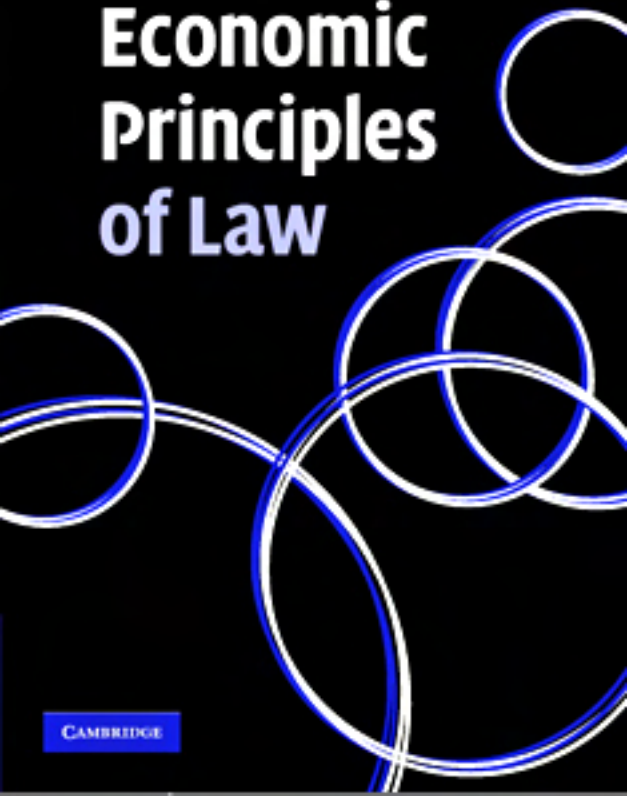
Cento Veljanovski

Economic Principles of Law



CAMBRIDGE

CAMBRIDGE www.cambridge.org/9780521873741

This page intentionally left blank

ECONOMIC PRINCIPLES OF LAW

Economic Principles of Law applies economics to the doctrines, rules and remedies of the common law. In plain English and using non-technical analysis, it offers an introduction and exposition of the 'economic approach' to law – one of the most exciting and vibrant fields of legal scholarship and applied economics. Beginning with a brief history of the field, it sets out the basic economic concepts useful to lawyers and applies these to assess the core areas of the common law – property, contract, tort and crime – with particular emphasis on their doctrinal structure and remedies. This is done using leading cases drawn from the birthplace of the common law (England and Wales) and other common law jurisdictions. The book serves as a primer to the wider use of economics which has become increasingly important for law students, lawyers, legislators, regulators and those concerned with our legal system generally.

CENTO VELJANOVSKI is Managing Partner of Case Associates; IEA Fellow in Law and Economics; Associate Research Fellow, Institute of Advanced Legal Studies, University of London; Visiting Fellow, Law and Economics Centre, Australian National University; and Affiliate, Interdisciplinary Centre for Competition Law and Policy, Queen Mary College, University of London. Dr Veljanovski was the first economist appointed to a lectureship in a law department at a British university and has written many books and articles on industrial economics, economic reform, and law and economics. He also serves on the editorial boards of several journals, including the *UK Competition Law Reports* and the *Journal of Network Industries*.

ECONOMIC PRINCIPLES OF LAW

CENTO G. VELJANOVSKI
Case Associates

iea

The mission of the Institute of Economic Affairs is to improve understanding of the fundamental institutions of a free society by analysing and expounding the role of markets in solving economic and social problems. It pursues its mission through publications of monographs, books and a journal, Economic Affairs; and through seminars and conferences. Much of the IEA's output is available free of charge on www.iea.org.uk

CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press
The Edinburgh Building, Cambridge CB2 8RU, UK
Published in the United States of America by Cambridge University Press, New York
www.cambridge.org
Information on this title: www.cambridge.org/9780521873741

First published in print format 2007

ISBN-13 978-0-511-28913-2 eBook (EBL)
ISBN-10 0-511-28913-8 eBook (EBL)

ISBN-13 978-0-521-87374-1 hardback
ISBN-10 0-521-87374-6 hardback

ISBN-13 978-0-521-69546-6 paperback
ISBN-10 0-521-69546-5 paperback

To Annabel, Liddy and Tom

Contents

Figures

Tables

Preface

The economics of law is an exciting enterprise and a permanent feature of legal scholarship and economics. But it has made limited inroads in Europe especially if one removes the areas of economic regulation and competition law. One of the reasons for this is the unavailability of texts that cover the subject in a non-technical way and without a focus on North American law. *Economic Principles of Law* has been written to redress this imbalance, and to show that the economics of law has equal applicability to the more than fifty common law jurisdictions outside North America, in this case that of England and Wales.

This book is an introduction to the economics of law for the law student and non-economist. It is neither a legal nor economics text. It is a sampler of the way that economics has been used to examine law generally, and in particular the core areas of the common law – property, contract, tort and crime. The economics used rarely goes beyond the first several chapters of an undergraduate economics text covering basic supply and demand analysis. The discussion is deliberately non-technical except for the odd lapses into diagrams (reflecting the author's professional self-indulgence) which are relegated to boxes separated from the main text which may be skipped without destroying the discussion or sowing seeds of doubt in the readers' mind. At the suggestion of one reviewer I have added an economics glossary to assist the lawyer further in dealing with any jargon.

The decision to write this book was sparked by a casual comment by Richard Epstein of the University of Chicago during a visit to London several years ago. The decision did not fully take into account the effort required to read and digest the mountain of literature on the subject, nor the effort required. As Winston Churchill remarked 'writing a book is an adventure. To begin with it is a toy and an amusement. Then it becomes a mistress, then it becomes a master, then it becomes a tyrant. The last phase is that just as you are about to be reconciled to your

servitude, you kill the monster and fling him to the public.' I couldn't agree more

Early drafts of various chapters benefited from the valuable and critical comments of Hugh Beale, Peter Cane, Stephen Copp, Roger Halson, Gary Sturgess, three anonymous referees selected by the Institute of Economic Affairs, and four by Cambridge University Press. My thanks to all of them. I also received encouragement from Philip Booth, the Editorial Director of the Institute of Economic Affairs and Chris Harrison, Commissioning Editor for Cambridge University Press. Last but by no means not least my warm appreciation goes to Rebecca Sarker and Annabel Veljanovski for their editorial assistance.

London,
September 2006

CENTO VELJANOVSKI

Table of cases

CHAPTER 1

Introduction

> courts in their function of declaring, clarifying and extending legal principle must take seriously the economic consequences of what they are doing.[1]
>
> Hon. Mr Justice Kirby, 1998

The common law is the core of the British legal system and that of over fifty other countries originally under British rule. It is one of the great legal systems, and one whose basic principles provide the core of today's open and free societies (table 1.1). Yet the common law is also an enigma – seen as an engine of wealth maximisation and economic freedom but at the same time opaque and shrouded in ambiguity. It is in the eyes, even of many lawyers, incoherent, irrational and frequently 'unfair'. In this, some say, it shares many of the attributes of the marketplace.

This book applies economics to the common law. It has two objectives – to show how economics has and can be used to study law; and to undertake specific analyses of the common law of property, contract, tort and crime. It is an example of the general field known as 'the economic approach to law', or simply 'law and economics'. This is the application of economic theory and quantitative techniques to analyse the rules and remedies of the law.

The economic approach to law is not confined to areas of law which have economic objectives but to all areas of the common law and beyond to family, crime and procedural law and institutions, where the economic content is not apparent. In essence, the economic approach uses 'the principle of economic efficiency as an explanatory tool by which existing legal rules and decisions may be rationalised or comprehended'.[2] Clearly, the economic

[1] M. D. Kirby, 'Comparativism, Realism and the Economic Factor – Fleming's Legacies', in N. J. Mullany and A. M. Linden (eds.), *Torts Tomorrow: A Tribute to John Fleming*, North Ryde, NSW: LBC Information Services, 1998.

[2] J. L. Coleman, 'Efficiency, Exchange and Auction: Philosophical Aspects of the Economic Approach to Law', 68 *California Law Review*, 221–249 (1980) 221.

Table 1.1 *Common law countries*

Africa	Asia	Pacific rim	Caribbean	Europe	North America	South America
Botswana	Bangladesh	Australia	Anguilla	Cyprus	Canada	Falkland Islands
Ethiopia	Hong Kong	Fiji	Bahamas	Ireland	United States	Guyana
Ghana	India	New Zealand	Barbados	England		
Kenya	(Iran)	Papua New Guinea	Belize	Wales		
Lesotho	Israel	Samoa	Bermuda			
Malawi	Malaysia	Solomon Islands	British Virgin Islands			
Namibia	(Nepal)		Cayman Islands			
Nigeria	Pakistan		Dominica			
Sierra Leone	(Saudi Arabia)		Grenada			
South Africa	Singapore		Jamaica			
Tanzania	Sri Lanka		Montserrat			
Tonga	Thailand		St Kitts & Nevis			
Uganda	(United Arab Emirates		St Vincent & Grenadines			
Zambia	(Yemen)		Trinidad & Tobago			
(Zimbabwe)			Turks & Caicos Islands			

Note: Countries in brackets have mixed legal origins which include elements of the common law. In addition there are a number of smaller jurisdictions which have mixed legal systems with a strong common law element such as Jersey, and Guernsey (Norman/common law), Isle of Man and others

Source: World Bank, *Doing Business in 2004 – Understanding Regulation*, New York: Oxford University Press, 2004; T. H. Reynolds and A. A. Flores (eds.), *Foreign Law Current Sources and Legislation in Jurisdictions of the World*, Fred B. Rothman & Co., 1991.

approach will not be admissible in court, nor is it used or referred to by judges. However, it can assist in understanding and critically assessing the law. Instead of relying on judicial analysis and reasoning it offers the legal scholar an external framework which cuts through judges' linguistic formulations. Concepts such as choice, tradeoffs, incentive effects, **marginal analysis**, externalities, the **cheapest cost avoider** and others form the basis for each discussion of the law. It treats different areas of law in terms of the same functional categories, such as distinctions between care and activity levels, alternative and joint care, accidents between strangers and those occurring in situations where the parties have a pre-existing 'exchange' relationship. It provides a treatment of the common law which holds out the prospects of the unification of its disparate areas.

A SHORT HISTORY OF LAW AND ECONOMICS

Over the last four decades the economics of law has penetrated mainstream legal[3] and economics scholarship and has grown in scale, scope and depth. In the USA, where the subject was first developed, law and economics is now well established in most universities, and has recently spread across Europe and to civil law countries.[4]

The 'birth' of the modern law and economics movement can be dated around the early 1960s with the founding of the *Journal of Law and Economics* under the editorship of Aaron Director and then Ronald Coase.[5] Two articles during this period stand out as establishing the foundations of the economic approach to law – Ronald Coase's 'The Problem of Social Costs'[6] (hereafter, 'Social Costs'), and Guido Calabresi's 'Some Thoughts on Risk Distribution and the Law of Torts'.[7]

'Social Costs' is both the most cited and most misunderstood article in law and economics.[8] This is because it develops a number of themes.

[3] In the UK, see H. G. Beale, W. D. Bishop and M. P. Furmston, *Casebook on Contract*, 4th edn., London: Butterworths, 2001; B. A. Hepple and M. H. Matthews, *Casebook on Tort,* 3rd edn., London: Butterworths, 1985; D. Harris, D. Campbell and R. Halson, *Remedies in Contract and Tort*, 2nd edn., London: Butterworths, 2002; A. Clarke and P. Kohler, *Property Law – Commentary and Materials*, Cambridge: Cambridge University Press, 2005.

[4] Such as the Masters Programme in Law and Economics, involving participating universities of Bologna, Hamburg, Rotterdam Ghent, Hamburg, Aix-en-Provence, Haifa, Linköping/Stockholm, Madrid, Manchester and Vienna, see www.frg.eur.nl/rile/emle/universities/index.html. R. van den Bergh, 'The Growth of Law and Economics in Europe', 40 *European Economic Review*, 969–977 (1996).

[5] E. Kitch (ed.), 'The Fire of Truth: A Remembrance of Law and Economics at Chicago, 1932–1970', 26 *Journal of Law & Economics*, 163–234 (1983).

[6] 3 *Journal of Law & Economics*, 1–55 (1960). [7] 70 *Yale Law Journal*, 499–553 (1967).

[8] Coase's paper is the most cited paper in US law journals, outstripping the next most cited article by two to one. F. R. Shapiro, 'The Most-cited Law Review Articles Revisited', 71 *Chicago Kent Law Review*, 751–779 (1996).

To the economist, 'Social Costs' was an attack on **market failure** as a framework for policy analysis. Economists habitually then used, and still now use, the 'perfectly competitive market' as a benchmark to evaluate economic performance. Market failure was declared if there was any departure from the perfectly competitive market outcome, and the economist would, as almost a reflex action, recommend corrective government intervention. The problem was that this assumed that governments operated costlessly to promote a more efficient outcome. The absence in the economists' world of government failure clearly biased the analysis in favour of state intervention. To paraphrase one wag, only economists could be so naïve as to believe, let alone make practical policy recommendations based on the assumption that politicians and public servants were efficient. 'Social costs' stated that one had to take into account the costs, distortions and inefficiencies of laws and government before any policy conclusions could be drawn.

Coase's criticisms were, however, more profound. He noted that there was an implicit assumption at the heart of the textbook model of perfect competition – that of zero **transactions costs**. Under this assumption, markets simply could not fail – and, further, neither could capitalism, central planning, socialism and regulation. All were equally efficient. The economists' model provided no basis for selecting laws, or an economic system, or even to explain why firms exist or why capital hires labour and not the other way around.

Coase's conclusion was even stranger. He went on to show that irrespective of the legal position regarding harmful activities (more technically called external costs or effects) – such as pollution and road accidents – the law did not affect the efficient solution or market operation. This became known as the '**Coase Theorem**'. It states that in a world of zero transactions costs – where the costs of using the marketplace are negligible – the initial assignment of property rights does not affect the efficient allocation of resources. Thus whether or not the law holds a polluter liable for the harm, the efficient outcome would be generated by the gains from trade available to the parties, not the legal position. That is, market failure was not possible under conditions of perfect competition.

The Coase Theorem generated considerable controversy,[9] striking some as implausible, others as a tautology and many as irrelevant. But its central

[9] Stigler describes the initial reception to the Coase Theorem by twenty Chicago economists at a drinks party at Aaron Director's home: 'We strongly objected to this heresy . . . In the course of two hours of argument the vote went from twenty against and one for Coase to twenty–one for Coase. What an exhilarating event!' G. S. Stigler, *Memoirs of an Unregulated Economist*, New York: Basic Books, 1988.

message was initially misunderstood. It was not that law was irrelevant but that it was relevant to an economist because of the existence of positive transactions costs: a factor that economists had hitherto ignored. Coase went on to advocate the study of the world of positive transactions costs, not as many of his critics seemed to believe a perfect frictionless model. Coase's emphasis on transactions costs, a theme he had developed nearly three decades earlier in his analysis of the firm,[10] spawned a variety of economic approaches to institutional analysis such as the New Institutional Economics (NIE),[11] and related work on **principal–agent problems**, and incentive analysis.

Coase's 'Social costs' also attracted the interest of lawyers because it used the English and US laws of trespass and nuisance to illustrate the effects of legal rules when transactions costs were negligible, and when they were prohibitively high. To many, Coase appeared to argue that common law judges had a better grasp of economic theory (and reality) than most economists. The legal notion of reasonableness which runs through the common law was, suggested Coase, possibly a closet version of the economists' concept of **(Kaldor–Hicks) efficiency**. Thus at one level the Coase Theorem was interpreted as a market manifesto; at another that the common law had an underlying economic logic, a theme that would be picked up by later scholars. That Coase did not actually say nor mean either mattered little to the debate which subsequently raged.

In 1967 Guido Calabresi's article 'Some Thoughts on Risk Distribution and the Law of Torts'[12] was the first systematic attempt by a lawyer to examine the law of torts (essentially, accident law) from an economic perspective.[13] Calabresi, a professor at Yale Law School but who had economics training, argued that the goal of accident law should be to 'minimise the sum of the costs of accidents and the costs of preventing accidents'.

Calabresi refined this axiom into a normative theory of legal liability (tort) and public policy for accident losses: the costs of accidents could be minimised if the party who could avoid the accident at least cost was made liable for the loss – i.e. pay compensation. This Calabresi called

[10] R. H. Coase, 'The Theory of the Firm', 4 *Economica*, NS 386–405 (1937), reprinted in R. H. Coase, *The Firm, The Market, and The Law*, Chicago: University of Chicago Press, 1988.

[11] O. E. Williamson, 'The New Institutional Economics: Taking Stock, Looking Forward', 38 *Journal of Economic Literature*, 595–613 (2000); O. E. Williamson, *The Economic Institutions of Capitalism*, New York: Free Press, 1985; International Society for New Institutional Economics, www.isnie.org.

[12] 70 *Yale Law Journal*, 499–553 (1967).

[13] Mention should be made of P. S. Atiyah's *Accidents, Compensation and the Law*, London: Weidenfeld & Nicolson, 1970, which introduced the British law teacher and student to Calabresi's economics and was the first serious work by a British lawyer placing law in its wider social and economic context.

the 'cheapest cost avoider'.[14] His idea was simple, and easily illustrated. A careless driver collides with a pedestrian, inflicting expected damages totalling £200. It is discovered that the accident resulted from the driver's failure to fit new brakes costing £50. Clearly, road users and society as a whole would be better off by £150 if the driver had fitted new brakes: a sum equal to the avoided loss of £200 minus the cost of the new brakes, £50. If the driver is made legally liable for the loss – that is, she is required to pay the victim compensation of £200 should an accident occur – then she would have a strong incentive to fit the new brakes. A liability rule which shifted the loss whenever it encouraged careless drivers to fit new brakes would make the efficient solution the cheapest for the negligent motorist. The distinctive quality of Calabresi's work was to show the power of simple economic principles to rationalise a whole body of law, and to develop a coherent basis for its reform.

The fuse lit by Coase and fanned by Calabresi, ignited in US law schools with the work and views of Richard Posner in the 1970s. Beginning with his paper, 'A Theory of Negligence',[15] and refined in later articles and books, a new branch of the economic analysis of law was ushered in, one that the lawyer could use to analyse and rationalise the hotchpotch of doctrines which made up the common law. Posner's approach differed from Calabresi's normative analysis; his was a positive theory designed to 'explain' the common law. Posner advanced the radical and highly controversial thesis that the fundamental logic of the common law was economic; that its doctrines and remedies could be understood 'as if' judges decided cases to encourage a more efficient allocation of resources. If true, this would be a finding of great legal and empirical significance. The idea that economics could unlock the logic of the common law raised its profile among legal scholars, who were either attracted or repelled by the proposition.

Posner had shrewdly tapped into the primary reasons for the failure of economics to make inroads into legal scholarship – or, indeed, impress lawyers. It simply did not address the everyday questions that lawyers and law teachers dealt with. The question – Does tort deter accidents? – is of no importance to the law teacher, if the object is to explain and organise the court's decisions and reasoning. Put crudely, the lawyer and law teacher were apt to argue that if judges did not give economic reasons for their decisions, economic analysis of those decisions was not useful. It was

[14] G. Calabresi, *The Costs of Accidents: A Legal and Economic Analysis*, New Haven: Yale University Press, 1970.

[15] R. A. Posner, 'A Theory of Negligence', 1 *Journal of Legal Studies*, 28–96 (1972); W. M. Landes and R. A. Posner, *The Economic Structure of Tort Law*, Cambridge, MA: Harvard University Press, 1988.

clear that to introduce economics to law and lawyers it was necessary to show that it would help in understanding both legal doctrines and the law itself.

Posner not only brought the legal camels to water, but made them drink. His main contribution was to show that simple economic concepts could be used to analyse the law in the way that lawyers traditionally looked at their subject – that is to, 'explain' the rules and remedies of contract, property, criminal, family, commercial, constitutional, administrative and procedural laws. His text *Economic Analysis of Law*, first published in 1973 and now in its sixth edition, was and remains a *tour d'horizon* of the economics to law.[16] The view, which (now) Chief Judge Posner still firmly holds, is that:

> One of the major contributions of economic analysis to law has been simplification, enabling enhanced understanding. Economics is complex and difficult but it is less complicated than legal doctrine and it can serve to unify different areas of law. We shall demonstrate how economics brings out the deep commonality, as well as significant differences, among the various fields of . . . law . . . Economics can reduce a mind-boggling complex of statutes, amendments, and judicial decisions to coherence. By cutting away the dense underbrush of legal technicalities, economic analysis can also bring into sharp definition issues of policy that technicalities may conceal.[17]

Others were, and remain, unconvinced.

The 1970s and 1980s were the growth decades of the law and economics movement, at least in the USA.[18] Increasingly, North American legal scholars began to use economics to rationalise and appraise the law and by the 1980s the movement had firmly established itself as a respectable, albeit controversial, component of legal studies. In the USA many prominent scholars in the field (Bork, Breyer, Calabresi, Easterbrook, Posner and Scalia) were appointed judges, and economics – especially supply-side economics – was thrust to the forefront of the political agenda by reforming governments in both West and East.[19]

[16] R. A. Posner, *Economic Analysis of Law*, Boston: Little Brown, 1973; 6th edn., Gaithersburg, MD: Aspen Publishers, 2003.

[17] W. Landes and R. A. Posner *The Economic Structure of Intellectual Property Law*, Cambridge, MA: Harvard University Press, 2003, 10.

[18] W. M. Landes and R. A. Posner, 'The Influence of Economics of Law: A Quantitative Study', 36 *Journal of Law & Economics*, 385–424 (1993). This study finds that the influence of economics on US law was growing through the 1980s but that the rate of growth slowed after 1985.

[19] In March 1993 the *Journal of Economic Literature* published by the American Economics Association introduced 'Law and Economics' as a separate classification, formally recognising the field among economists.

LEGAL VS ECONOMIC REASONING

It will not surprise the reader to learn that lawyers and economists think in different ways. These differences explain both the resistance often encountered to the economics of law, and the contributions the latter can make.

The central difference between legal and economic reasoning is that lawyers look at the past, economists the future. This can be portrayed as a difference between the *ex post* analysis of lawyers concerned with rights, corrective justice and adjudicating disputes, and the *ex ante* or incentive analysis of economists. This distinction needs some explanation.

The lawyer typically begins with a dispute and a loss which has to be resolved. The approach is case by case and focuses on the distributive issue of how to (re)-allocate a given loss between the two or more parties to the dispute. Given this focus, and the professional skills that lawyers have to acquire, law tends to be seen through a narrow lens. There is no necessity to develop either a theory of law or a broad view of its social and/or economic effects. These are simply irrelevant to applying and to understanding the law. Moreover, the wider effects are not likely to be part of the lawyer's experience. If the law is successful in deterring wrongdoing, accidents or crime, it means that a legal dispute has been avoided. In short, successful laws mean less business for lawyers!

The economic approach differs from this practical process of applying law to cases. For the economist, the past is a 'sunk' cost. The economist does not view law as a set of rights and remedies but a system of incentives and constraints affecting future actions. As a consequence, the economists' primary focus is on the wider repercussions of the law on all potential litigants and individuals likely to find themselves in similar circumstances. To use Bruce Ackerman's description, the economic approach requires the lawyer to 'reconstruct the facts' to an earlier period before the dispute when the parties could have reorganised their activities.[20]

As an example, consider a careless driver who has knocked down and injured a pedestrian. The issue confronting the court involves a past event and a loss. This loss cannot, obviously, now be avoided, it can only be shifted by the judge. But the judicial shifting of losses has effects on future victims and injurers, either by altering their behaviour or their post-injury decision whether to litigate or settle the case out of court. Thus, while the lawyer will focus on the actions of the parties to an accident to allocate 'fault', the economist will examine the way that the court's decisions affect

[20] B. Ackerman, *Reconstructing American Law*, Cambridge, MA: Harvard University Press, 1984.

the accident rate, accident costs and the court's case-load. The economist is concerned with the effect that rules have on behaviour *before* the mishap.

THE COMMON LAW

It will strike the lawyer as odd, if not implausible, that economics can and indeed should be used to interpret law. This is particularly so since judges and the law rarely use economics or economic reasoning. It is almost unknown for an English judge today to draw on economics, although this was not unusual in cases in the nineteenth century.

One can understand that it may be useful to know as a policy matter what the effects, costs and benefits of different laws are and their alternatives, but not to interpret the law. The reason why this is possible and plausible lies in the nature of the common law – and, indeed, law itself.

Structure of the common law

Let us begin by describing the main features of common law adjudication.

First, it relies on private enforcement: that is, the parties to an accident or dispute must litigate their claims and fund the costs of litigation and out of court settlements.

Second, disputes are adjudicated by an independent judiciary in adversarial proceedings. The parties – known as the plaintiff but now called the claimant under recent reforms in England and Wales, and the defendant – must present their claim and defence, respectively, to the court. The burden of proof is placed on the claimant to establish that the alleged harm is on the balance of probabilities a legal wrong and it is for the defendant to counter these allegations. The proceedings are said to be adversarial, involving a legal 'contest' before a judge and contrast with most other European civil legal systems where the judge elicits the facts and questions the parties (known as an inquisitorial system).

Third, the common law offers a limited range of remedies which are confined to enforcing the parties' rights or compensating them for their losses. The typical remedy is compensatory damages, which aim to restore the claimant to the position he or she would have been in had the wrong not occurred. In more limited circumstances, the courts may offer an injunction to prohibit or force a party to do something or, in contract disputes, specific performance requiring the party to honour the contract. Courts cannot impose more general penal sanctions such as fines or

imprisonment, and can only rarely impose damages in excess of a genuine pre-estimate of the claimant's losses (except in contempt of court).

Fourth, the common law often denies those harmed a remedy. It is generally based on a fault liability or other judgmental standard governed by the conduct of both parties. The law also often provides the defendant with a number of defences or excuses which allow him or her to avoid paying compensation. This means that the common law does not operate as a general (universal) compensation or insurance scheme.

Finally, because of the costs and uncertainty of litigation, an overwhelming proportion of legal disputes and potential cases are settled out of court or abandoned. The proportion of cases coming to court that are meritorious probably numbers a few per cent. That is, litigation is a last resort – or, as is now often said, the common law encourages 'bargaining in the shadow of the law'.[21]

To the above features must be added the way law evolves in common law legal systems. Common law is often described as judge-made law. This is something judges would dispute since they regard themselves as discovering already existing law which they apply to new fact situations. Nonetheless, the common law has evolved over centuries through the decisions of judges in individual cases. These cases – or, rather, the legal precedents they set – create a body of law which must be distilled from the written decisions of judges and, when distilled, must be applied to new cases with different facts. It is, to use a contemporary term, 'bottom-up law' created in an evolutionary and practical way to resolve disputes. This contrasts again with the civil law systems of the rest of Europe, which are based on legal codes devised by governments.

It is also the case that common law judges rarely state general principles of law. Common law has been described as a system of law which places a particular value on dissension, obscurity and the tentative character of judicial utterances so 'that uniquely authentic statements of the rule . . . cannot be made'.[22] The linguistic formulations used by judges such as 'duty of care', 'reasonable foreseeability', 'proximity', and 'reasonable care' have a chameleon-like quality. They are frequently used interchangeably, confusing lawyer and judges alike. The result is that the general principles of English common law are open-ended. '[T]he conceptual

[21] The expression is from R. Mnookin and M. Kornhauser, 'Bargaining in the Shadow of the Law', 88 *Yale Law Journal*, 950–997 (1979).

[22] B. Simpson, 'The Common Law and Legal Theory', in W. Twining (ed.), *Legal Theory and Common Law*, London: Blackwell, 1986, 17.

structure of tort law' declared Patrick Atiyah, 'is a disorganised and ramshackle affair'.[23]

Further, there is no general agreement as to the objectives of the common law, and its specific branches. Among lawyers the common law is seen as having three often conflicting objectives – corrective justice, distributive justice (compensation) and deterrence. At a formalistic level there can be little dispute that the common law appears for the most part to be concerned with corrective justice – i.e. 'rendering to each person whatever redress is required because of the violation of his rights by others'.[24] But corrective justice is an empty shell since it lacks a definition of rights or wrongs, although it does stress that much of the common law is concerned with reinstating those wronged to their original position. Few would claim the common law seeks to redistribute wealth in society. Nonetheless, many legal scholars and reformers have sought to assess the law in terms of its ability to compensate accident victims and those 'wronged'. The view that the goal of the common law is compensation is a half-truth. While the routine remedy at common law is compensatory damages these are provided only when there has been a violation of an individual's rights. Thus, like corrective justice this begs the question of how the rights and wrongs are determined. Finally, deterrence is often discussed as a goal of the common law. This sees the law's primary function as influencing conduct and deterring avoidable accidents, interference with property, crimes and other harms. Most legal texts mention this objective only to dismiss it as unsupported in law, and unlikely in practice.

By now enough should have been said to establish the central point and basis of the economic approach. The 'murkiness' of the common law means that the objectives of various legal doctrines and remedies, and their application, must be distilled and interpreted from a myriad of decisions and judicial formulations which lack an overarching structure or a stated justification. It is this that has allowed economics to be used both to interpret and explain the law, and as an aid of organising material to teach it.[25]

This still leaves the question how the forward-looking incentive analysis of economics can be married with that of legal reasoning. The answer lies in

[23] P. S. Atiyah, *Accidents, Compensation, and the Law*, 3rd edn., London: Weidenfeld & Nicolson, 1980, 35–36.

[24] R. A. Epstein, 'Nuisance Law: Corrective Justice and its Utilitarian Constraints', 8 *Journal of Legal Studies*, 49–102 (1979) 50.

[25] Benson takes issue with this claim, arguing that the common law differs from customary law as a result of intervention of the King who set up a subsidised court system and forced dispute resolution into the Royal Courts. B. L. Benson, *The Enterprise of Law: Justice Without the State*, San Francisco, CA: Pacific Research Institute, 1990.

one of the accepted objectives of the common law – deterrence. Deterrence is essentially incentive analysis: it treats the law as deterring undesirable activities and encouraging beneficial activities. The only way this can occur is if law generates incentives for individuals, firms, lawyers and others which alter their behaviour.

In many areas, this model of law is plausible. Take one of the core concepts of the common law – fault liability. This is not treated in law as indicating moral culpability but as an objective standard of conduct based on the actions of the parties. One is 'at fault' if the care exercised falls below that regarded by the court as objectively required in the circumstances. That is, liability is tied to actions. In other areas where there is strict liability the link between actions and legal outcomes seems absent. But as will be shown, it is often consistent with the view that the law can be explained, as if it seeks to influence actions to promote more efficient outcome.

It is accepted that deterrence as a legal theory or even objective of law has fallen out of favour among lawyers and policy-makers. The general view is that laws do not deter. Admittedly the evidence is scant, and not enough research has been done to support a deterrence theory, with the exception of crime (see chapter 6). However, the positive theory of law has a somewhat more modest objective. It seeks to explain the law and doctrines, and uses those laws as the data and evidence. Whether these same laws actually deter torts, nuisances and inefficient contract breaches is a separate though closely related matter. This is why the literature often draws a distinction between descriptive and effects versions of the positive theory of law. The former attempts to show that the law does have a plausible efficiency rationale, the latter that law has the predicted deterrent effects which can be empirically identified and quantified.

Why would the common law be efficient?

Other questions quick off the lips of sceptics are: 'Why would the common law be efficient?' and 'What is the evidence?'

'Economic' views of the common law are not new or novel. Historians and legal scholars have claimed in different ways that the common law has been influenced by economic interests and power. Changes to the common law during the industrial revolution from strict to fault liability are claimed to have been driven by the need to protect a nascent industry from a crushing liability from claims from an army of injured workers and a public choking on the fumes and smoke belching from iron foundries. This is sometimes attributed to England's class structure or pressures from a

powerful capitalist elite influencing the law and opinions of judges. Others see the development of the common law in nineteen-century England as shaped by an intellectual elite influenced by the ideas of Scottish political philosophers and economists, such as Adam Smith and David Hume, who extolled the virtues of laissez faire and freedom of contract. The judgments, extra-judicial views of judges and the historical record provide strong support for this view in some areas of the common law.[26]

The modern law and economics literature offers several other, admittedly less than satisfactory, explanations why the common law might have an 'economic logic'.[27]

Richard Posner focuses on judges. He claims that common law adjudication (as described above) forces judges to restrict their attention to a narrow range of issues which are correlated with efficiency and wealth maximisation, and make it a poor method for large-scale wealth redistribution. Judges are required to reinstate wronged individuals and firms to their prior position in a process of case-by-case adjudication.[28] This necessarily implies acceptance of the pre-existing distribution of wealth and places a severe constraint on the use of the common law to redistribute wealth. This contrasts with the view of public or statute law which some of Posner's Chicago brethren see as largely focused on redistributing wealth. The central hypothesis of Stigler's 'capture theory'[29] and the economic theory of regulation[30] is that the primary 'product' transacted in the political marketplace is wealth transfers. The demand for legislation comes from cohesive coordinated groups, typically industry or special interest groups; the supply side of legislation is less easy to define given the nature of the political and legislative process. However, the state has a monopoly over one basic resource – the power legitimately to coerce. This leads to the view that because the legislative process is skewed to cohesive groups

[26] P. S. Atiyah, *The Rise and Fall of Freedom of Contract*, Oxford: Clarendon Press, 1979; D. Abraham, 'Liberty and Property: Lord Bramwell and the Political Economy of Liberal Jurisprudence – Individualism, Freedom, and Utility', 38 *American Journal of Legal History*, 288–321 (1994). For a sceptical view that the law transformed to redistribute wealth, see R. Epstein, 'The Social Consequences of Common Law Rules', 95 *Harvard Law Review*, 1717–1751 (1982).

[27] For a review of this literature, see P. H. Rubin, 'Why was the Common Law Efficient?', SSRN electronic library (2003).

[28] R. A. Posner, 'What do Judges Maximize?', in R. A. Posner, *Overcoming Law*, Cambridge, MA: Harvard University Press, 1995, chapter 3.

[29] G. J. Stigler, 'The Theory of Economic Regulation', 2 *Bell Journal of Economics & Management Science*, 3–21 (1971).

[30] R. Posner, 'Theories of Economic Regulation', 5 *Bell Journal of Economics & Management Science*, 22–50 (1974); S. Peltzman, 'Toward a More General Theory of Regulation', 19 *Journal of Law & Economics*, 211–240 (1976); G. Becker, 'A Theory of Competition among Pressure Groups for Political Influence', 98 *Quarterly Journal of Economics*, 371–400 (1983).

which can lobby effectively it tends overly to favour special interest groups. Indeed, this gave rise to a pessimistic assessment of the sustainability of a liberal and open society as politics and government became overwhelmed by special interest politics that undermined economic growth and social progress.[31]

Posner's evidence that wealth maximisation underlies the common law is his and others' findings that in a large number of areas common law doctrines can be explained 'as if' they are efficient. Others question the evidence used to establish the efficiency of specific rules.

A more rigorous economic literature has sought to link the development of the common law to the litigation/settlement process and the natural survival of efficient legal precedent. These so-called 'demand-side' models are driven by the motivations of individual litigants for more efficient law. The central hypothesis is that because inefficient laws by definition impose larger losses on the parties, they are litigated more often than efficient laws.[32] Thus even if judges are oblivious to economic efficiency as a legal goal they will have to adjudicate a disproportionate number of cases challenging inefficient laws, and over time the courts will tend to overturn inefficient laws more often than efficient laws. As a result the body of efficient precedent grows, even though at any one time a significant part of the law may be inefficient. That is, the efficiency of law evolves through a myriad of independent individual actions and not by design, as if – to use Adam Smith's metaphor – by some 'hidden hand'.

Subsequent work examining this hypothesis has found that not all roads lead to efficiency.[33] Indeed, the original model was a special case, and private litigation is just as likely to lead to inefficient as efficient law.[34]

Others have employed 'supply-side' models which focus on competition between different courts and other fora for the business of litigants. During the formative period of the common law in England, there was active

[31] M. Olson, *The Rise and Decline of Nations*, New Haven: Yale University Press, 1982.

[32] P. H. Rubin, 'Why is the Common Law Efficient?' 6 *Journal of Law & Economics*, 51–67 (1977).

[33] G. Priest, 'The Common Law Process and the Selection of Efficient Rules', 6 *Journal of Legal Studies*, 65–82 (1977); E. L. Priest, 'Selective Characteristics of Litigation', 9 *Journal of Legal Studies*, 399–421 (1980); W. M. Landes and R. A. Posner, 'Adjudication as a Private Good', 8 *Journal of Legal Studies*, 235–284 (1979); J. C. Goodman, 'An Economic Theory of the Evolution of Common Law', 7 *Journal of Legal Studies*, 393–406 (1979); R. Cooter and L. Kornhauser, 'Can Litigation Improve the Law without the Help of Judges?', 9 *Journal of Legal Studies*, 139–163 (1980); T. Eisenberg, 'Testing the Selection Effect: A New Theoretical Framework with Empirical Tests', 19 *Journal of Legal Studies*, 337–358 (1990).

[34] V. Fon and F. Parisi, 'Litigation and the Evolution of Legal Remedies: A Dynamic Model', 166 *Public Choice*, 419–433 (2003); K. Hylton, 'Information, Litigation, and Common Law Evolution', 8 *American Law & Economic Review*, 33–61 (2006).

competition between a large number of courts to attract litigants.[35] This competition occurred between civil and ecclesiastical courts and within civil courts between the Royal (King's Bench, Exchequer and Court of Common Pleas) and feudal, manorial, urban and mercantile law courts. All these vied for the business of litigants and their fees, and were free to adopt the remedies and rules of the others. Adam Smith in the *Wealth of Nations* (Book Five) offers one historical account:

> The fees of court seem originally to have been the principal support of the different courts of justice in England. Each court endeavoured to draw to itself as much business as it could, and was, upon that account willing to take cognisance of many suits which were not originally intended to fall under its jurisdiction. The Court of King's Bench, instituted for the trial of criminal causes only, took cognisance of civil suits; the plaintiff pretending that the defendant, in not doing him justice, had been guilty of some trespass or misdemeanour. The Court of Exchequer, instituted for levying of the king's revenue, and for enforcing the payment of such debts only as were due to the king, took cognisance of all other contract debts: the plaintiff alleging that he could not pay the king because the defendant would not pay him. In consequence of such fictions it came, in many cases, to depend altogether upon the parties before what court they would choose to have their cause tried; and each court endeavoured by superior despatch and impartiality, to draw to itself as many causes as it could. The present admirable constitution of the courts of justice in England was, perhaps, originally in great measure formed by this emulation which anciently took place between the respective judges; each judge endeavouring to give, in his own court, the speediest and most effectual remedy which the law would admit for every sort of injustice.

Zywicki[36] argues this created an incentive for each court to provide unbiased, accurate and quick dispute resolution, and the evolution of efficient law. Indeed, the adoption of the law of merchants (the Law Merchant) into the common law[37] was an important source of efficient law.

Another approach is to determine whether the common law has contributed to greater economic growth and wealth than other legal systems. Two major legal systems vie with each other across the world – the common law and the civil or code-based laws exemplified by France's Code Napoleonic. Hayek, for example, advanced the view that common law contributed to greater economic welfare because it was less interventionist

[35] H. Berman, *Law and Revolution: The Formation of the Western Legal Tradition*, Cambridge, MA: Harvard University Press, 1983.

[36] T. Zywicki, 'The Rise and Fall of Efficiency in the Common Law: A Supply-Side Analysis', 97 *Northwestern University Law Review*, 1151–1633 (2003).

[37] B. Benson, 'The Spontaneous Evolution of Commercial Law', 55 *Southern Economic Journal*, 644–661 (1989).

and better able to respond to changes than civil legal systems.[38] Tullock, on the other hand, has argued that the common law method of adjudication is inherently inferior to the continental European civil law system.[39]

Beginning with the work of Barro[40] and Scully[41] there have been a number of empirical studies of the impact of common and civil law (and other) legal systems on economic growth. These have found that, after controlling for other factors, economic growth has been greater in common than in civil law countries.[42] Scully identifies fifty-four countries with common law and ninety-four countries with civil or code-based legal systems.[43] His statistical analysis found that common law countries gave much greater protection of civil liberties than civil law countries, and that in politically open societies real *per capita* income grew at an annual compound rate of 2.5 per cent compared to 1.4 per cent for politically closed societies. According to Scully, 'societies where freedom is restricted are less than half as efficient in converting resources into gross domestic product as free societies. Alternatively, more than twice the standard of living could be obtained with these same resource endowments in these societies, if liberty prevailed.'[44]

Mahoney[45] studied the legal systems of 102 non-socialist countries over the period 1960–92. His empirical research found that economies in countries with common law legal systems grew 0.71 per cent (or one-third) faster, and the standard of living measured by real *per capita* income was 20 per cent greater than countries with civil law legal systems. Mahoney attributes the higher economic performance to a better-quality judiciary, as

[38] F. A. Hayek, *Law, Legislation, and Liberty: Rules and Order*, London: Routledge, 1973.

[39] G. Tullock, *Trials on Trial – The Pure Theory of Legal Procedure*, New York: Columbia University Press, 1980; G. Tullock, *The Case against the Common Law*, Durham, NC: Carolina Academic Press, 1997, reprinted in C. K. Rowley (ed.), *Law and Economics – The selected works of Gordon Tullock, Vol. 9*, Indianapolis: Liberty Fund, 2005.

[40] R. Barro, 'Economic Growth in a Cross Section of Countries', 106 *Quarterly Journal of Economics*, 407–443 (1991); R. Barro, *Determinants of Economic Growth: A Cross Country Study*, Cambridge, MA: MIT Press, 1997.

[41] G. Scully, *Constitutional Environments and Economic Growth*. Princeton, NJ: Princeton University Press, 1992. Other important recent contributions include Barro, *Determinants of Economic Growth*; R. Hall and C. Jones, 'Why do Some Countries Produce so Much More Output per Worker than Others?', 114 *Quarterly Journal of Economics*, 83–116 (1999); S. Knack and P. Keefer, 'Does Social Capital have an Economic Payoff? A Cross-Country Investigation', 112 *Quarterly Journal of Economics*, 1251–1288 (1997).

[42] There are other studies which show that property rights, markets and the rule of law contribute to higher economic growth: D. North and R. Thomas, *The Rise of the Western World: A New Economic History*, Cambridge: Cambridge University Press, 1973; N. Rosenberg and L. Birdzell, *How the West Grew Rich: The Economic Transformation of the Western World*, New York: Basic Books, 1986.

[43] Scully, *Constitutional Environments*.

[44] Scully, *Constitutional Environments*, 179.

[45] P. Mahoney, 'The Common Law and Economic Growth: Hayek Might be Right', 30 *Journal of Legal Studies*, 503–523 (2001).

measured by their integrity and efficiency, and greater security of property and contract rights in common law nations.

Other empirical research finds that common law systems are more efficient in governing finance markets,[46] more efficient in settling disputes[47] and have less interventionist laws which promote economic growth.[48] For example Djankov *et al.*'s study of the court procedures required to evict a tenant for non-payment of rent and to collect a bounced cheque in 109 countries found that the procedures were more formal and complex in civil law than in common law countries – judicial decisions took longer, were less consistent, honest and fair and there was more corruption.

This research gives some empirical credence to the view that while the common law may not maximise wealth it produces more wealth (efficiency) than other legal systems.

FURTHER TOPICS AND READING

- For an overview of the economics of law, regulation and competition, see C. G. Veljanovski, *The Economics of Law*, 2nd edn., London: Institute of Economic Affairs, 2006. Other accessible texts written for lawyers and non-economists but with US orientation are R. A. Posner, *Economic Analysis of Law*, 6th edn., Gauthersburg, MD: Aspen Publishers, 2003; D. Friedman, *Law's Order – What Economics Has to do with the Law and Why it Matters*, Princeton: Princeton University Press, 2000. More technical books with wider coverage include R. T. Cooter and T. S. Ulen, *Law and Economics*, 4th edn., New York: Pearson Addison Wesley, 2004; S. Shavell, *Foundations of Economic Analysis of Law*, Cambridge, MA: Harvard University Press, 2005. See also L. Kaplow and S. Shavell, 'Economic Analysis of Law', in A. J. Auerback and M. Feldstein (eds.), *Handbook of Public Economics*, vol. 3, New York: Elsevier, 2002, chapter 25.
- Very useful sources of discussion and reference on specific topics are found in two dictionaries of law and economics: P. Newman (ed.), *The New Palgrave Dictionary of Economics and the Law* (3 vols.), London: Stockton Press, 1998; and B. Bouckaert and G. De Geest (eds.), *Encyclopedia of Law and Economics*, Cheltenham: Edward Elgar, 2000, http://encyclo.findlaw.com/index.html. For an extensive list of texts and other works together with specialist journals, see the Select bibliography at the end of the book. There are also a number of web sites dedicated to law and economics, e.g. http://lawecon.lp.findlaw.com/.
- The first positive theory of the common law was advanced by US Judge Oliver Wendell Holmes, who stated: 'When we study the law we are not studying a

[46] R. La Porta, F. López-de-Silanes, A. Shleifer and R. Vishny, 'Law and Finance', 106 *Journal of Political Economy*, 1113–1155 (1998).

[47] S. Djankov, R. La Porta, F. López-de-Silanes and A. Shleifer, 'Courts', 118 *Quarterly Journal of Economics*, 453–513 (2003).

[48] *Doing Business in 2004 – Understanding Regulation*, New York: Oxford University Press, 2004.

mystery . . . the object of our study . . . is prediction.' O. W. Holmes, 'The Path of the Law', 10 *Harvard Law Review*, 457–478 (1897). Atiyah has suggested that English lawyers do not take a similar theoretical and social science approach to US lawyers because England never had a judge like Holmes. P. S. Atiyah, 'The Legacy of Holmes through English Eyes', 63 *Boston University Law Review*, 341–362 (1983). However, the differences are best explained by two other factors – first, in contrast to the USA, it is rare for academic lawyers to be appointed as judges in the UK. Second, law is an undergraduate degree in the UK whereas in the USA, Canada and Australia it is a postgraduate degree. The latter means that most law students have a strong grounding in another discipline such as economics. K. G. Dau-Schmidt and C. L. Brun, 'Lost in Translation: The Economic Analysis of Law in the United States and Europe', 44 *Columbia Journal of Transnational Law*, 602–621 (2006).

- There is a mountain of critical reviews and 'attacks' on the economics of law. One of the most thoughtful and entertaining is A. A. Leff, 'Economic Analysis of Law – Some Realism about Nominalism', 60 *Virginia Law Review*, 451–482 (1974). The main arguments and thrust of the early criticism are discussed in C. G. Veljanovski, 'The Role of Economics in the Common Law', 7 *Research in Law & Economics*, 41–64 (1985) and the less critical C. G. Veljanovski, 'Economic Theorising about Tort', *Current Legal Problems*, 117–140 (1985).
- The economics of law is not confined to the common law. There is a growing literature on and interest in applying economics to the civil law. U. Mattei, *Comparative Law and Economics*, Ann Arbor: University of Michigan Press, 1997; T. Kirat and B. Delfains (eds.), *Law and Economics in Civil Countries*, London: Taylor & Francis, 2003.
- A topic not given separate treatment here is the economics of the legal process and in particular litigation and out-of-court settlement. There is a large theoretical and empirical literature on the effects of legal fees on litigation rates and settlement sums, the way litigation affects legal rules and so on. R. D. Cooter and D. L. Rubinfeld, 'Economic Analysis of Legal Disputes and Their Resolution', 27 *Journal of Economic Literature*, 1067–1097 (1988). For an interesting comparative treatment of common and civil law legal procedures, see G. Tullock, *Trials on Trial – The Pure Theory of Legal Procedure*, New York: Columbia University Press, 1980.
- Does economics reveal the fundamental unity of the common law of contract, tort, property and crime? Some believe that simple economics has done so. Posner, *Economic Analysis of Law*, chapter 24; R. Cooter, 'Unity in Contract, Tort and Property: A Model of Precaution', 73 *California Law Review*, 1–45 (1985); W. D. Bishop, 'The Contract–Tort Boundary and the Economics of Insurance', 12 *Journal of Legal Studies*, 241–266 (1983).

CHAPTER 2

The economic approach

> Incentives are the essence of economics.[1]
>
> Edward Lazaar, 1998

> The purpose of studying economics is . . . to learn how to avoid being deceived by economists.
>
> Joan Robinson, 1955

Economics, declared John Maynard Keynes over half a century ago, does not offer a body of furnished conclusions, but an approach; a way of thinking about a problem. Its approach centres on choice, trade-offs, consequences, incentive effects, costs and benefits. As such, economics offers a different and external perspective on legal problems which can shed new insights, reveal new relationships and perhaps explain more clearly the law and its effects. The basic economics useful for legal analysis is set out in this chapter.

CHOICE AND SCARCITY

The economic approach to law can be defined as the application of economic theory – mostly price theory and statistical methods – to examine the formation, structure, processes and impact of the law and legal institutions.[2] It employs the same economics used to study the market for beans and steel to analyse law and institutions. This is known as price theory, the study of the interaction and behaviour of individual units in the economy – the firm, the consumer and the worker.

At the heart of price theory are the concepts of scarcity and choice. Without scarcity there would be no need to make choices since in a world of

[1] E. P. Lazaar, 'Incentive Contracts', in J. Eatwell, *et al.* (eds.), *The New Palgrave – A Dictionary of Economics*, *vol. 2*, London: Macmillan, 1998, 744–748.

[2] C. G. Veljanovski, *The New Law-and-Economics – A Research Review*, Oxford: Oxford Centre for Socio-Legal Studies, 1982; C. G. Veljanovski, *The Economics of Law*, 2nd edn., London: Institute of Economic Affairs, 2006.

inexhaustible abundance we would simply take what we wanted. Scarcity, whether in rationing the law or allocating resources, involves choice. Economics is the study of the choices of individuals in their roles as judges, people at risk, litigants and lawyers make in response to harms, to the law and other factors such as costs, income and so on.

Economic rationality

When faced with a choice, individuals and companies must have a basis for selecting between alternatives and how much of each alternative to consume or produce. Economists assume that individuals and organisations do this in a rational way. This is not only a workable assumption but also a necessary one if law is to guide behaviour and actions in a predictable way.[3]

The concept of **economic rationality** has a specific but simple meaning in economics. It means little more than that people prefer more to less and maximise net benefits, whether utility, wealth, or profits, as perceived by them.[4] This theory of rational choice is based on several assumptions – substitutability, marginality and fixed tastes and preferences:

- **Substitutability** Goods are assumed substitutable for one another (or for money) at the margin. That is, there is a rate of exchange (price) between any pair of goods that will make an individual indifferent between them. This notion of a *trade-off* is central to economic reasoning.
- **Marginality or equi-marginal principle** Maximising implies equalising marginal values and diminishing marginal returns – i.e. the *equi-marginal principle.* In any activity, to obtain the maximum utility or profit from the available resources they must be allocated so that the marginal benefit from the last unit of a resource devoted to each use is equal to its marginal costs. The maximisation principle thus not only requires that benefits exceed costs for each activity but that the level of each activity be at a point where the marginal costs of expanding the activity are equal to the marginal benefits. To illustrate the importance of marginal analysis consider the debate over whether more migrant workers benefit an economy and what is the optimal number. The debate typically proceeds

[3] Recent research suggests that *homo sapiens* displaced Neanderthal man because of their superior economic approach. This suggests that economic rationality may not only be in our genetic makeup but the very reason for our existence. R. D. Horan, E. Bulte and J. F. Shogren, 'How Trade Saved Humanity from Biological Exclusion: An Economic Theory of Neanderthal Extinction', 58 *Journal of Economic Behavior & Organization*, 1–29 (2005).

[4] The choices must also be *consistent or transitive* – i.e. if x is preferred to y, and y to z, then x will be preferred to z.

by claiming that on average migrant workers contribute more than they cost in terms of public services and pressure on a country's infrastructure. However, the correct (marginal) analysis is not to compare average contribution with average costs, as this gives the wrong answer. Suppose the first 100 migrants are bankers and entrepreneurs who each contribute £1 million annually while the last 5,000 migrants are unskilled manual workers contributing only £1,000 annually. If the average cost of supporting migrants is £20,000 annually, then using average figures (which in this case gives £21,000) indicates that migrants are net contributors. However, the truth of the matter is that that they are not because the high earners have distorted the figures and the last 5,000 migrants in fact are causing net losses. The optimal level of migration is not 5,100 migrants annually but only the first 100 migrants. As this shows, the *optimal* level of an activity which yields maximum net benefits is determined by comparing *marginal* costs and benefits, and not average costs and benefits.

- **Fixed tastes and preferences** The tastes and preferences of individuals are assumed to be given and stable. This assumption is related to, and implied by, rational behaviour. If tastes change over time or with past choices, preferences may not be consistent. For positive economics (what is), the assumption of given tastes prevents the economist from rationalising inconsistencies between theory and evidence by ad hoc claims that tastes have changed. For normative economics (what should be), changing tastes would render measures of economic welfare unreliable indicators of changes in individual wellbeing. For example, if tastes are constant one can say that a fall in the price of a good improves the economic welfare of consumers of that good. However, if at the same time consumers' tastes alter so that they come to regard the good as less desirable, it would not be possible to make such a statement.

The assumption of economic rationality is not without its critics. Indeed a whole field of behavioural economics, and behavioural law and economics, has dispensed with the assumption and investigated the implications of the cognitive limits to, and biases of, individual decision-making. This approach is not adopted here for the simple reason that if economic rationality is abandoned then economics loses much of its predictive and explanatory power and can easily collapse into a descriptive approach less likely to produce genuine insights.

The view adopted here is that the economists' assumption of rationality is best regarded not as a description of individual decision-making but as a way of identifying the predictable response of a group of individuals