# THE UNIVERSITY OF WARWICK

2009/10, no. 2: March 2010

Bulletin of the Economics Research Institute

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## Channelling Schelling: Thoughts on parenting, governing, and credibility 50 years after *The Strategy of Conflict*

Abhinay Muthoo is director of the Economic Research Institute and chair of the Department of Economics

Credibility is a powerful and compelling notion. An amalgam of trust and believability, it provides a lens for examining and understanding economic, social, and political situations arising in many arenas, as two divergent but related situations that have come to my attention of late suggest.

Consider the following interaction between a father, Abhinay, and his daughter, Aruna. Abhinay says to Aruna that if in future she loses her mobile phone, he will not buy her another one for at least six months. The purpose of such a statement is to give Aruna the incentive to take good care of her mobile phone. However, she may choose not to incur the costs that come with keeping track of a mobile phone if her father's statement, or threat, is not credible. That is, perhaps Aruna believes her father will capitulate if she loses her mobile phone, and is thus unable to communicate with her family when she is out and about, causing him considerable worry! This is but one small example illustrating the difficulty that parents face in establishing credibility with their children.

Then, consider an example of a similar credibility problem, one faced by many governments. Political leaders say they will act prudently in the future when influencing the setting of interest rates. But when that future arrives, and times are bad, they then behave quite differently in order to protect their electoral objectives. This rightly perceived lack of credibility impacts on the current behaviours of firms, consumers, and other economic actors. And that, in turn, adversely affects economic outcomes.

For instance, a commitment to the setting of interest rates independent of government politics was a fundamental rationale for the creation of the now famous Monetary Policy Committee (MPC) of the Bank of England by the Labour government in 1997. Indeed, creating this institutional mechanism was one of the party's very first acts upon gaining power after around two decades in opposition. The goal was to establish government credibility in this critical policy arena.

In various forms, the same dramas, all matters in which credibility lies at the heart of the matter, are now in the world spotlight. As the United States debates whether it will fashion a new health care plan, one question concerns the credibility of the threat to require citizens to have insurance. As nations worry about Iran's nuclear weapons capabilities, questions emerge about what possible sanctions will be credible enough to serve as deterrents. Then, too, credibility is at stake in the financial markets as the crisis over the Greek government's debt situation confronts the European Union.

As these varied events illustrate, establishing and maintaining credibility is not easy. Credibility, or a lack of it, underlies interactions among institutions – governments, markets, businesses - and among humans – family, friends, and colleagues.

At times such as these, one may seek useful insights from timeless sources. Thomas Schelling's classic treatise *The Strategy of Conflict*, still offers fresh insight half a century after it was published. The seminal book on bargaining and strategic behaviour by the Nobel laureate underscores the relevance of economic research and game theory in so many current world situations in which credibility is a key element. In reading it, one is reminded of the critical similarities that underlie seemingly unrelated events, such as deterring the proliferation of nuclear arms, crafting beneficial monetary policies, and the raising of one's children.

Good luck in establishing your credibility!

## Question: how much should your surgeon earn? Answer: how good is your surgeon?

Healthcare debates taking place in public policy arenas across the world face a common challenge: finding a way to design a system that can provide high quality care at minimum cost. Research by Alex Gershkov and **Motty Perry** focuses on how "optimal" contracts with providers that achieve this aim by paying good doctors more than bad ones.

Healthcare policy debates are high on the public agenda in many countries at present, particularly in the United States, where reform is a cornerstone of President Obama's political agenda.

The central ambition of any healthcare system is to maximise care quality while minimising costs. Our research suggests that one way to achieve this goal is to pay good doctors more than bad ones. We characterise the way that this ought to be done, keeping in mind that doctors' qualifications as well as the severity of patients' problems are often known only to the doctors themselves.

Our research suggests that optimal contracts should take account of the differing skills of doctors by offering physicians a choice of two career paths:

• The first career path, aimed at attracting the most talented doctors into positions requiring the most

demanding skills, would offer physicians financial rewards for demonstrating a long history of success with difficult medical cases.

• The second career path, aimed at channelling worse doctors into more pedestrian medical services, would offer lower pay rates over the course of a career dealing with less challenging and straightforward medical issues.

The research shows that healthcare authorities must design optimal contracts in a way that takes account of doctors' incentives, and, in particular, acknowledges that doctors themselves know their own skills best, with outside authorities at a decided disadvantage in trying to observe how much effort doctors put into providing care.

Governments and healthcare authorities need to take doctors' "informational advantage" into account as they consider how to design efficient healthcare systems. In any doctor-patient relationship, the doctor knows more than the patient about critical elements that determine the best course of treatment. For example, the doctor has better information about the medical condition of the patient and the severity of the illness.

The doctor also knows more about the relative merits of the various treatment options. The doctor, more than the patient, knows his or her medical skills and whether they are well suited for a particular type of treatment, such as a surgical procedure. In addition, the amount of effort that doctors exert in carrying out their work is not easily observable to third parties, such as their managers, the government or insurers.

### One way to maximise healthcare quality while minimising costs is to pay good doctors more than bad ones

This informational advantage of healthcare providers is a crucial factor that governments or healthcare authorities face in determining the structure of the contracts they offer. A key aim in the design of such contracts is to provide appropriate incentives to the doctors – ones that will induce them to provide the right treatment to the right patient in a cost-effective manner.

Because of this informational advantage, medical services belong to a special category of "credence" goods and services – those that make evaluating their merits difficult or impossible for the consumer. The inherent problem with credence goods and services is the asymmetric information between providers and consumers.

The vast majority of research on credence goods takes what economists call a positive ("what is") approach, studying the present situation as it exists. Our work is among the minority of research projects on credence goods that adopts a normative ("what ought to be") approach.

Our mathematical models explore the market prospects for the provision of medical treatment. They are structured to show how governments and healthcare authorities ought to design and organise their systems to maximise the potential for good healthcare while minimising costs.

Our work sheds light on some pressing issues facing the industry. For example, among physicians, there is a widespread belief that the healthcare system is suffering from high costs, inefficient production, and lack of security rather than skewed financial incentives.

But information problems make it difficult for people to choose care appropriately, even when patients have a strong financial interest in doing so – for example, because they must pay for their own medical services or because they face limits on the amount their insurer will pay. Indeed, price and quality comparisons may be impossible for people with emergency medical needs and difficult even for those without emergencies.

The US Institute of Medicine has endorsed the potential of such contracts, as evidenced by its recent call to increase payments to healthcare providers who deliver high quality care.

Not only do surgeons react to financial incentives, but they may over-react in a way that is not in the patient's best interest by performing tests and procedures that are not needed. Estimates suggest that approximately onethird of common medical tests and procedures are inappropriate or of equivocal value.

For example, one study demonstrates that the number of examinations to detect microscopic cell abnormalities of the cervix increases with the fees that doctors receive for the tests. Another study shows that the frequency of caesarean births compared with normal child deliveries corresponds to the fees paid by various health insurance programmes.

A Swiss study finds that the average person's probability of receiving one of seven major surgical interventions is one third above that of a physician or a member of a physician's family. And a study by the Federal Trade Commission documents the tendency of optometrists to prescribe unnecessary treatment.

These findings are exactly what we might expect to find in a naïve market for credence goods. The challenge is to design a system that takes account of agents' incentives and aligns them in the least costly way with the goals of society as a whole. Our research indicates how, in certain cases, such goals can be achieved. The findings have implications not only for individual contracts but for the way healthcare systems as a whole are organised.

We suggest that healthcare systems ought to establish the two tiers of provider contracts for the long term by offering new doctors a choice of the "good" or "bad" track at the beginning of their careers:

- Beginning doctors who are confident of their skills will choose to take the most demanding positions, with the promise of large financial gains down the line.
- Doctors with poorer skills would forfeit receiving substantially higher payoffs later in their careers in exchange for handling more mundane and less-demanding medical matters.

Contracts must be structured over long periods of time to optimise their worth effectively and achieve the twin goals of funnelling doctors into the good or bad categories and of minimising healthcare costs.

Good doctors should be offered contracts with the promise of significant financial gain after many years of work in which these doctors must prove their worth by showing a history of surgical successes. Otherwise, if contracts offer good doctors more money from the beginning of their careers, bad doctors will be tempted to claim to be better than they are.

The option of rejecting riskier patients would not be part of the optimal contract for good doctors who receive higher pay

A recent US controversy over a proposed system of physician report cards illustrates the type of incentive problems that sometimes arise in the industry. These cards would encourage public disclosure of patients' health outcomes with individual doctors. Supporters argue that the system would give providers powerful incentives to improve quality. Sceptics counter that report cards may encourage providers to "game" the system by avoiding sick patients, seeking healthy patients or both.

The desire to improve the quality of healthcare services by providing incentives is one of the driving forces for broad-based reform. But the contracts must also be fashioned in a way that achieves social goals, for example, ensuring that the sickest patients are not rejected for the sake of preserving a physician's record of success.

The optimal physician contract could achieve this goal because doctors who opt for the high-skill, high-pay track would do so knowing that they would have no choice but to take the riskiest cases. Rejection of certain patients would not be part of the optimal contract for good doctors.

Many recent healthcare reform proposals seek to reduce expenditures by shifting the delivery of services toward "managed-care" organisations like health maintenance organisations (HMOs). Indeed, evidence suggests that HMOs have lower hospitalisation rates and shorter hospital stays, and also use fewer expensive tests and *Continued on page 6* 

### **Opening the CAGE**

New **Centre for Competitive Advantage in the Global Economy** (CAGE) begins research on how markets, institutions, and public policies interact to create and sustain competitive advantage in a changing global economy.

Warwick's Department of Economics announces the creation of the Centre for Competitive Advantage in the Global Economy (CAGE), a £4.4 million programme designed to use innovative research techniques to address the urgent economic issues that define our times: the struggle of nations to adjust to rapid and relentless global economic change.

The centre intends to extend the existing research frontier through new empirical work, new analytical frameworks, and new policy solutions. Established in January 2010 by the Economic and Social Research Council (ESRC), the centre has a bold mandate that places it at the forefront of both academic and policy research. Though the issues that CAGE will investigate are extraordinarily complex, its focal point is simple. CAGE's research agenda is, in its essence, managing change.

CAGE's cutting-edge research will address the struggle of nations to adapt to rapid and relentless global economic change

CAGE will examine the ways in which markets, institutions and public policies interact to create and sustain competitive advantage in a changing global economy, how such advantage evolves over time and how deprivation and wellbeing are influenced in both the short and long run.

The centre will investigate the salient factors that lie behind economic success generally, as well as with an eye towards what works in a particular country's setting. Researchers will examine the dynamics behind global economic "churn," looking closely at ways to confront difficult but necessary change and focusing on the potential to sustain growth and support wellbeing. A key goal is to explore the options for realising the benefits of continued economic success while mitigating the costs.

Under this mandate, CAGE poses three big questions:

- 1. What explains catching up, forging ahead or falling behind in economic growth over the long run?
- 2. How do countries adjust successfully to new opportunities and challenges presented by global economic development?
- 3. When does succeeding in the global economy translate into reduced deprivation and enhanced general wellbeing?

The ESRC has invested £3.6 million in the centre's fiveyear research endeavour, and Warwick University has contributed another £800,000. The ESRC selected Warwick University's Department of Economics as the site for the centre because of its existing research strengths in economic history, economic theory, empirical economics and the political economy of development.

Nicholas Crafts, professor of economics and economic history, leads the innovative centre. Other Department of Economics professors will head research endeavours on the three central questions under investigation by CAGE:

- Professor Sayantan Ghosal is the research director and chairs the research strategy group. He will lead research that looks at the threshold for reduced deprivation and enhanced general wellbeing.
- Professor Stephen Broadberry will lead research on the explanations for catching up, forging ahead and falling behind in economic growth.
- Professor Sharun Mukand will lead research exploring the dynamics that lead some countries to adjust successfully to opportunities and challenges presented by global economic change.

Though CAGE is not a multi-disciplinary research centre, it aims to forge new ground in economics-based methods. "Our approach will be more eclectic than would be implied by slavishly following the mainstream," Professor Crafts says. "This will probably entail taking some risks. It will certainly make our work exciting and innovative."

For example, Crafts says, CAGE can be expected to transcend the usual purview of traditional economists as it delves into the aspects of institutions design that are conducive to economic development. CAGE research intends to emphasise to a degree that is unusual among economists the importance of political constraints on growth and what economists call "path dependence." The term is sometimes explained by the phrase "history matters" because it refers to the tendency of certain customs and practices to live on, though their practical usefulness may have long since died.

CAGE also intends to depart from orthodoxy in looking at "poverty traps" by emphasising the interaction between physical and psychological aspects of poverty, examining, for example, both the circumstances that plague impoverished communities as well as the crippled aspirations and motivations that can plague impoverished individuals.

CAGE also has a vital mission in helping to shape the next generation of economic research. It will serve as a centre for what the ESRC terms "capacity-building" – training individuals, particularly younger researchers, in its methodologies and techniques. In this capacity, the centre expects to begin work with three postdoctoral fellows and three PhD students in the autumn.

In addition, the centre will run summer schools to offer training in methods to graduate students from around the world. The first of these summer sessions is scheduled for July 2010. Professor Christopher Woodruff and Dr Anandi Mani will lead this first summer school seminar on "Field Experiments in Development Economics."

While a key priority for CAGE is to produce high-quality research that will be published in top academic outlets, its reach will extend far beyond traditional academic circles. A major objective of the centre is to insure that this academic research also has practical impact in helping policy-makers as they confront profound economic turbulence and its attendant human needs.

CAGE intends to use innovative research techniques to examine the key factors that lead to competitive advantage in times of change

CAGE will aim to produce findings that are of interest and value to public policy-makers as they grapple with political, economic, and social realities. To this end, CAGE will undertake unprecedented steps to facilitate outreach to key players in policy-making circles to ensure that they are aware of key research findings and that they can receive assistance in seeking ways to implement the most promising practices.

CAGE researchers intend to publish both articles in the top-tier refereed academic journals and in a series of policy briefing reports accessible to the lay reader. The centre will organise academic conferences as well as host meetings and workshops for audiences drawn largely from the policy-making community and the media.

To this end, CAGE has entered into a formal partnership with Chatham House in London, the home of the Royal Institute of International Affairs. CAGE's efforts to reach a broader audience will benefit considerably from the extensive network and expertise provided by Chatham House, whose membership includes people with an interest in international affairs in many walks of life – politics, government, business, non-profit organisations, and the media among them.

On 2 June 2010, CAGE will officially mark its inception by introducing its research agenda and its key researchers to a gathering of guests from a broad spectrum of academics and policy-makers.

Debraj Ray, the Julius Silver Professor of Economics and Director of Graduate Studies in Economics at New York

## Lessons in "pork barrel politics" from India

Research by **Wiji Arulampalam**, Sugato Dasgupta, **Amrita Dhillon**, and **Bhaskar Dutta** finds hard evidence of "pork barrel politics" at work in India, where political considerations of elected officials hold sway over citizens' needs.

possibilities.

available

http://go.warwick.ac.uk/cage/.

podcast,

One of us recently asked a local politician in a central Indian state how elected officials there allocated their tax revenues among different groups of voters. He replied that it was prioritised thus: the strongest emphasis goes to "swing" voters; then to loyal voters who vote for the party regardless; and last to voters who support other parties.

We find striking confirmation of this politician's frank admission in a study analysing data on grants from the Indian central government to 14 state governments between 1975 and 1997.

Politicians allocate budgets to increase their chances of re-election, focusing more on swing voters than their core supporters

Two factors determine how much money the central government allocates to a state. First, the alignment of the incumbent party at the central and state levels and, second, how "swing" (undecided among political parties) a state is predicted to be in a particular state election. A state that is both aligned and swing received 16 percent more in transfers than a state that was neither.

In India's parliamentary democracy, parties want to win the largest number of state elections because winning in state elections is closely linked to winning in central elections.

State governments use grants to finance public goods – for example, road building, electrification of villages, telephone connectivity, water, or sanitation facilities in poor neighbourhoods. These projects build goodwill for the party that is credited with providing the grants.

If a state government is aligned with the central incumbent, then both levels of government benefit: voters will reward the party in the state-level election or the central election. But if the state incumbent party is not aligned, then the credit is shared between two different parties: this is why central governments limit the grants to states that are not aligned.

In swing states, a small increase in goodwill can lead to large gains in votes. Of course, the benefit only goes to the incumbent party at the centre if the state is an aligned one. Parties allocate expenditures to maximise their chances of getting re-elected, and this effect holds both for central and state-level elections.

In our data, the Congress party dominated central elections for most of the period. The Indian states that were electorally very important at the state level were Bihar, Kerala, and Uttar Pradesh.

Both Bihar and Uttar Pradesh had multi-party contests during the period 1975-97, where a small swing in favour of one party led to a large change in election results. In Kerala, two main alliances surfaced: one led by the Congress party and one led by the Communist party. Our measure of alignment in Bihar was high relative to other reference officials field sway over childens fields.

University, will deliver the event's keynote speech on "The

Future of Development Economics." Ray's research

interests include income and wealth distribution, as well as collective action and group formation. His work in

development economics has been praised for its elegant

combination of theoretical reasoning and empirical circumstances, such as institutional limitations and

CAGE will disseminate Ray's keynote speech through a

the

CAGE

website:

through

states, hence Bihar wound up being a favoured state. A comparison of two states in our period of study underscores our findings: Rajasthan was both aligned with the central government and a swing state, while West Bengal was neither aligned nor swing.

Average per capita grants to Rajasthan were three times greater than those to West Bengal, as measured in 1980-81 prices. Rajasthan also happens to be marginally higher ranked than West Bengal in terms of per capita income.

This shows the problem of letting politics decide the allocation of grants: governments look less at whether a particular state is deserving or needy and more at how important it is for re-election.

### Budgetary manipulation for political gain could be reduced by using formulae that allocate funds based on need and efficiency

Similar studies from Argentina, Australia and Spain have underscored the global span of the problem. In one example, Peter John, Hugh Ward and Keith Dowding show that funding for local public and private bodies through the Single Regeneration Budget Programme in England was affected by whether a government whip's constituency fell in that area, as well as the percentage of Westminster seats of the ruling party in the bid area.

Thus, robust evidence suggests that when budgets are being made, citizens' needs often take a back seat to politicians' re-election aims.

So what can be done? It is generally agreed that grants decided by India's Finance Commission are less vulnerable to manipulation for political gains, because they are governed by formulae based on the needs of state governments.

A simple policy prescription from our study is to reduce the discretionary elements in grants and base them on economic considerations governed by formulae. Further research may answer the open question about which electoral systems provide the best incentives for parties to allocate funding in the most economically efficient way.

### Publication details

This article summarises "Electoral Goals and Center-State Transfers: A Theoretical Model and Empirical Evidence from India" by Wiji Arulampalam, Sugato Dasgupta, Amrita Dhillon, and Bhaskar Dutta, *Journal of Development Economics* 88:1 (January 2009).

### The authors

Wiji Arulampalam, Amrita Dhillon, and Bhaskar Dutta are in the Department of Economics at the University of Warwick. Sugato Dasgupta is at Jawaharlal Nehru University.

## Philanthropic pursuits: Analysing how public policies affect donors' support for charities

Compelling recent events have thrust the need for charitable giving into the spotlight on the world stage. **Kimberley Scharf** and Sarah Smith investigate how potential changes in UK tax policies could affect donations.

The recent tragedy unfolding in Haiti exposed human need in heart-rending detail. The global recession has led to a surge in demand for charities that help the growing ranks of the unemployed and the needy both at home and abroad.

At the same time, with many governments considering ways to cut spending, institutions that have long relied on public monies increasingly find themselves turning to private sources of fundraising. State-supported universities seeking charitable donations from alumni and other donors are but one example.

Against this backdrop, our research explores how possible tax changes in the UK's Gift Aid programme might affect donors' decisions about how much money they give to charitable causes.

Surprisingly, our analysis suggests that donors who are eligible to receive rebates on charitable giving are unlikely to reduce their donations if the rebate component were to end. For charities, this suggests that the total funding available to them would be likely to increase if the government were to redirect the rebates for which higherrate taxpayer donors are eligible, and instead offer the money to charities through a matching programme.

Donors eligible for tax rebates on charitable giving are unlikely to reduce their donations if the rebates should end

The Gift Aid programme provides tax relief on money donated to charities by treating donations as if the donor had already deducted the basic tax rate of 20%. The programme has two key provisions:

- The first provision involves a "match" for charities, allowing them to reclaim the tax portion of a donation. That is, for every pound donated out of net-of-tax income, a charity can reclaim 25 pence, equal to the 20% rate of relief on the gross equivalent donation.
- The second provision involves a "rebate" for donors who are in a higher tax rate category, of at least 40%. These donors may receive a rebate of the tax payable on the portion of their income they devote to charity. For every pound donated out of net-of-tax income, higher-rate taxpayers can thus reclaim an additional 25 pence, corresponding to the difference between the higher rate and the basic rate of income taxation.

Our study is based on online surveys of nearly 4,000 donors who had recently given to Gift Aid through JustGiving or the Charities Aid Foundation's Charity Account – two popular, UK-based "giving portals" through which private donors channel their donations to the charities of their choice.

Donors were asked to consider how their donations might change under two alternative scenarios. In each hypothetical scenario, the rebate eligible for higher-rate donors would be eliminated and replaced with an increased match that the charities could claim directly, at different hypothetical levels. The two options were:

• Redirection: under this scenario, charities could reclaim 50 pence for every £1 donated out of net-of-tax income by higher-rate taxpayers (identified by a tick box on donation forms). Charities would continue to reclaim the 25 pence for every £1 donated by basic-rate taxpaying donors.

• Composite rate: under this scenario, charities could receive a higher level of match for donations, regardless of whether they came from higher-rate or basic-rate taxpayers. For the survey, two composite rates were proposed: 30 pence and 37 pence per £1 pound donated out of net-of-tax.

Separately, researchers conducted extensive interviews with major donors who had given more than £100,000 a year to charitable causes.

The survey results suggest that a switch from a tax rebate to a donation match as a method of delivering government support to private giving may result in an increase in total gross donations. This is the case even when the rebate and the match offer equivalent levels of support – and might therefore be considered as being fully equivalent from a narrow economic perspective.

Switching from a tax rebate to a donation match would probably lead to an increase in charities' revenues

The majority of people eligible for rebates do not claim them. When asked why they would not adjust their donations, the majority said it was because they had decided how much to give before thinking about the tax incentives.

The survey's results are surprising in that we might expect donors to prefer a system that essentially reduces the price of giving. Separate research by one of us (Kimberley Scharf) on the motivations behind these preferences suggests that the behaviour can be explained with a model of "rational inattention," with donors deciding whether the details of the rebate merit are worth the investment of time they require.

The basic insight is that you are more likely to pay attention if you think it is going to be costly not to pay attention. If the cost of making a mistake by not paying attention to the rebate is low, donors decide to ignore it. As the mistakes donors can make by neglecting to process changes in the rebate are potentially larger than those that could result from ignoring changes in the match, donors will respond differently to the two types of changes.

Our analysis will help researchers develop a better understanding of the myriad motives behind charitable giving, and help refocus debate about how donations are affected by tax incentives that lower the price of giving to charity. More broadly, it shows that the economic choices that individuals make can be significantly affected by the degree of complexity of the calculations involved.

### Publication details

This article is based on "Gift Aid donor research: Exploring options for reforming higher-rate relief" by Kimberley Scharf and Sarah Smith, a research report commissioned by HM Revenue and Customs on behalf of HM Treasury, available from:

#### http://www.hm-

treasury.gov.uk/psr\_giftaid\_higherraterelief.htm.

### The authors

Kimberley Scharf is a professor in the Department of Economics at the University of Warwick. Sarah Smith is a senior research fellow at the Centre for Market and Public Organisation at Bristol University.

## *From page 2: How much should your surgeon earn?* procedures than traditional healthcare providers.

For example, the *New York Times* recently reported that for two triple coronary bypass surgeries performed only months apart, George Washington University Hospital received \$28,113 from a traditional insurer but only \$10,987 from the HMO Kaiser Permanente.

Proponents of HMOs often emphasise their ability to contain costs by implementation of a payment scheme that aligns physicians' incentives with those of the healthcare plan. But considerable debate remains about the sources of the cost savings generated by HMOs. Our study indicates that optimal contracts for physicians at HMOs are less costly, and one potential source of this efficiency gain for HMOs.

### Further details

This article is based on recent research presented in "Contracts for Providers of Medical Treatment" by Alex Gershkov and Motty Perry, available as Discussion Paper no. 516 of the Center for the Study of Rationality at the Hebrew University of Jerusalem and at:

http://ratio.huji.ac.il/dp\_files/dp516.pdf.

#### The authors

Alex Gershkov is a professor in the Department of Economics at the University of Bonn. Motty Perry, a Fellow of the Econometric Society, is a professor in the Department of Economics at the University of Warwick and at the Center for the Study of Rationality at the Hebrew University of Jerusalem.

### The University of Warwick Economics Research Institute

The ERI is an integral part of the Department of Economics at the University of Warwick. Its members include the academic and research staff and research students of the Department of Economics; visitors attached to the Department of Economics; and scholars from other institutions who are associated with programmes of research administered within the Institute.

The Director of ERI is Professor Abhinay Muthoo (a.muthoo@warwick.ac.uk).

The aims of ERI are to promote directly and indirectly research in economics and interdisciplinary research that has an economic aspect; to facilitate the funding and organisation of collaborative research projects involving the participation of members of the Department of Economics; and to support scholarly activities such as conferences and research networks that extend beyond the routine scholarly life of the Department of Economics.

The Bulletin of the ERI appears once a term. Each issue features summaries of published or forthcoming research by ERI members. The Bulletin is produced by Karen Brandon (k.brandon@warwick.ac.uk) and edited by Romesh Vaitilingam (romesh@compuserve.com).

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