Journal of Management History

Historical origins and development of economic rationalism

Donald K. Gates Peter Steane

Historical origins and development of economic rationalism

Donald K. Gates
Macquarie University, Sydney, Australia, and
Peter Steane
Graduate College of Management, Southern Cross University, Tweed Heads, Australia

Abstract

Purpose – The purpose of this paper is to trace the development of economic theory to the point where "economic rationalism" is a commonly used term.

Design/methodology/approach – The paper draws on earlier research and published works examining: the history of economics; economic rationalism; and the different influences in comprising basic economic concepts.

Findings – The analysis of writing indicates that rationalism has been a focus of discussion in economic writing since Classical times, through to the "rational" influence in economic policy making from neoclassical economic writing. But, the specific term "economic rationalism" gained wider usage after Pusey's book. From that time, the term was used outside academia as a disparaging means to criticise economic theorists and policy makers.

Research limitations/implications – The research is limited by the ability to examine all the literature in the field in greater depth. However, this has been ameliorated by examining a sufficient sample of literature relevant to the concept of rationality in economic theory and policy.

Practical implications – This paper provides a useful critique – from the classics to the modern era – of the contribution made to economic theory and practice. It provides managers with a comprehensive historical overview.

Originality/value – This paper fulfils an identified need and gives support to executives and managers who have doubts about theological justification for some values and accountability procedures being employed in policymaking.

Keywords Economic history, Economic theory

Paper type General review

Introduction

> [Economic rationalism's] generative axiom is that the free market should determine all economic transactions. A prosperous economy depends on efficiency, and the greatest efficiency occurs when open competition in a free market determines outcomes (Carroll, 1992, p. 9).

Despite what Adam Smith had to say, about the necessity of helping the needy in society, the parentage of economic thinking known as "classical economics" or "laissez faire" has been traced back to his 1776 classic, *The Wealth of Nations*. The majority of modern academic economists, including Milton Friedman and Friedrich Hayek, have supported the more recent conceptual position known (in Australia) as "Economic Rationalism" (Carroll, 1992, p. 7). The use of the reference to rationality, in respect to economic policy and practice, has expressed a belief that economic decision making

Journal of Management History
Vol. 13 No. 4, 2007
pp. 330-358

1751-1348
DOI 10.1108/17511340710819589

needs to be "rational" utilizing what philosophers have proposed as involving reason and reliability (Nozick, 1993, p. 64).

As "economic rationalism" is an approach to economic decision making, the word "rational" does not mean what many people assume viz sane, sensible, not foolish, absurd or extreme. Rather, the word "rational" in economic rationalism, originated from philosophy with the meaning "guided by reason as opposed to emotions" (Strachan, 1998). The term "economic rationalisation" became an Australian dictionary term in the early 1970s, situated in history and linked to policy: "the term 'economically rational' was applied to a group within the Labor Party, including Whitlam himself, which opposed protective tariffs and agricultural price support schemes" (Quiggin, 1997a, b, pp. 3-12).

This paper is concerned with tracing the development of economic theory up till the point where the term "economic rationalism" became a household name. At each stage of the development, factors leading to changes in economic theory are examined and further developments in economic theory and leading protagonists and antagonists are identified. The examination commences in the Grecian period, traverses the "middle ages" until the time of the "Enlightenment" and then into the modern period. The paper embraces a number of economic systems including, Mercantilism, classical economics, the Marginalist Revolution and the rise of neoclassical economic theory that enable policymakers to "rationalize" their responses to economic problems. The institution of schools of neoclassical economic thought, such as Menger's Austrian School, Walras' Lausanne School, the Cambridge School and the "Jevonians" is reported and their impact identified.

The advance of neoclassical liberalism was subjected to great pressure during the Great Depression and the World War II this led to reliance on macroeconomic theory as explained by John Maynard Keynes. By the end of the golden age of economics, policymakers began to adopt liberal ideologies as espoused by theorists such as Friedrich Hayek. This led to the period when academics and social scientists started to use the term "economic rationalism" and it became a household term in Australia in the 1990s. An economic time line has been developed and placed in the appendix of this paper.

Early economists and economic theory

The honour of being the earliest Greek economist has been attributed to Xenophon "because he was one of the first authors [displaying] an interest in the domestic economy. [He paid] particular attention to the sexual division of labour and the notion of private profit" (Hunter, 1996, p. 185; Pomeroy, 1994, pp. 42, 46). Xenophon was a student of Socrates and born in Athens in about 431 BC. He was over 80-years old when he died about 355 BC. In his book *The Economist* (*Oeconomicus*), he reports a talk between Socrates and Critobulus and another Socratean recollection of Ischomachus' discussion on the topic of "profitable estate management" (Xenophon (c400BC), 2007). Aristotle (384-322 BC), whilst analysing the commercial buying and selling and other economic activities of his day, endeavoured to portray the "place of economy in society".

The middle ages – AD 476-1453

The term "Middle Ages" refers to the period in European history between the fall of Rome and the renaissance commonly dated from AD 476 to 1453. After 1000 AD, the main political system was known as “Feudalism” characterised in England with (King) William’s rebellious serfs and the care of land. In the creation of the “Feudal” system William, granted land to his most important nobles, barons and bishops in return for services and loyalty. The “serfs” and lower class of peasants were forced to work the land and offered protection by the Lord of that land in return for service.

Feudal organization was based on a system of contract and many kinds of political organization and social intercourse are derived from such feudal contractual origins. A person’s status was related to his position on the land. In England, such land was held by “tenants-in-chief” who were nominated by the king. In other West-European countries, where no wholesale conquest had occurred, the arrangements were diverse and convoluted. However, it was the system of feudal land-tenure formed the basis of every West-European country in general terms (Vinogradoff, 1924).

It was during this period that Aquinas (1225-1274), through his *Summa Theologica*, was able to incorporate the philosophy of the Greek world into the framework of the philosophical wisdom of the European Renaissance. The Catholic Church incorporated this work into its official dogma. In Part II of *Summa*, Aquinas, 1955 Aquinas contributed to the development of economic thought in discussions on “property, ‘just’ price, money and condemnation of usury”.

During the period up till 1500, the church guided the way in which economic transactions took place. Tawney advises that in 1500 typical decision making was infinitely linked to faith and church guidance:

> The typical economic systems [were] those of the Schoolmen; the typical popular teaching [was] that of the sermon, or of manuals such as Dives et Pauper; the typical appeal in difficult cases of conscience[was] to the Bible, the Fathers, the canon law and its interpreters; the typical controversy [was] carried on in terms of morality and religion (Tawney, 1938, p. 19; Coleman and Hagger, 2001, p. 8).

Thus, for about a thousand years, the church’s teachings, on moral and social issues were adopted, in the main, by rulers and servants alike. The second-half period of five-hundred years was stable under the contractual feudal system and there were no significant attempts to propose new economic theories.

Changes in economic thought after 1500 – the early modern period

According to Tawney (1938, p.18) the two centuries from 1500 to 1700 saw the “emergence of an objective and passionless economic science” (Coleman and Hagger, 2001, p. 8). During this early modern period (sixteenth to eighteenth centuries) the prevailing economic theory was known a “Mercantilism”. This theory considered that a nation’s prosperity was dependent on its supply of capital and its relationship to an unchangeable global volume of trade. As “capital” was measured in terms of the “bullion” (gold, silver and value of trade) held by the state, increases in the extent of it were best accomplished through the maintenance of a positive “balance of trade” with other nations. Mercantilism (or the mercantile system) implied that ruling governments could achieve such a goal by adopting the protectionist role that entailed encouraging exports and discouraging imports (Wikipedia Contributors, 2007g).

The measurement of economic growth during the Mercantilist period entailed measuring increases in the total circulation of stock, such as silver and gold, that was under the control of the state. The end result of this “Bullionist” theory was the enactment of policies that forced "trade through a particular state, the acquisition of colonies to supply cheaper raw materials which could be manufactured and sold" (Wikipedia Contributors, 2007i). Bullionists of this period include Thomas Milles (1550-1627) and the merchant, Gerald De Malynes (1586-1641), who advocated increasing exports to ensure a surplus of trade. De Malynes regarded foreign currency as a trade of value and warned about undervaluing monies used in exchange:

> First, moneys being undervalued in exchange, causeth the price of our home Commodities to be abated, and to bee sold better cheape in forraine parts, and is also the cause that our moneys are continually Transported.
>
> Secondly, the moneys being Transported, taketh away the lively course of Traffique of our said Commodities, and causeth young merchants to Runne by exchanges upon Bills to maintaine their Trade, paying great Interest for money, which they cannot take up at Use upon their single Bond, as they can doe by a Bill of exchange, without Sureties.
>
> This causeth the said young Merchants and others to make rash Sales of their Commodities beyond the Seas, to pay their Bills of exchanges, whereby they overthrow the Markets of others, and make them to Sell good cheape (De Malynes, 1622, p. 11).

It was during this period that, some claim, a form of protectionist legislation, known as "Corn Laws" first appeared on the English Statute Books and remained there from 1639 to 1846 (Wikipedia Contributors, 2007h). However, because others, such as Bloy (2004), considered them to be an aftermath of the Napoleonic Wars, this paper locates the discussion of these to the first-half of the nineteenth century.

By the end of the early modern period in 1700, a "new science of Political Arithmetic" had replaced Christian economic value systems that linked economic transactions to a moral rule. Tawney (1938/1926, p. 19) indicates that this new science "handles economic phenomena, not as a casuist, concerned to distinguish right from wrong, but as a scientist, applying a new calculus to impersonal economic forces" (Coleman and Hagger, 2001, p. 8). In the next period, this new science is developed and the impact of Mercantilism is diminished.

The "Mid Modern" period – 1700-1871 AD

The eighteenth and nineteenth centuries saw the origin and rise of economic theory as we know it today. Many Scottish and English "classical" economists developed economic theories between the time Adam Smith was born in 1723, and the death of John Stuart Mill in 1873. These included: Adam Smith (1723-1790), Jeremy Bentham (1748-1832), Thomas Robert Malthus (1766-1834), David Ricardo (1772-1823), James Mill (1773-1836), Robert Torrens (1780-1864), John Ramsay McCulloch (1789-1864), Nassau William Senior (1790-1864), and John Stuart Mill (1806-1873). Of these, Adam Smith is the mentor and John Stuart Mill the "eloquent voice of liberalism in transition" (Hollander, 1982).

The development of "classical Economics" – Richard Cantillon

Thornton (2007) claims that economic theory's historical origins can be traced to Richard Cantillon (1680-1734), an Irish banker who emigrated to France. Rothbard (1995) also nominates Cantillon as "the founding father of modern economics" (Thornton, 2007). He was grouped by Higgs (1892, p. 427) with Adam Smith, Steuart, Mirabeau Quesnay, Petty, Montchrétien, Sierra, and Sully with the paternal group of economic thinkers (Hayek, 1931b; Liggio, 1980; Salerno, 1985; Spengler, 1954; Tarascio, 1985).

Cantillon wrote the first general treatise on economics, *Essay on the Nature of Commerce* in 1730. Cantillon's (1931) publication in French, *Essai su la Nature du Commerce en Général'* (Cantillon, 1931), arguably possesses a theory of value that is superior to other theories of economists in the second-half of the nineteenth century (Jevons, 1881). Cantillon proposed that the value of items such as Brussels' lace or the balance spring of an English watch had their value determined by the labour to produce them. Likewise, the value of Seine water was not only dependent on the price of the water but also on the price of taking it into the streets of Paris (Jevons, 1881, p. 69). Jevons (1881, p. 69) cited Cantillon who wrote:

> By these inductions and examples, I think we can understand that the price or the intrinsic value of a thing is the measure of the quantity of land and of labour which enter into its production, regard being had to the goodness or productiveness of the land, and to the quality of the labour.

Cantillon's theories were part of a long line of economic thought that extended from the fifteenth century to the modern era. As well as Cantillon's economic theories other economists, such as David Hulme, Adam Smith, Jean-Baptiste Say and David Ricardo, received favourable support from the Austrian School that evolved in the second half of the nineteenth century. But, as Thornton (2007) states, it was Cantillon's *Essai* that influenced the development of classical economics and François Quesnay's French group of Enlightenment thinkers, of the 1760s, known as the Physiocrats. The Physiocratic doctrine was based on Quesnay's (1759, 1766) axiom that only agriculture produced a surplus. As they believed that a nation's wealth was not dependent on its silver and gold stocks but upon the extent of its net product the Physiocrats were a challenge to the Mercantilists. Cantillon was one of the few people mentioned by Adam Smith in the *Wealth of Nations*, but was misrepresented by Smith, resulting in a period of classical economics that followed where there was not much regard for Cantillon or the *Essai*.

The development of "classical economics" – Adam Smith

Despite Rothbard's (1995) claim that the modern history of economics did not commence with Adam Smith, but properly began with the physiocrats, Smith's (1976/1776) *The Wealth of Nations* is generally regarded as the beginning of classical economics. Through the publication of Smith's work came credit for the establishment of the first modern school of economic thought. As well as Adam Smith, this school included David Ricardo, Thomas Malthus and John Stuart Mill (Wikipedia Contributors, 2007d). The "Smithian Revolution" was an attack on Mercantilism and it changed preexisting understandings of the sources of wealth of nations and what was required to promote the growth of "affluence" (Johnson, 1971, p. 1).

Kilcullen (1996) explains that Smith's book, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Smith, 1976), is really five books dealing with: productive powers of nature, the gradual accumulation of capital stock, the relationship of labour productivity to the development of European towns and long-distance trade, theories of political economy, and finally "the revenue of the sovereign". The main argument of the book is to be found in Book 4, where wealth is linked to the division of labour, stock accumulation and profitability. In two of his writings, Smith mentions the "invisible hand". In reference to the invisible hand of God, Adam Smith implies that in the divine design people will generally pursue their own self-interests without thinking about the macro. However, he does not show that individuals pursuing their own self interests will achieve better outcomes than the coordinated actions of government (Kilcullen, 1996). Adam Smith died in 1790.

The development of "classical economics" – Jean-Baptiste Say

Jean-Baptiste Say published his *Treatise on Political Economy* in 1803. In this work, he referred to theories that were promoted by other economists of his period (Steiner, 1999). For instance, Say's approach was taken from two sources: Adam Smith's cost theory of supply and the utility theory of demand as expounded by Etienne Bonnot de Condillac, whose major work, *La Commerce et le Gouvernement Considérés realtivement l'un à l'autre* was published in 1776. In the *Treatise,* Say outlined his "law of markets" stating that the total demand in an economy must equal the total supply. James Mill restated this as "supply creates its own demand". Say (1803, pp. 153, 178-9) stated it as:

> Products are paid for with products . . . [or] a glut can take place only when there are too many means of production applied to one kind of product and not to another.

Barriers to trade

Say wrote his *Treatise* in the midst of the Napoleonic Wars (1793-1815). This war brought the introduction of the Continental System that was Napoleon's attempt to stop Britain's export and re-export trade with Europe and it was outlined in two Decrees issued by the Emperor. These were the Berlin Decrees of 1806 that effectively blocked vessels coming directly from any country under British control accessing ports under French control. This was extended through the Milan Decrees of 1807 that prevented access via the Baltic and Adriatic Seas. Although this was a hindrance to free trade it did provide British farmers with a virtual monopoly on domestic markets (Bloy, 2004).

The British "Corn Laws"

In Britain, where wheat was referred to as corn, Malthus (1814) reported that the bullion price of corn for the five years from 1804 to 1808 (inclusive) was about 75 shillings a quarter. Even at this price, it was more profitable to import some of the domestic requirements than to bring sufficient land into production to fulfill domestic demand (Malthus, 1814, p. 11). Malthus argued for a price reduction to 45 or 50 shillings to enable price parity with imported corn. As the price of corn affected the price of labour, these price reductions could improve agricultural supplies even to the extent of restoration to the existing situation.

The effect of the blockade on Britain as a result of the Continental System meant the creation of an artificial scarcity of foodstuffs and together with some bad British harvest and trade cycle fluctuations led to rapidly rising inflation. Bloy (2004) indicates that corn prices almost halved after the end of the French Wars and farmers became agitated. Many of these farmers were voters. Lord Liverpool's government introduced protectionist legislation termed the "Corn Laws" in 1815. However, these import tariffs had a detrimental effect on an increasing manufacturing industry and this resulted in the Manchester School of free traders increasing in strength in the 1820s. Despite the upturn in the economy between 1822 and 1828, the economy nevertheless entered a depressed state in the 1830s. The 1832 Reform Act enfranchised much of the middle class and this enabled political unions and the Catholic Association to pressurize parliament. The commencement of the railways in this period started a second industrial revolution. The potential of the railways was undermined by the imposition of tariffs. Increases in the volume of industry called for increased capital to be put into railways and for free trade to motivate people to provide this capital and utilize the railways. The Anti-Corn Law Association comprising mainly middle-class manufacturers, merchants and bankers was established (in 1836 or 1838) to lobby for the repeal of the Corn Laws, which was eventually gained in 1846 during Sir Robert Peel's Government.

A "classical" system of political economy

During the time of the Corn Law debates, David Ricardo accurately developed the "Classical" system of political economy that constituted economic thinking throughout the nineteenth century. Ricardo (1815) in his *Essay on Profits*, introduced "the law of diminishing returns" as well as a differential theory of rent to the cultivation of land. This theory had been discovered by Malthus and others, who were occupied with the "corn" debate, at about the same time. Ricardo argued that the agricultural sector provided the avenue to establish the rate of profit and rents and that agricultural wage and profit rates would equal rates in industrial sectors. He was thus able to show that variations in wages had an impact on prices and, consequently, profits. On the question of taxation, Ricardo stated that it impacted on consumers whilst Adam Smith believed it was borne wholly by landowners whilst Malthus asserted that it was borne by both landowners and consumers (Ricardo, 1815).

Hollander (1979) indicates that Ricardo published *Principles of Political Economy and Taxation* in 1817. In the first section of this work, Ricardo writes about utility and value. Adam Smith had differentiated between two meanings of "value" that either express the utility of an object (value in use) or the ability to exchange that object for other goods. Utility is essential to the exchangeable value, but it is not a measure of it. Except when the value of a good is determined solely by the good's scarcity when commodities possess utility, the exchangeable value of commodities is derived from two sources: "from their scarcity, and from the quantity of labour required to obtain them". Usually:

> The value of a commodity, or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour (Ricardo, 1821).

Development of economic thought after the repeal of the "Corn Laws"

The years that followed the repeal of "The Importation Act of 1815" by "The Importation Act of 1846" (otherwise known as the Corn Laws), held significant importance for the development of economic thought. Leonard (2003, p. 521) refers to John Bates Clark as the most famous American economist of the later nineteenth and early twentieth centuries and classifies him as a pioneer of neoclassical economics. Bates was "in his day, caricatured as an apologist for laissez-faire capitalism" (Veblen, 1908).

During this period of economic development, a number of other "schools" of economic thought arose that took different stances than the "Mercantilists" the "Physiocrats" or the "Classical School" that developed theories expounded by Adam Smith and Cantillon. For instance, from the late eighteenth century, German political economists started claiming "that their science possessed the unique expertise to identify and explain the basic principles through which human beings use the objects of the physical world to satisfy them" (Bowler, 2005, p. 34). According to Bowler (2005, p. 40), the early German political economists took a different stance to the pioneers of German social polity known as cameralists. They made a distinction between the economic activities of people and the efforts of governments to manage them. Governmental oversight of the economy "now became an 'intervention' [Einmischung] into an essentially autonomous 'economy' the term now denoting a realm of actions, conducted and maintained by the individuals active therein" (Rau, 1833, pp. 4-6). The term "political economy" (*Nationalökonomie*) commenced being employed by scholars by 1805 to indicate the study of economic pursuits by people as distinct from government. The cameralists' concept of "state economy" (*Staatswirthschaft*) began to be applied more narrowly to the fiscal management of government.

Marxian economics

During the nineteenth century, Karl Marx drew on schools of thought, including that of Adam Smith, socialism and egalitarianism, dealing with the distribution of resources and combined these with Hegel's systematic approach to logic to write *Das Kapital*. The first volume was published in Marx (1887/1867) and Engels (1868). Based on the "labour theory of value" Marxist economics considers that capitalism exploits the working class and that the price paid to labour is always lower than its full value. The employers retain the balance as profit. On the matter of the value placed on a commodity Marx related it to its exchange value expressed in its gold equivalent reflecting "the universal character of the labour-time contained in them on the one hand, and its quantity on the other hand" (Marx, 1859).

Marginalism and opportunity costs

About the time, Marx expounded his economic theories Western European economists commenced to reason about marginalism and opportunity costs. William Stanley Jevons presented a brief paper, to the Statistical or Economic Section of the British Association at the 1862 Cambridge Meeting, in which he outlined a theory of exchange (Jevons, 1888, Chapter 1). In this paper, not printed till 1866, Jevons outlined a number of specific points such as: when commodities are exchanged "the increments of utility lost and gained at the limits of the quantities exchanged must be equal, otherwise further exchange would take place"; principles of exchange applying to two persons and two commodities are also applicable to general domestic trade and to international trade; and that even if labour is pleasurable it is accompanied by painful exertion that increases rapidly according to a "function of the intensity or the duration of the labor" (Jevons, 1866). In this paper, Jevons also advocated a simple concept of capital in that it was necessary for the maintenance of labour. If capital was not available people would require immediate returns for their labour. He claimed that this concept was much simpler than John Stuart Mill's concept in his *Principles of Political Economy*. Mill (1848, Chapter 4) wrote:

> What capital does for production, is to afford the shelter, protection, tools and materials, and to feed and otherwise maintain the labourers during the process.

The modern period – 1871 to the present

By 1871, the Marginalist Revolution had commenced. The term "Marginalist" was applied to the concept of diminishing marginal utility that was advocated by Jevons, Carl Menger and Léon Walras. A novel idea that formed the basis of the Marginalist Revolution was the notion that a good's "subjective scarcity" was the only determinant of its "natural value". This revolution generated a distinct position from that of classical economics that had been the convention for a century. This stance became classified as "neoclassical economics" and emphasized the proposition that the demand and the supply of a particular good combine to establish an equilibrium position in the price and quantity of the good exchanged. Berstein (2003) claims that it was during the Marginalist Revolution the first "genuine articulation of professional self-consciousness among American economists" took place. It was the time when they also designated boundaries for "an altogether novel protocol" for their profession (Berstein, 2003, p. 135). The neoclassical theorists argued that as individuals consume more and more of a commodity they experience a diminishing of utility for that commodity. In the neoclassical regime, both partners, in a market place exchange of two commodities, would endeavour to obtain maximum satisfaction for their wants. This would be accomplished through the two partners endeavouring to maximize the degree of utility, or rarity, obtained in the transaction (Berstein, 2003, p. 159). Writing almost two centuries after Adam Smith wrote *Wealth of Nations*, Joan Robinson declared her position on neoclassical economics:

> Economic analysis, serving for two centuries to win an understanding of the Nature and Causes of the Wealth of Nations, has been fobbed off with another bribe – a Theory of Value. There were no doubt deep-seated political reasons for the substitution but there was also a purely technical reason (Robinson, 1971, p. v).

A trilogy of "neoclassical" economists and the development of schools of economic thought

When Menger published his *Grundsätzeder Volkswirtschaftslehre* (*Principles of Economics*) in 1871, he formed a part of a trilogy of economists who not only outlined a new principle of marginal utility, but commenced a new period in the development of economics (Hayek, 1994, p. 12). His work was carried on by Eugen von Böhm-Bawerk and Friedick Wiezer. Even though they were students of Menger on one hand (Walker, 2007), Von Mises (1984) asserts clearly that they learnt Menger's economic theory through studying the *Grundsätze,* and that these "students" did make some notable contributions in their own right. For instance, von Böhm-Bawerk published an analysis of capital and interest. During the first 60 years of the nineteenth century, there had been no significant Austrian economist, but Menger's writings changed this position and the Austrian School of Economics was founded. This school was based in Vienna from 1871 till it was disbanded after the onset of Hitler's regime in Germany. It was reestablished in 1970 and continues to the present day from its base in the USA. The Austrian School's rejection of economic modeling and the emphasis on economic subjectivism was developed by Menger, Ludwig von Mises and Friedrich Hayek.

Schumpeter (1954, p. 827) venerated the French Economist Léon Walras as "the greatest of all economists". Even though his *Elements of Pure Economics* was not published until 1874, three years after those by Jevons and Menger, Walras is still considered part of the trilogy of leaders of the Marginalist Revolution. Walras took a different approach from both Menger and Jevons' "marginalist" or "Neoclassical" theories in that he placed marginalism in a formal general equilibrium setting. He provided it with some pervasive considerations of multi-markets that were largely shunned by Jevons and utilized degrees of mathematical precision that Menger avoided. Utilizing simultaneous market demand and supply equations in his analysis, Walras was able to portray his interest in the grand themes of the existence of an equilibrium position in the solving of a system's problems and the stability of that equilibrium. He was also able to incorporate capital and growth as well as introduce the concept of money in his analysis (Walras, 1874). Cirillo (1986) claims that Walras "demonstrated that a pure system of money was consistent with his general equilibrium analysis" and that he "indirectly ... dismissed the idea that money was purely a 'veil' in the sense that an exchange system could work without it" (Cirillo, 1986, p. 214). In his conclusion to his paper Cirillo (1986, p. 219) advises that writings of the great monetarists, Irving Fisher and Milton Friedman reflect two of Walras's fundamental beliefs in their writings. Along with the Italian Vilfredo Pareto, Walras established the "Lausanne School" to develop the general equilibrium theory and to extend the applicability of Neoclassical economics. This school did not extend outside the small group surrounding Walras and Pareto. The orthodoxy of Marshallian orthodoxy swamped it in England and opposition from the German Historical School and its French equivalent restricted its geographical boundaries.

Nine years after the English economist John Stanley Jevons presented his paper to the Statistical or Economic Section of the British Association, he published his *Theory of Political Economy* (Jevons, 1888) that expanded themes in his earlier paper and thus, without knowing it at the time, launched the Marginalist Revolution. Given a pure exchange economy, Jevons was able to show how his principle of diminishing utility, its reliance on individual choice and the equimarginal principle formed the basis for a new and all embracing theory of value. Provided an exchange followed laws that required mutual benefits and uniform and equal rates of exchange for every portion of the good traded, Jevons was able to conclude that the exchange process would always lead to market equilibrium. He did concede that when indivisible components are involved the conclusion of the exchange process could become indeterminate. Although Jevons did not found a formal school of economics, he has been classified within groupings of Anglo-American Neoclassical economists known as "The Radical English Marginalists (Jevonians)".

The Cambridge Neoclassicals (Marshallians) were founded in 1890 when Marshall (1890/1961) published his *Principles of Economics* and Keynes (1890/1999) published *The Scope and Method of Political Economy*. John Neville Keynes was a Professor at Cambridge who is best known as the father of John Maynard Keynes. Keynes, the elder, distinguished between economies as "positive" or "normative" and endeavoured to use deductive and inductive reasoning as a method (Metdodenstreit) and means to resolve differences. The Marshallians chose to combine the theories of British Classical economists such as Ricardo and Mill with Jevons's radical marginalism that was similar to theories emphasized in the Austrian and Lausanne Schools. This distinguished the methodology of the Cambridge Neoclassicals from Continental methodology. Marshall's methodology was enunciated further in the works of his disciples such as Dennis Robertson, Arthur Pigou and John Maynard Keynes.

Their methodology involved factorizing data into their arguments instead of relying on mathematical equations to prove their case. Such data was derived from institutional and industrial organizations, uncertainties, money, business cycles and other phenomena from the "real" world and history. The Marshallians continued to function until the 1930s which saw the onset of the Great Depression and John Maynard Keynes taking another approach.

Rationalization of responses to economic problems

The development of neoclassical economics in the last three decades of the nineteenth century led other social scientists and policymakers to realize that the new subjectivity provided a way for them to rationalize their responses to problems of an economic nature. For instance, Max Weber in *The Protestant Work Ethic and the Spirit of Capitalism* (Weber, 1904-1905/1971), utilized the word "rationalism" as:

> A term of art to describe an economic system based not on custom or tradition, but on deliberate and systematic adjustment of economic means to the attainment of the objective of pecuniary profit (Tawney, 1971, p. 1, fn. e).

Trigilia (2002, p. 56) indicates that Weber attributed the "capitalist spirit" to the influence of Protestantism on the economic ethic. Weber discussed this ethic in two famous essays. The first, *The Protestant Ethic and the Spirit of Capitalism,* was originally published in Weber (1904-1905/1971), and the second, *The Protestant Sects and the Spirit of Capitalism,* written after his trip to the United States, was published in Weber (1991). The term "economic rationalism" was utilized on at least three occasions by Weber in his *Protestant Ethic* (Weber, 1904-1905/1971, pp. 26, 40, 75). The first of these was in a discussion Weber had with Carl Menger and the other two were part of a discussion about religion.

Coleman and Hagger (2001, pp. 7-8) indicate that the term "Economic Rationalism" was employed by the British Economic Historian, Richard Tawney, in the 1920s. Tawney describes the trenchant change in European economic thought that occurred between 1500 and 1700 as "passionless economic science" (Tawney, 1938, p. 18). This suggests that a similar description could be given to the development of economic rationalism following the Marginalist Revolution and the institution of neoclassical economics.

The development of "Keynesian" economics

John Maynard Keynes took up a career in the civil service after his graduation in 1905 and was awarded a Fellowship at King's College in 1909. He became Editor of the *Economic Journal* in 1911. Keynes was a pacifist and in order to assist his country during the World War I he joined the Treasury Department and was involved in financial aspects of the war. A fellow conscientious objector, Kingsley Martin claims that Bertrand Russell considered that Keynes's work at the Treasury "consisted of finding ways of killing the maximum number of Germans at the minimum expense" (Bruner, 2007).

Keynes was selected as the senior Treasury official in the British delegation to the Versailles Peace Conference in 1919. Bruner (2007) claims that he disagreed strongly with the harsh terms negotiated at Versailles and resigned his position. Back in England he wrote *The Economic Consequences of the Peace* (Keynes, 1919). Keynes argued in this controversial book that as Germany could not pay the imposed war reparations further conflict would erupt. This book drew the attention of many thinkers even though many disagreed with his conclusions.

At this stage, Keynes's adherence to neoclassical economics that he taught at Cambridge, aligned him with the economic policies of the Liberal Party in Britain. Bruner (2007) advises that he also wrote widely in a variety of newspapers and magazines. In 1923, his chairmanship of the Liberal journal *The Nation*, provided him with a means to attack the Stanley Baldwin Conservative Government's economic policies.

Bruner (2007), in referring to Keynes' visit to Russia 1926 and his expression of interest in the economic policies of the Communist regime, appears to form a link between this experience and the writing of his essay *The End of Laissez-Faire* after his return to England. However, an Editor's Note on the electronic copy of this essay claims that it was based on Keynes's (1926) address at the "Sydney Ball Lecture … at Oxford in November 1924 and a lecture given by [Keynes] at the University of Berlin in June 1926". This could suggest that Keynes's interest in his visit to Russia was the result of his concerns about individualism and laissez-faire that was prevalent amongst the Marshallians and other social scientists of his day. Keynes (1926, p. 3) claims that economists gave concepts of "a divine harmony between private advantage and the public good … a good scientific basis". Keynes did not believe that "individuals possess a prescriptive 'natural liberty' in their economic activities". He asserted that:

> There is no "compact" conferring perpetual rights on those who have or those who acquire. The world is not so governed from above that private and social interests always coincide (Keynes, 1926, p. 11).

Keynes postulated that the main task of economists of his day was to delineate what governments should do and what they should leave to others. His ideal organizational size for effective control was generally "somewhere between the individual and the modern state". His goal for the future was "separating those services which are technically social from those which are technically individual" (Keynes, 1926, pp. 11, 13).

By the time, Kingsley Martin became the Editor of *The New Statesman* in 1930 Keynes had moved to the left. This magazine had been founded in 1913 by Sidney and Beatrice Webb with the support of prominent members of the Fabian Society such as George Bernard Shaw. With his new politically orientation, Keynes suggested an amalgamation with *The Nation*. Under Martin's editorship, the *New Statesman & Nation* became the leading intellectual weekly publication in Britain for the next ten years and, as Bruner (2007) claims, Keynes became a regular contributor.

In his critique of Keynes's (1930) *Treatise on Money*, Simmons (1933) claimed Keynes's theory that the business cycle could be controlled by maintaining equilibrium between saving and investment was based on imprecise statistical data. Keynes had found "substantial support for his conclusion in the work of Mr [Winfield] W. Riefler of the Division of Research and Statistical Reserve Board, Washington, DC" (Simmons, 1933, p. 265; Riefler, 1930).

Keynes (1933) published *The Means to Prosperity* in 1933. This pamphlet was based on publications in the *London Times* earlier that year. Grether (1933) assessed that the publication dealt with "(1) loan expenditure for creating employment, and (2) the 'reflation' of prices" (Grether, 1933, p. 347).

These were depression years and Keynes set about proposing economic solutions for the economic problems being faced by Britain and the rest of the Western World. By showing that involuntary unemployment could occur, Keynes' (1936/1970) publication, entitled *A General Theory of Employment, Interest and Money*, as Bruner (2007), claims "revolutionized economic theory". Keynes argued in this book:

> ...that the lack of demand for goods and rising unemployment could be countered by increased government expenditure to stimulate the economy (Bruner, 2007).

This book provided "an explanation of the Depression and a policy prescription of how to overcome it and prevent a recurrence" (MacFarlane, 2006, p. 4). Keynes' remedy required shortfalls in private spending to be accommodated by increased government spending. Macfarlane (2006, pp. 4-5) claims that as Keynes' economics were proposed by a person of high intellect and broad worldly experience, his ideas became "attractive not only to economists but to politicians, journalists, businesspeople, and the wider community".

Not all economists agree with Keynes about the cause of the depression. However, Keynes was able to demonstrate that the classical theorists' self-correcting processes, whereby prices would automatically adjust in order to stimulate demand, did not occur. Likewise, the mechanism, neo-classical economic theorists said would correct increasing unemployment, did not bring the desired result. The neoclassical economists claimed that in a period of excess labour, over the demand for it, wage levels would decrease until hiring recommenced. This process was also applied to saving and consumption in a way that interest rates would fall until people reduced their rate of saving. Keynes' argument about these laissez-faire proposals was that saving is not diminished as much as the fall in interest rates, spending on plant and equipment does not increase greatly as interest rates fall, and saving and investment are not the main determinants of interest rates in the short term (Wikipedia Contributors, 2007k). Keynes relied on the multiplier effect of government investment to increase the demand for labour and so reduce unemployment levels.

A different economic problem arose with the onset of the World War II and during this period he became an unpaid advisor to the Chancellor of the Exchequer. His article "How to pay for the war" (Keynes, 1940) was thought of highly by the types people who were attracted to his solutions for unemployment. The war had, according to Hayek (1931b, pp. 321-2), caused Keynes to acknowledge that "in war we move back from the Age of Plenty to the Age of Scarcity . . .[and that] the Age of Scarcity had arrived before the whole available labour has been employed". Financing the war necessitated real borrowing and increased taxation. It was not possible to obtain the income needed entirely from the rich. Levelling after tax income to £500 per annum would only obtain 66 per cent of estimated requirements and a reduction to £250 per annum would barely obtain the £1,000 m of revenue sought by Hayek (1940, p. 322) and Keynes (1940, pp. 24-5).

As an aftermath of the attack on the World Trade Center on 11 September 2001, Samuel Brittan asks if the methods instigated by Keynes during World War II would be appropriate for financing the "War on Terror". Brittan drew a parallel with Keynes' (1940) theme that the "art of war finance is to borrow on the best possible terms without imposing excessive burden on the post-war generation" (Brittan, 2001). Keynes had proposed the issuing of compulsory savings bonds that would be repaid later in order to avoid a post war slump that was widely expected. The World War II idea was to employ low-interest rates to finance the war effort. As normal balancing of savings and investment when the nation is on a war footing is placed in a state of limbo the scheme could have succeeded if Keynes had not died soon after the end of the war (in 1946).

In his research into the relationship between unemployment and changes in money wage rates in the UK, A. W. Phillips hypothesized that when the demand for a commodity or service was high relative to its supply a rise in the price could be expected. With reference to changes in the money wage rates, he proposed that the changes could be related to changes in the demand for labour and to changes in retail prices as the result of cost of living adjustments to wage rates (Phillips, 1958, p. 283).

After the war, many countries adopted Keynesian economic polices in their reconstruction programs. For instance, in Australia, amongst the first post-war actions of the Chifley government was the issuing of “the White Paper of full employment in Australia, and to pass the Commonwealth Bank Act of 1945”. Thus, the maintenance of full employment was one of the three-part mandate of the central bank (MacFarlane, 2006). At about this time, the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (the World Bank) were established as a result of the Bretton Woods Conference in 1945. This Bretton Woods agreement established a system of fixed exchange rates and heralded a Golden Age of economic growth that lasted for 25 years. Exchanged rates were set to the US dollar and this ensured that the USA was able to impose a discipline on the monetary policies of other countries. This, coupled with demand management of domestic policy along the Keynesian model, saw developed countries “[enjoy] their longest period of strong economic growth and full employment” (MacFarlane, 2006, p. 5).

Opponents of “Keynesian” economics

Not every economist was a supporter of Keynesian economics at this time. For instance, Wright (1945) drew the link between economic theory and public opinion that in turn is often related to economic activity fluctuations. At the time, Wright published his journal article he claimed that “increasing prosperity seems to be bringing with it a growing reaction against Keynesian teaching” (Wright, 1945, p. 284). Wright’s article was published one year after the first publication of Hayek’s (1944) *The Road to Serfdom*. This work provided a very influential and popular exposition of libertarianism and classical liberalism. Outcomes of this work were the lessening of the influence of socialism through a revival of classical liberal thinking. It provided a political ideological model that was employed significantly in the administrations of Margaret Thatcher (1979-1990), in the UK, and Ronald Reagan (1981-1989) in the USA. Social scientists and journalists referred to concepts, known as “Reagonomics” and “Thatcherism” in their articles. Thus, Thatcher and Reagan became leaders in a Hayek-influenced global liberal revival.

By the mid-1960s, when the former Governor of the Reserve Bank of Australia, Ian Macfarlane, commenced studying economics, there was a sense of idealism and self-confidence that attracted undergraduates to the economics profession. They felt that the problems of developed countries had been solved largely as the result of governments adopting Keynesian frameworks that ensured active demand management by adopting mainly fiscal policies but also, some monetary policies (MacFarlane, 2006, p. 4).

Monetary policy

Towards the end of the 1960s, the pendulum began to swing back to monetary policy. The belief that fine tuning by the recently introduced Federal Reserve System in the USA and its advances in monetary technology had led to relative stability in the 1920s. The Great Depression destroyed this hope and people began to realize that monetary policy could be used to stop inflation but not halt recession. However, in 1968, Milton Friedman conceded that it is an unattainable task of monetary policy to peg interest rates for an extended period and to peg the rate of unemployment for long periods of time. He did claim, however that "monetary policy can prevent money itself from being a major source of economic disturbance …[and] monetary policy can … provide a stable background for the economy" (Friedman, 1968, pp. 12-13). To accomplish this, monetary authorities need to undertake tasks it can control and not attempt tasks outside its control. Also, they need to avoid sharp policy swings (Friedman, 1968, pp. 14-15). An obituary in the Christian Science Monitor, stated that "Milton Friedman was a tireless promoter of the free market, but he was first and foremost an objective scientist" (Skousen, 2006). Monetarism still influences modern policymaking even though such an influence is not as powerful as it was in the late 1970s and early 1980s.

Economic rationalism

Modern day economic rationalists are strong advocates of the free market system. Their ideological pursuit of market fundamentalism appears to guide the policies hey advocate and implement. However, early economic rationalists tended to adopt Keynesian macroeconomic models as well as a sophisticated neoclassical microeconomic model. Thus, by the late 1970s, the tendency of economic rationalists was to reject ideas of market failure and to adopt a simple model of perfect competition devoid of undesirable government intervention. During the 1970s, the emphasis was on deregulation of the private sector and the elimination of practices that distorted prices. If the total national output rose, then it was considered that economic policy had resulted in "allocative efficiency". By the middle of the 1980s, microeconomic reform, exemplified through the "Thatcher revolution" in the UK, tended to replace emphasis on macroeconomic policy. In this change in economic policy, emphasis centred on "privatisation, corporatisation and competitive tendering in the public sector". Quiggin (1997a, b, pp. 3-12) claims that some scientists suggest that the mediocre outcomes from microeconomic reforms have been achieved at the expense of an accelerated increase in income and social divides. Economic rationalism's contribution to declining social cohesion and increasing pursuit of self-interest, has interfered with social life with some being winners and others being losers.

Coleman and Hagger (2001, p. 9) attribute the first Australian use of the term "economic rationalism" to a paper written in 1979 by A.S. Watson, an agricultural economist. According to Watson, the Australian Labor Party's agricultural policy at that time was:

> Characterized by two separate strands. Firstly, there is a strong popular tradition that supports government intervention in agricultural marketing arrangements and public investment in land development and irrigation schemes.
>
> The second strand of Labor thinking on agricultural policy can be described as economic rationalism … Ironically, this faction within the ALP is often more prepared to espouse

"market solutions" to agricultural policy problems than the coalition parties (Watson, 1979, pp. 164-5).

This would appear to imply that Watson considered "economic rationalism" is "leaving economic problems to the market" rather that relying on government intervention for a solution. Watson offered no formal definition of "economic rationalism". This had been the case with Weber and Tawney before him.
Although the term "economic rationalism" had not been in general use in Australia, prior to the 1990s, it was used by Withers (1986) in his paper Economic Rationalism and Wage Indexation. As well as these references by Watson and Withers, Coleman and Hagger (2001, pp. 9, 11) claim that the then Secretary to the Commonwealth Treasury, Bernie Fraser used it in his 1989 paper The Australian Treasury – Tendering Economic Advice. In this paper, he said "A better characterization of the Treasury is to see it was a force for 'economic rationalism'". Whitewell (1986, p. 268) claims that in a mixed economy where market forces have a significant role, ignoring or inappropriate intervention in these forces would have the propensity to produce policies not very helpful to the maintenance of existing standards of living.

Prior to 1990, the term "Economic Rationalism" was not employed to attack economics or economists. But, according to Coleman and Hagger (2001, pp. 11-12), this all changed in 1991 with the publication of Pusey's (1991) *Economic Rationalism in Canberra: A Nation Building State Changes its Mind.*

Four principal reasons support Pusey's belief that economic rationalism is wrong as a policy and as a way of understanding Australian society. Firstly, reliance on neoclassical economics has not provided flexibility in budget construction. Whilst the second and third reasons relate to Western European models seeking a balance between economic considerations and the needs of states, societies and the law, the fourth expresses concerns about the propensity for Western countries to restrain society as occurred prior to the Soviet collapse. To Pusey, economic rationalism is arrogant in its assumption that "economics, markets and money can always deliver better outcomes than states, bureaucracies, and the law". However, when good economic rationalists search for alternatives to government programs, they become interested in assessing arguments and evidence about the net benefits of such programs. If government initiatives are found to do more good than harm, economic rationalism may be considered to be normative rather than positivist (Cox, 1992, pp. 37-40; Saunders, 1992, pp. 57-8). A more technical and narrow definition regarded the principal concern of economic rationalism to be with economic management and efficiency in resource allocation. It has had little concern with income or wealth distribution unless it impacted on macroeconomic performance (Argy, 1992, pp. 83-90).

In the case for market deregulation, positive economics is not value free and thus "has led economists to claim the full support of their discipline for statements that reflect their own values" (Nevile, 1980, p. 83). This has led to the belief, by quasi economists concentrating on positive economics and productive efficiency, that it would not be necessary to discuss how the rewards would be divided.

Most economic rationalists may not be imperialistic, or believe that the market is the only legitimate allocator of goods and services, as some opponents of economic rationalism have proposed. Thus, opposition to economic rationalism could have been based on the rationalistic concept of the supremacy of the market with little thought for income distribution. Nevile (1993, p. 3) claims that some economic rationalists argue that "unequal distribution is important to create the right incentives". In supporting his case, Nevile cites arguments advanced by Battin (1991, p. 296) and Davidson (1993, p. 22).

Economics may be regarded as "a tool kit of ways of solving economic problems" and, as such, might not possess unchangeable scientific laws. Therefore, economic rationalistic conclusions do not evolve from some mysterious scientific law. Again Nevile (1993, p. 3) asserts that although economic rationalists have been wrong at times, they have contributed to the change in direction of Australia from that of an inward looking country seeking protection for its resource industries to an export-oriented country.

Some supporters of economic rationalism have rejected the old belief that moral behaviour had an exclusive association with collective behaviour as, possibly, being a relic of tribal morality. If this was true, the normal individual actions of the market would directly embody selfishness rather than encourage it, for selfishness is an essential operational condition of markets. These protagonists assert that a market cannot continue to exist if its participants do not exhibit the elementary virtues like honesty, fairness, truth-telling, responsibility, reliability and promptness that make up trustworthiness (James, 1993, pp. 116-63).

The Reverend Warren Clarnette was censorious of churches that criticised economic rationalism. In respect to "individualism" Clarnette (1993, p. 171) referred to the teaching of the Sermon on the Mount (Matthew 5:1-7:29 and Luke 6:17-49) that focused on individuals and the new relationship they might have "with God, the neighbour and the self" (Matthew 7:24 and 5:17). The Bible defined the poor as people who recognise their need of grace and thus being poor is not solely characteristic of those who lack material possessions. Clarnette (1993, pp. 174-5) was critical of churches promoting an egalitarianism that has produced "a society of equality in poverty [rather than]... one in which affluence and poverty [are] mingled according to the hazards of fortune".

In their critique, of opponents of economic rationalism, Coleman and Hagger (2001, pp. 11-12) claim that the term "Economic Rationalism" had rapid and wide spread appeal after the publication of Pusey's (1991) book, and had become "a new patter phrase" among the general public. It had thus reached well outside the domain of academics and social scientists. Prior to 1990, enquirers had to "read between the lines" to understand what users of the term "Economic Rationalism" meant. There was nothing disparaging about the term. This changed with the publication of Pusey's book and the labelling of people, as adherents of "Economic Rationalism" was also used to abuse them. For example, it became acceptable for journalists in 1997 to "refer to those who embraced 'Economic Rationalism' as number-crunchers who are paid ten times as much to do half as much as a suburban accountant did in the 1970" (Coleman and Hagger, 2001, pp. 11-12).

Whereas support for economic rationalism has been based mainly on efficiency gains through the adoption of such policies, opposition to the rationalists' policies has been based on concerns for the impact of the policies on the less well off – the customers, the clients and small businesses, etc. For instance, the development of electronic banking may have been efficient and enabled competitive interest rates to be applied to loans, but concerns have been expressed about staff redundancies and the effect of the accompanying regressive user charges upon disadvantaged customers. Other concerns have been directed towards the effects the activities of large multinational corporations have had on the environment and wellbeing of the citizens of third world countries. Also, conditions imposed by lenders of last resort, such as the IMF, upon the economies of these countries, have been criticised because of the deleterious effect upon the wellbeing of citizens.

The outcome of such practices may be seen in ever increasing disparities in income levels and standards of living in wealthy countries as compared to poor countries and between groups of people within these countries. It is difficult to see how Clarnette and other supporters of economic rationalism could justify such a situation merely by attributing them to "the hazards of fortune". Although it might be difficult to compare today's socio-economic conditions with those in eighth century BC Northern Israel, the writer of this paper is of the opinion that a similar situation, to that observed by Amos, might be observed in national and global societies today (Amos, 5:11-12 and 6:4-7). Also, it might be difficult to justify outcomes of such "hazards of fortune" in the light of the benchmark parables or to regard the corporate actions as altruistic.

Conclusion

This paper has considered a concept referred to as "economic rationalism" and traced a long line of economic systems that have been adopted from the time of Xenophon and Aristotle (Younkins, 2005) till the present day. The economic historical line progressed through the middle ages in which the political and economic systems were based on a system of contracts. With the onset of the early middle ages, a passionless economic science emerged and the sixteenth and eighteenth century was mainly subjected to an economic theory that related a nation's prosperity to its supply of capital. This theory was known as "Mercantilism". A challenged came to this theory with the onset of classical economics as the result of the writings of Adam Smith and Cantillon.

About a hundred years after the onset of classical economics a marginalist revolution occurred and with the publication of work by Jevons, Menger and Walras neoclassical economics emerged during the years 1871-1874. Neoclassical economics was developed in a number of schools of economics by academics and social scientists who had commenced to advocate a "rational" approach to economic policymaking. The Great Depression and the World War II forced a rethink of economic policy and Keynesian economics that adopted a macroeconomic approach to the management of the economy became the dominant policymaking resource. Libertarians and monetarists like Friedrich Hayek and Milton Friedman would not accept this interventionist approach and policymakers began to adopt a market fundamentalist ideological approach.

Although the term "economic rationalism" was utilized by Weber and Tawney during the first-half of the twentieth century, it did not start to be employed in a more general way by Australian academics and social scientists until the 1970s. Even then, it was not used in a derogatory way. However, after the publication of Michael Pusey's book about economic rationalistic policies and practices adopted by Australian bureaucrats, it began to be employed as a term of abuse. Recently, market fundamentalism by politicians with an ideology of individualism is an area of contention with those politicians who place more importance on social justice concerns.

References

Aquinas, T. (1955), "Summa Theologiae, Madrid, La Editoria Catholica", (English trans. The 'Summa Theologica' of St Thomas Aquinas, Fathers of the English Dominican Province, Burns, Oates & Washborne, London, 1929).

Argy, F. (1992), "Review of economic rationalism in Canberra, a nation-building state changes its mind", *Economic Papers*, Vol. 11, pp. 83-90.

Battin, T. (1991), "What is this thing called economic rationalism", *Australian Journal of Social Issues*, November.

Berstein, M.A. (2003), "American economists and the marginalist revolution: notes on the intellectual and social context of professionalization", *Journal of Historical Sociology*, Vol. 16 No. 1, pp. 135-80.

Bloy, M. (2004), "The peel web: the corn laws", available at: http://dspace.dial.pipex.com/town/terrace.adw03/peel/cornlaws/c-laws.htm (accessed 1 February 2007).

Bowler, R. (2005), "Sentient nature and human economy: the 'human' science of early Nationalökonomie", *History of Human Sciences*, Vol. 18 No. 1, pp. 23-54.

Brittan, S. (2001), "How to pay for the war", *Financial Times*, 10 November.

Bruner, J. (2007), John Maynard Keynes, Sparticus Educational Web site, available at: www.spartacus.schoolnet.co.uk/TUkeynes.htm (accessed 15 February 2007).

Cantillon, R. (1931), *Essai Sur La Nature Du Commerce En Général*, Augustus M. Kelley, New York, NY, (Edited and translated by Henry Higgs).

Carroll, J. (1992), "Economic rationalism and its consequences", in Carroll, J. and Manne, R. (Eds), *Shutdown: The Failure of Economic Rationalism and How to Rescue Australia*, The Text Publishing Company, Melbourne, pp. 7-26.

Cirillo, R. (1986), "Leon Walras' theory of money", *American Journal of Economics and Sociology*, Vol. 45 No. 2, pp. 215-21.

Clarnette, W. (1993), "The churches and economic rationalism", in James, C., Jones, C. and Norton, A. (Eds), *A Defence of Economic Rationalism*, Allen and Unwin, Sydney, pp. 168-75.

Coleman, W. and Hagger, A. (2001), *Exasperating Calculators: the Rage Over Economic Rationalism and the Campaign Against Australian Economists*, Macleay Press, Sydney.

Cox, J. (1992), "Changing minds, changing attitudes: Michael Pusey's economic rationalism in Canberra", *Policy*, Vol. 8, pp. 37-40.

Davidson, P. (1993), "Free market ideologies; a failure to understand", *Impact*, March.

De Malynes, G. (1622), *The Maintenance of Free Trade*, William Shefford, London, available at: www.efm.bris.u/het/malynes/malynes.txt (accessed 7 February 2007).

Engels, F. (1868), *Fredrick Engels' Synopsis of Capital: Volume 1, Book 1: The Process of Capitalist Production*, Text transcribed to the internet in 1993 by Zodias. The present html markup was done in early 1999 by Brian Basgen, available at: www.marxists.org/archive/marx/works/download/Engels_Synopsis_of_Capital.pdf (accessed 11 February 2007).

Friedman, M. (1968), "The role of monetary policy", *The American Economic Review*, Vol. 58 No. 1, pp. 1-17.

Grether, E.T. (1933), "Reviewed work: the means to prosperity by John Maynard Keynes", *The American Economic Review*, Vol. 33 No. 2, pp. 347-9.

Hayek, F.A. (1931b), "Introduction to Richard Cantillon", Abhandlung über die Natur des Handels im allgemeinen. Abhandlung über die Natur des Handels im allgemeinen.

Jena, Verlag von Gustav Fischer. Translation prepared by Micheál Ó'S?illeabháin for the Symposium on Richard Cantillon, Pacific Grove, California, August 1980.

Hayek, F.A. (1940), "Reviewed work: how to pay for the war by J.M. Keynes", *The Economic Journal*, Vol. 50 Nos 198/199.

Hayek, F.A. (1944), *The Road to Serfdom*, Routledge Press, London.

Hayek, F.A. (1994), "Introduction: Carl Menger", in Spadaro, L.M. (Ed.), *Principles of Economics*, Libertarian Press, Grove City, PA, pp. 11-36, Online version by the Ludwig Von Mises Institute, 2004, available at: www.mises.org/etexts/menger/ednote.asp (accessed 10 February 2007).

Higgs, H. (1892), "Cantillon's place in economics", *Quarterly Journal of Economics*, Vol. 6, pp. 436-56.

Hollander, S. (1979), "Economics and ideology: post-Ricardo", *Literature of Liberty. Library of Economics and Liberty*, Vol. 2 No. 3, pp. 5-35.

Hollander, S. (1982), "The economics of David Ricardo: a response to professor O'Brien", *Oxford Economic Papers, New Series*, Vol. 34 No. 1, pp. 224-46.

Hunter, V. (1996), "Reviewed work: Xenophon 'Oeconomicus': a social and historical commentary by Sarah H. Pomeroy", *Classical Philology*, Vol. 91 No. 2, pp. 184-9.

James, M. (1993), "Markets and morality", in James, C., Jones, C. and Norton, A. (Eds), *A Defence of Economic Rationalism*, Allen and Unwin, Sydney, pp. 160-7.

Jevons, W.S. (1866), "Brief account of a general mathematical theory of political economy", *Journal of the Royal Statistical Society*, Vol. 29, pp. 282-7.

Jevons, W.S. (1881), "Richard Cantillon and the nationality of political economy", *The Contemporary Review*, Vol. 39, pp. 61-80.

Jevons, W.S. (1888), "The theory of political economy", 3rd ed., Macmillan and Co. and Library of Economics and Liberty, London, available at: www.econlib.org/LIBRARY/YPDBooks/Jevons/jvnPE1.html (accessed 15 January 2007).

Johnson, H.G. (1971), "The Keynesian revolution and the monetarist counter-revolution", *Amercian Economic Review*, Vol. 61, pp. 1-14.

Keynes, J.M. (1919), "The economic consequences of the peace", available at: http://socserv2.socsci.mcmaster.ca/econ/ugcm/3ll3/keynes/peace.htm (accessed 15 February 2007).

Keynes, J.M. (1926), *The End of Laissez-Faire*, Hogarth Press, London, available at: www.panarchy.org/keynes/laissezfaire.1926.html (accessed 16 February 2007).

Keynes, J.M. (1930), *A Treatise on Money*,Vol. 1 and 2, Harcourt Brace, New York, NY.

Keynes, J.M. (1933), *The Means to Prosperity*, Harcourt Brace, New York, NY.

Keynes, J.M. (1940), *How to Pay for the War*, Macmillan & Co., London.

Keynes, J.M. (1970), *The General Theory of Employment Interest and Money*, Macmillan, St Martin's Press, London.

Keynes, J.N. (1999), *The Scope and Method of Political Economy*, Batoche Books, Kitchener.

Kilcullen, R.J. (1996), *Adam Smith: The Wealth of Nations*, POL264 Modern Political Theory, Macquarie University, Sydney, available at: www.humanities.mq.edu.au/Ockham/y64l02.html (accessed 9 February 2007).

Leonard, T.C. (2003), "A certain rude honesty: John Bates Clark as a pioneering neoclassical economist", *History of Political Economy*, Vol. 35 No. 3, pp. 521-58.

Liggio, L. (1980), "Richard Cantillon and the French economists: distinctive French contributions to J.B. Say", paper presented at Symposium on Richard Cantillon, Pacific Grove, California, August.

MacFarlane, I. (2006) Boyer Lectures 2006. Australian Broadcasting Commission Transcripts. Radio National, Australian Broadcasting Commission, Sydney.

Malthus, T.R. (1814), "Observations on the effects of the corn laws, and of a rise or fall in the price of corn on the agriculture and general wealth of the country", in Hay, R. (Ed.) The Avalon Project at Yale Law School: The Corn Laws by T.R. Malthus. J. Johnson and Co., London, available at: www.yale.edu/lawweb/avalon/econ/corframe.htm (accessed 30 January 2007).

Marshall, A. (1890/1961), *Principles of Economics, an Introductory Volume*, 8th ed., Macmillan, London.

Marx, K. (1859), *A Contribution to the Critique of Political Economy*, Progress Publishers, Moscow, Translated by S.W. Ryazanakaya, On-line Version: Marx.org 1993 (Preface, 1993), Marxists.org 1999, Transcribed by Tim Delaney, Zodiac, 1999, available at: www.marxists.org/archive/marx/works/1850/pol-econ/index.htm (accessed 11 February 2007).

Marx, K. (1887/1867), *Capital Volume One: The Process of Production of Capital*, Progress Publishers, Moscow, First English edition of 1887 (taken from 4th German edition), Translated by Samuel Moore and Edward Aveling, edited by Fredick Engels, Online Version: Marx/Engels Internet Archive (marxists.org) 1995, 199. Transcribed: Zodiac, Hinrich Kuhls, Alland Thurott, Bill McDorman, Bert Schultz and Martha Gimenez (1995-1996). HTML Markup: Stephen Baird and Brian Basgen (1999). available at: www.marxists.org/archive/marx/works/download/Engels_Synopsis_of_Capital.pdf (accessed 11 February 2007).

Mill, J.S. (1848), *The Principles of Political Economy Book 1: Production*, John-Mill.com 2004, available at: www/john-mill.com/works/economy/5.html (accessed 12 February 2007).

Neville, J.W. (1980), "Economic activity and fiscal policy in Australia: a survey and critique", *The Economic Record*, Vol. 56, pp. 301-15.

Neville, J.W. (1993), "Economic rationalism: on throwing out the bathwater, but saving the baby", The 1993 Giblin Lecture, ANZAAS Conference. Perth, Working Paper No. 3, New College Institute for Values Research, the University of NSW, Sydney.

Nozick, R. (1993), *The Nature of Rationality*, Princeton University Press, Princeton, NJ.

Phillips, A.W. (1958), "The relation between unemployment and the rate of change of money wage rates in the United Kingdom, 1861-1957", *Economica*, Vol. 25 No. 100, pp. 283-99.

Pomeroy, S.B. (1994), *Xenophon Oeconomicus: A Social and Historical Commentary*, Clarendon Press, Oxford.

Pusey, M. (1991), *Economic Rationalism in Canberra: A Nation-Building State Changes its Mind*, Cambridge University Press, Cambridge.

Quesnay, F. (1759), "Tableau Œconomique", available at: www.taieb.net/auteurs/Quesnay/tableau.html (accessed 21 February 2007).

Quesnay, F. (1766), "Analyse de la formule arithmétique du Tableau Économique de la distribution des dépenses annuelles d'une Nation agricole", available at: www.taieb.net/auteurs/Quesnay/tableau.html (accessed 21 February 2007).

Quiggin, J. (1997a), "Estimating the benefits of Hilmer and related reforms", *Australian Economic Review*, Vol. 30 No. 3, pp. 256-72.

Quiggin, J. (1997b), "Economic rationalism", *Crossings*, Vol. 2 No. 1, pp. 3-12, available at: http://ecocomm.anu.edu.au/quiggin/JournalArticles97/Econrat97.html (accessed 10 February 2001).

Rau, K.H. (1833), "Lehrbuch der politischen Oekonomie (Textbook on Politcial Economy)", *Die Volkswirthschaftslehre (Principles of Economics)*, 2nd ed.,Vol. 1, C.F. Winter, Heidelberg.

Ricardo, D. (1815), *An Essay on Profits: An Essay on the Influence of a low Price of Corn on the Profits of Stock*, John Murray, London, available at: http://socserv.mcmaster.ca/econ/ugcm/3ll3/ricardo/profits.txt (accessed 10 February 2007).

Ricardo, D. (1821), *On the Principles of Political Economy and Taxation*, 3rd ed., First Published in 1817, John Murray, Library of Economics and Liberty, London, available at: www.econlib.org/LIBRARY/Ricardo/ricP1.htm (accessed 10 February 2007).

Riefler, W.W. (1930), *Money Rates and Money Markets in the United States*, Harper, New York, NY.

Robinson, J. (1956/1971), *The Accumulation of Capital*, Macmillan, London.

Rothbard, M.N. (1995), *Economic Thought before Adam Smith. Vol. 1: An Austrian Perspective on the History of Economic Thought*, Edward Elgar, Cheltenham.

Salerno, J.T. (1985), "The influence of Cantillon's Essai on the methodology of J.B. Sat: a comment on Liggio", *The Journal of Libertarian Studies*, Vol. 8 No. 2, pp. 305-16.

Saunders, P. (1992), "The economy, economists and the welfare state: crisis or crusade?", in Saunders, P. and Graham, S. (Eds), *Beyond Economic Rationalism: Alternative Futures for Social Policy. Proceedings of a Joint Conference with the Department of Social Work and Social Administration, University of Western Australia, and Social Policy Research Centre, University of New South Wales, Sydney, 27 November*, pp. 33-70.

Say, J.B. (1803), "Traité d'économie politique: ou, simple exposition de la manière dont se forment, se distribuent et se consomment les richesses", Translation: Treatise on Political Economy: On the Production, Distribution and Consumption of Wealth, New York, NY, Kelley: 1963 (1st ed. 1827).

Schumpeter, J.A. (1954), *History of Economic Analysis*, Oxford University Press, New York, NY, Edited from manuscript by Elizabeth Boody Schumpeter.

Simmons, E.C. (1933), "Mr Keynes's control scheme", *The American Economic Review*, Vol. 23 No. 2, pp. 264-73.

Skousen, M. (2006), "Milton Friedman was a tireless promoter of the free market, but he was first and foremost an objective scientist", *Christian Science Monitor*, Vol. 99 No. 23, p. 28.

Smith, A. (1976), *An Inquiry into the Nature and Causes of the Wealth of Nations*, Clarendon Press, Oxford, Edited by R.H. Campbell & A.S. Skinner.

Spengler, J.J. (1954), "Richard Cantilon: first of the moderns", *The Journal of Political Economy*, Vol. 62, pp. 281-95 and 406-24.

Steiner, P. (1999), "J-B say and the political economy of his time: a quantitative approach", *Journal of the History of Economic Thought*, Vol. 21 No. 4, pp. 349-68.

Strachan, G.L. (1998), "Irrational 'rationalism'", available at: www.gwb.com.au/gwb/news/economic/210198.html (accessed 31 January 2007).

Tarascio, V.J. (1985), "Cantillon's Essai: a current perspective", *The Journal of Political Studies*, Vol. 8 No. 2.

Tawney, R.H. (1938), *Religion and the Rise of Capitalism*, Penguin, West Drayton.

Tawney, R.H. (1971), *Foreward. Max Weber: The Protestant Work Ethic and the Spirit of Capitalism*, Unwin University Press, London, pp. 1(a)-11.

Thornton, M. (2007), "The origin of economic theory: a portrait of Richard Cantillon (1680-1734)", The Ludwig von Mises Institute, available at: www.mises.org/content/cantillon.asp# (accessed 16 January).

Trigilia, C. (2002), *Economic Sociology: State, Market, and Society in Modern Capitalism*, Blackwell Publishers, Oxford.

Veblen, T. (1908), “Professor Clark’s economics”, *Quarterly Journal of Economics*, Vol. 22 No. 2, pp. 147-95.

Vinogradoff, P. (1924), *Feudalism. Cambridge Medieval History*,Vol. 3, Cambridge University Press, New York, NY, pp. 458-84.

Von Mises, L. (1984), *The Historical Setting of the Austrian School of Economics*, Ludwig von Mises Institute, Auburn, AL, available at: www.mises.org/hsofase/ch1sec1.asp (accessed 13 February 2007).

Walker, D.L. (2007), “Austrian economics”, *The Concise Encycopedia of Economics*, available at: www.econlib.org/library/enc/AustrianEconomics.html (accessed 8 February).

Walras, L. (1874), “Elements of pure economics: or, the theory of social wealth Translation of Elements d’economie politique pure”, Translated by William Jaffe. Published for the American Economic Association and the Royal Economic Society by R.D. Irwin, Nashville, TN (1965).

Watson, A.S. (1979), “Rural industries”, in Patience, A. and Head, R. (Eds), *From Whitlam to Fraser: Reform and Reaction in Australian Politics*, Oxford University Press, Melbourne.

Weber, M. (1904-1905/1971), *The Protestant Ethic and the Spirit of Capitalism*, Unwin University Books, London, Translated by Talcott Parsons with a Foreward by R.H. Tawney.

Weber, M. (1906/1991), “The Protestant sects and the spirit of capitalism”, in Gerth, H.H. and Wright-Mills, C. (Eds), *From Max Weber: Essays in Sociology*, Routledge, London, pp. 302-26, Translated, Edited and with an Introduction by H.H. Gerth and C. Wright Mills: With a New Preface by Bryan S. Turner.

Whitewell, G. (1986), *The Treasury Line*, Allen and Unwin, Sydney.

Wikipedia Contributors (2007d), “Classical economics”, Wikipedia, The Free Encyclopedia, available at: http://en.wikipedia.org/w/index.php?title = Classical_economics&oldid = 99813343 (accessed 16 January).

Wikipedia Contributors (2007g), “Mercantilism”, Wikipedia, The Free Encyclopedia, available at: http://en.wikipedia.org/w/index.php?title = Mercantilism&oldid = 103870822 (accessed 29 January).

Wikipedia Contributors (2007h), “Corn Laws”, Wikipedia. The Free Encyclopedia, available at: http://en.wikipedia.org/w/index.php?title = Corn_Laws&oldid = 103364702 (accessed 30 January).

Wikipedia Contributors (2007i), “Economic Growth”, Wikipedia, The Free Encyclopedia, available at: http://en.wikipedia.org/w/index.php?title = Economic_growth&oldid = 105172794 (accessed 7 February).

Wikipedia Contributors (2007k), “Keynesian Economics”, Wikipedia, The Free Encyclopedia, available at: http://en.wikipedia.org/w/index.php?title = Keynesian_economics& oldid = 107937053 (accessed 17 February).

Withers, G. (1986), “Economic rationalism and wage fixation”, *Economic Papers*, No. 5.

Wright, D.M. (1945), “The future of Keynesian economics”, *American Economic Review*, Vol. 35 No. 3, pp. 284-307.

Xenophon (c400BC) (2007), “The Economist (Oeconomicus)”, Translation by H.G. Dakyns, Academy Reading Room, available at: http://evans-experientialism.freewebspace.com/ xenophon_economist.htm (accessed 19 January).

Younkins, E.W. (2005), *Aristotle and Economics*, Accountancy and Business Administration at Wheeling Jesuit University in West Virginia, available at: www.quebecoislibre.org/05/ 050915-11.htm (accessed 16 January 2007).

Appendix

5th Cent BC			
431-355 BC			Xenophon – earliest Greek economist
4th Cent BC			
384-322 BC			Aristotle – *portrays place of economy in society*
Middle Ages AD 476 - 1453			From the fall of Rome to the Renaissance
1000 ↑			The main political system was known as 'Feudalism'
1225-1274			Thomas Aquinas. In his Summa Theologica PartII develops economic thought
1500 ↓			The Church guided the way in which economic transactions took place
Early Modern Period			1500 -1700 AD
1500 ↑			Objective and passionless economic science emerges
1500 ↑			Prevailing economic theory – 'Mercantilism'. A nation's prosperity dependent on its capital (bullion) -
1500 ↑			'Bullionists'include – Thomas Milles (1550 – 1627) and Gerald de Malynes (1486-1641)
1639			1st form of protectionist legislation – the 'Corn Laws' appeared on English Statute Books – they remained their till 1846.
1700 ↓			A 'new science of Political Arithmetic' has replaced Christian economic value systems linking economic transactions to a moral rule.
\`Mid Modern' Period			1700 – 1871 AD.
1755			Richard Cantillon's*'Essai sula Nature du Commerce en Général'*published.
1760s			François Quesnay's French group of enlightenment thinkers known as the Physiocrats formed.

(*Continued*)

Figure A1.
Economic time line

1776	Adam Smith's '*An Inquiry into the Nature and Causes of the Wealth of Nations'* was published.
1776	Classical economics is generally considered to have begun. However, some claim it began with Cantillon.
1790	Adam Smith died.
1793-1815	Napoleonic Wars
1803	Jean-Baptiste Say's '*Treatise on Political Economy´* was published.
1804-1808	The bullion price of corn was ≈ seventy-five shillings a quarter.
1815	In England, Lord Liverpool's government introduced the 'Corn Laws' – *'The Importation Act of 1815'*.
1817	David Ricardo's*'On the Principles of Political Economy and Taxation'* was first published.
1846	*'The Importation Act of 1815'* was repealed by'*The Importation Act of 1846'*.
1847	John Bates Clark, the famous American economist, was born.
1848	John Stuart Mill published the first book of *'The Principles of Political Economy'*. The term 'political economy'commenced being used by scholars in 1805.
1862	William Stanley Jevons read his*'Brief Account of a General Mathematical Theory of Political Economy'* to the Royal Statistical Society, London
1866	Jevons's*'Brief Account of a General Mathematical Theory of Political Economy'* was published.
1867	The first volume of Karl Marx's '*Das Ka*pital' was published.
The Modern Period	1871 to the Present
1871	The Marginalist Revolution commenced. The term *'Marginalist'* was applied to a concept of *'diminishing marginal utility'* advocated by Jevons, Menger and Walras.

Figure A1.

(*Continued*)

1871			Jevons published '*Theory of Political Economy*'.
1871			Carl Menger published '*Grundsätzeder Volkswirtschaftslehre*' (Principles of Economics). Menger formed a part of a trilogy (Jevons, Menger & Walras) of economic writers who not only outlined a new principle of marginal utility but commenced a new period in the development of economics.
1871			The Austrian School of Economics was founded. It was based in Vienna till the 1930s. It has operated in the USA since 1970.
1874			Léon Walras published his '*Elements of Pure Economics*'. Even though this was three years after Jevons's and Menger's publications, Walras is still considered part of the trilogy of leaders of the Marginalist Revolution.
1874			Walras and Vilfred Pareto established the 'Lausanne School' to develop general equilibrium theory and to extend the applicability of Neoclassical economics.
1890			The Cambridge Neoclassicals ("Marshallians") were founded by Alfred Marshall and John Neville Keynes.
1890			Alfred Marshall published his '*Principles of Economics*'.
1890			John Neville Keynes published '*the Scope and Method of Political Economy*'.
1904/5			Max Weber published '*The Protestant Ethic and the Spirit of Capitalism*'. He used the term 'economic rationalism' on at least three occasions in the work.
1914-1918			The First World War.
1919			Versailles Peace Conference. John Maynard Keynes was the senior British Treasury delegate. He disagreed with the harsh terms being negotiated and resigned his position.
1919			John Maynard Keynes wrote '*The Economic Consequences of the Peace*'.

(*Continued*)

Figure A1.

1923			Keynes became chairman of the Liberal journal *'The Nation'*. This enabled him to attack the Conservative Government's economic policies.
1926			Keynes visited Russia.
1926			Keynes wrote *'The End of Laissez-Faire'*.
1920s (late)			Keynes moved to the left.
1929			An erosion of confidence began to contract credit on financial markets.
1930			Kingsley Martin became editor of *The Statesman*, a Fabian supported magazine. Keynes suggested an amalgamation with *The Nation.* The *New Statesman & Nation* became the leading intellectual weekly publication in Britain for the next ten years. .
1930s			This decade saw a severe economic crisis supposedly precipitated by the U.S. stock-market crash of 1929. The Great Depression was unprecedented in its length and in the wholesale poverty and tragedy it inflicted on society.
1933			Keynes published *'The Means to Prosperity'*.
1936			Keynes publication *'A General Theory of Employment, Interest and Money' 'revolutionized economic theory'*.
1939 - 1945			The Second World War.
1940			Keynes published *'How to Pay for the War'*. Hayek claims that Keynes acknowledged that*"in war we move back from the Age of Plenty to the Age of Scarcity ..[and that] the Age of Scarcity had arrived before the whole available labour had been employed."*
1944			Friedrich Hayek published *'The Road to Serfdom'*.
1945			Bretton Woods Conference.
1945			The International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (the World Bank) established.

(*Continued*)

Figure A1.

1945	In Australia, the Chifley government issued *'the White Paper on full employment in Australia'* and passed *'the Commonwealth Bank Act'*
1945	David McCord Wright claimed that *"increasing prosperity seems to be bringing with it a growing reaction against Keynesian teaching"*.
1946	John Maynard Keynes died.
1946↑	*'The Road to Serfdom'* causes a revival of classical liberal thinking and a lessening of socialistic influence.
1960s (mid)	A sense of idealism and self confidence attracted undergraduates to the economic profession.
1960s (late)	The pendulum began to shift back to monetary policy.
1968	Milton Friedman's*'The Role of Monetary Policy'* published in '*The American Economic Review*'. Friedman was a '*tireless promoter of the free market*'.
1970s	Early economic rationalists tended to adopt Keynesian macroeconomic as well as a sophisticated neoclassical microeconomic model.
1970s	Economists and policymakers emphasized deregulation of the private sector and the elimination of practices that distorted prices.
1970s (late)	Economic rationalists tended to reject ideas of market failure and to adopt a simple model of perfect competition devoid of undesirable government intervention.
1979	The first Australian use of the term 'economic rationalism' written by A. S. Watson, an agricultural economist.
1979 - 1990	Margaret Thatcher's Conservative Government in power in the United Kingdom. This administration tended to follow Hayek's libertarian economic theories in its policymaking.
1980s (mid)	By the middle of the 1980s, microeconomic reform, exemplified through the 'Thatcher revolution' tended to replace emphasis on macroeconomic policy

(*Continued*)

Figure A1.

1980s (mid)		Policy emphasis under 'Thatcherism' centred on "*privatization, corporation and competitive tendering in the public sector*".
1981- 1989		Ronald Reagon - President of the United States. Reagon adopted Hayek's libertarian economic theories. Social scientists and journalists referred to concepts known as *"Reagonomics"* [and'*Thatcherism*'] in their articles.
1986		The term 'economic rationalism' used in a paper by Glen Withers.
1989		Bernie Fraser, Secretary of the Australian Commonwealth Treasury, used the term 'economic rationalism' in a paper.
1990↓		Prior to 1990 'Economic Rationalism' was not used to attack economists.
1991		Michael Pusey published *'Economic Rationalism in Canberra: A Nation Building State Changes Its Mind'*. To Pusey, economic rationalism is arrogant in its assumption that *"economics, markets and money can always deliver better outcomes than states, bureaucracies, and the law"*.
1991↑		The term 'Economic Rationalism' spread rapidly after the publication of Pusey's book, and became "*a new patter phrase"* among the general public. Prior to 1990 enquirers had to "*read between the lines"* to understand what users of the term 'Economic Rationalism' meant. There was nothing disparaging about the term. This changed with the publication of Pusey's book and the labelling of people, as adherents of `Economic Rationalism'was also used to abuse them
2006		Milton Friedman died.

Figure A1.

Corresponding author
Peter Steane can be contacted at: peter.steane@scu.edu.au

This article has been cited by:

1. Min Teah, Michael Lwin, Isaac Cheah. 2014. Moderating role of religious beliefs on attitudes towards charities and motivation to donate. *Asia Pacific Journal of Marketing and Logistics* **26**:5, 738-760. [Abstract] [Full Text] [PDF]
2. Michael Lwin, Ian Phau, Aaron Lim. 2013. Charitable donations: empirical evidence from Brunei. *Asia-Pacific Journal of Business Administration* **5**:3, 215-233. [Abstract] [Full Text] [PDF]
3. Anna Zueva-Owens, Marianna Fotaki, Pervez Ghauri. 2012. Cultural Evaluations in Acquired Companies: Focusing on Subjectivities. *British Journal of Management* **23**:10.1111/bjom.2012.23.issue-2, 272-290. [CrossRef]
4. Donald Keith Gates, Peter Steane. 2010. Values in Economic Decisions and Policymaking. *International Journal of Public Administration* **33**, 289-301. [CrossRef]
5. David Cooke. 2010. Building social capital through corporate social investment. *Asia-Pacific Journal of Business Administration* **2**:1, 71-87. [Abstract] [Full Text] [PDF]
6. Donald K. Gates, Peter Steane. 2009. The influence of economic rationalism upon policy development. *Asia-Pacific Journal of Business Administration* **1**:2, 89-108. [Abstract] [Full Text] [PDF]
7. Donald Gates, Peter Steane. 2009. Altruism – an alternative value in policy formation and decision making. *International Journal of Social Economics* **36**:10, 962-978. [Abstract] [Full Text] [PDF]