obvious common shocks, like an oil-price rise; from less obvious global effects like the opening up of markets and the spread of technology; or from reactions to local political or financial crises.

Not all countries react to these cycles in the same way. There are also major differences in the way output, inflation, interest rates and asset returns correlate across economies. Equity returns and long term interest rates are much more closely correlated internationally than are output growth and unemployment rates.

If, then, you are an analyst, politician, banker or entrepreneur, you have to juggle highly complex interrelationships, both national and global.

GLOBAL VECTOR AUTOREGRESSIVE MODEL (GVAR)

Together with colleagues at the European Central Bank and Cambridge’s Judge Business School, I have developed a model that tries to perform this juggling act by quantifying the key relations between global markets and national economies. We assembled this relatively large global model from separate country models that allows for the dynamic interdependencies that exist between them. We call it a Global Vector Autoregressive Model or GVAR. It makes sense of the kaleidoscopic nature of the global economy by relating the core variables in each national economy to corresponding, suitably trade-weighted, measures in other countries. The main national variables are: output, inflation, short- and long-term interest rates, stock market prices and the exchange rate. For some parts of the world our information is too sketchy to include them all, and we found we had to measure trade weights over a period of time. Moreover, some economies are so dominant that they need special treatment. To grasp America’s role in the model, for instance, there is no point in including foreign equity prices or interest rates since they are largely driven by the USA.

After making such allowances the GVAR gives us a single system for calculating the movement of the world economy’s core variables. At present it covers the thirty-three countries (with the eurozone treated as one country) that account for ninety per cent of world output. It allows us to see how 134 different variables in these economies have interacted over the past quarter-century, yet it is ‘small’ enough to run on a standard personal computer.

With the GVAR we can explore the various channels through which economic change is transmitted. We can see how far the size and trading patterns of different countries determine their reaction to shocks elsewhere. The GVAR is also good at telling us which shared factors of economic interdependence exert most influence on global business cycles and which the least. We can in consequence explain many of the mutual dependencies that exist in output growth, inflation, equity returns and interest rates across countries. Exchange rates have proved to be more of a problem. We cannot yet fully explain the strong mutual dependence between many of them. The euro and yen, for example, tend to move together vis-à-vis US dollar. Our best guess is that the global dominance of the US dollar is the common cause. If so, that is a risk that is difficult for policy-makers to evade.
Uses of the GVAR Model

The GVAR can be used in many contexts and for a variety of purposes. It seems especially handy for people who make strategic decisions on how to allocate assets between bonds and equities across different markets; or who analyse credit risk; or need short- and medium term economic forecasts; or who are interested in the counterfactual analysis of how things might have turned out had different decisions been taken. With my colleagues I have, for instance, analysed the risks to which a globally diversified portfolio of bank loans would be exposed under a variety of potential economic shocks. We have also asked, ‘What would have happened had the UK or Sweden joined the eurozone in 1999?’ And why have oil-price rises affected the American and eurozone economies so differently? To show what the GVAR can clarify, the figure shows the impact of a 10% rise in oil prices on different stock markets.

We have found, first, that while financial shocks—in equity and bond prices—spread rapidly, shocks to output or inflation take up to three years to take full effect, and with less uniform global results. Equity and bond markets also move more closely in step around the world than do foreign exchange markets. Thirdly—something that will not please Eurosceptics—euro-area economies and European countries outside the eurozone have reacted very similarly to external economic developments. Finally, how well countries cope with oil-price rises is largely determined by the monetary policy they adopt in response.

References to Professor Pesaran’s research on GVAR, done in collaborations with Til Schuermann of the Federal Reserve Bank of New York, Stephane Dees and Filippo di Mauro of the European Central Bank, Ron Smith at Birkbeck College, London, and Vanessa Smith of the CERF at the Judge Business School, can be found by visiting www.econ.cam.ac.uk/faculty/pesaran/public.htm

Hashem Pesaran (1979) is Professor of Economics at Cambridge University and a Professorial Fellow of the College.

Time Profiles of the Effects of a 15% Rise in Oil Prices on Real Equity Prices in a Number of Industrialized Countries
SPORTING TIES 1974 TO 2005

BY PETER KEARNEY

The Annual gathering on 5 July 2005 was for members who graduated in 1973 and 1974. 1974, so far as I know, is the only year in which Trinity won both the Inter-college League and Cup for soccer. Our team spirit and love of playing the Beautiful Game continued after University. Several of us joined London’s Honourable Artillery Company team, where we continued to play through the 1970s and 1980s. Three of us lasted into the 1990’s—HAC has a veteran’s team!—and one idiot (Peter Kearney, 1971) still plays for the HAC at the tender age of 53. The HAC Cambridge connection continues: the HAC 1st team has an annual fixture against the Blues and recruits several Cambridge graduates each year.

But, back to the Annual Gathering. Of the 1974 team, eight were 1974 graduates. We managed to locate seven of them, but only four could make it to the Gathering. See the attached photos: can you match the grey oldies to the hairier young men of 1974?

TRINITY SMASHES ROWING WORLD RECORD

Two Trinity Alumni broke the world record for rowing one million metres on a rowing machine last autumn. Rich Dewire (1996) and Dan Darley (1994), who row together as Atlantic Prince, beat the old record by over 4 hours when they completed the full 1,000,000 metres in 72 hours, 17 minutes—a fraction over three days. In the course of breaking the world record they raised sponsorship money for the Make a Wish Foundation and Cancer Research UK.

Rich and Dan’s record-breaking charity ergo was a preparation for their row in this year’s Woodvale Events Atlantic Race. They started from the Canary Islands on 27 November and finished in Antigua, 3,000 miles away on 27 January 2006. Having spent 62 days rowing 24 hours a day—together or alone—they were the fourth double across the finish line. Their little 24ft boat, Talkeetna, carried all their food, water and emergency supplies for the entire voyage and crossed the Atlantic for the fourth time. Despite terrible conditions at sea, this was the fastest of her four voyages. You can find more information and their daily blog on the web.

www.atlanticprince.com