

Understanding the socio-economic impact of actually existing markets: An analytical framework for empirical research ¹

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Abstract: *The market has been virtually canonised. Neoclassical economics has successfully shaped a widespread understanding of the market being synonymous with the economy and capitalism more generally. Public policies have become embedded with market-based mechanisms and the lexicon of neoclassical economics, resulting in radical transformation of markets critical to well-being and traditionally the domain of state intervention. How can we understand, and explain the impact on society, of these ‘restructured’ markets given that neoclassical economics portrays the market as a normative ideal framed around a set of reality-incompatible assumptions? This paper develops a framework for empirical analysis of real world markets to explain their relationship to, and impact on, society’s well-being. Drawing from the discourse about market types in space and time, property rights and contract law, and behaviours shaping the organisation of exchange, twelve distinctive properties of markets are posited. These properties, it is contended, foreshadow a cogent analytical grid of questions which generates a substantive, realistic picture of the organisation, functioning and outcomes of markets characteristic of contemporary capitalism. This picture is needed to inform ongoing debates about the role of the market and provide a credible basis for the development of options to ameliorate the impoverishment of capitalism.*

Keywords: exchange, institutions, markets, neoliberalism, neoclassical economics, property rights, public policy

JEL classification codes: B52, D40, H44

1 Introduction

The market is now considered by the vast majority of mainstream economists, policymakers, the media and politicians as being the far superior coordinating mechanism for all capitalist economies.

... by century's end, to speak ill of markets narrowed one's access to ears, and progressive economists quickly learned to reformulate criticisms as suggestions about improving market performance. Any hint that one considered markets to be part of the problem rather than the key to the solution to any economic problem was sure to blow one's cover in the economics profession as well as policy circles (Hahnel 2007: 1140)

Free market fundamentalism has assumed "an almost biblical status" (Giroux 2009).

With the market's virtual canonisation, public policies have become embedded with market-based mechanisms based on economic concepts derived from the logic of perfect competitive markets. As a consequence there has been a radical transformation of markets which have been a longstanding domain of state intervention. These markets provide goods and services such as electricity, water, education, health insurance, public housing, infrastructure, and services for the disabled, aged and unemployed. Most notably, any direct provision by government of these goods and services has been supplanted, there have been significant pricing changes and complex new regulatory regimes have been instituted. This has been strongly evident in the United States (US), United Kingdom (UK), Canada, Australia and New Zealand. Within the observed typologies or varieties of capitalism, this 'highly homogeneous Anglophone cluster' falls within the classification of liberal market-based economies given the high reliance placed on market mechanisms for coordination of their respective economies (Amable 2003; Crouch 2005; Hall and Soskice 2001). The US of today has been described as the "locus of almost unwashed enthusiasm for unfettered markets" (Nelson 2005: 5).

The rationale for these market-based policies has been couched in terms of the need for greater economic efficiency. Consequently contemporary public policies are almost exclusively framed in the abstract terms of competition, efficiency, supply and demand, or the need to address market failures. This is the lexicon of neoclassical economics which portrays the market as a normative ideal framed around a set of abstract assumptions, where a market is conceived "as a space for carrying out identical transactions which bear on one well-defined

product and lead to the determination of one price” (Coriat and Weinstein 2005: 2). But abstract terms, identical transactions, one product and one price cannot explain the operation and outcomes of these transformed markets which characterise contemporary capitalism.

Markets are not purely about relationships between inanimate objects, between goods and services, which is the strong impression evoked by any mainstream economics text or government publication. Nor are markets simply the intersection of demand and supply functions. Markets involve people, their preferences (influenced by opinions, values and advertising) and relationships with others. Market prices also will influence people’s accessibility to, and participation in, a market.

Many markets, delivering goods and services which reflect the objectives and priorities of public policies, determine – to a significant measure - the health, standard of living and social inclusion of the population. The markets to provide these essential goods and services have, as a result of market-driven policies, been radically transformed over the last twenty years or so. How can we understand, and explain the impact on society, of these ‘restructured’ real world markets given that economists have, until recently, shown little interest in the “emergence and real constitution of markets” (*ibid*: 1)?

How are these actually existing markets for essential goods and services organised? What ensures their ongoing functioning? What is the nature of the goods and services provided by these markets? How does this differ from previous provision? What issues or barriers do participants encounter when engaging with these markets? To what extent do these markets ensure adequate provision to those on lower incomes? What outcomes are these markets delivering? The purpose of this paper is to develop a framework for empirical analysis of real world markets to help answer these questions to explain the structure, operation, interactions and outcomes of actually existing markets denoting the capitalism of today.

Real world markets have attracted few empirical studies, notable exceptions being French strawberry and fish markets, financial and emission trading markets, and the UK’s food, housing, water, telecommunications, public transport, financial services and energy (Garcia-Parpet 2007; Kirman and Vignes 1992; McKenzie 2009; Public Sector Research International Unit 2008). Similarly, little attention has been given to ‘operationalising’ the theoretical into an analytical framework for empirical analysis of real world markets. This paper seeks to address that lacuna not to provide a contribution to the perennial debate about the role of the

market vis-à-vis the state or the limits of market organisation. The impact on society's well-being of markets dominating contemporary capitalism needs to be understood if that perennial debate is to be progressed. Moreover, "a clearheaded perception of how different institutions actually work ... from the market to the institutions of the state" (Sen 2009) is needed to establish a credible foundation for the development of options to ameliorate the impoverishment of capitalism and its "greed, cruelty, corruption and iniquitous power relations" (Giroux 2009). Empirical analysis of real world markets can aid the development of those options.

The paper is structured as follows. Section 2 provides a broad overview of conceptualisations of the market. The shifting attitudes to the notion of the self-regulating market held by mainstream economists and policymakers, and their perception of the relationship between market and state, is discussed along with the success by neoclassical economics, with the hegemony of neoliberalism, in shaping a general understanding of the market as being synonymous with the economy and capitalism more generally. Alternatives to the neoclassical conception, and its incompatible-with-reality assumptions, developed by economic sociology and institutionalists are presented which situate the market as a political and social construct, and one of capitalism's multiplicity of institutions.

Within the context of the preceding discussion, Section 3 commences by outlining six market types (Boyer 1997), the legal institutional framework of the exchange process (Prasch 2008), the actuality of the exchange process (Harvey and Randles 2002), and a more concretised form of market processes of organisation and exchange (Tordjman 1998, 2004). Drawing from these propositions about markets in space and time, the influence of property rights and contract law, the dimensions and embedded behaviours shaping the organisation of exchange, I contend that markets have twelve distinctive properties. These properties range from the relatively simple to the more complex, and are not mutually exclusive, but help us transcend from the abstract to the more concrete by foreshadowing a cogent analytical grid of questions to conduct empirical analyses of real world markets. The section concludes with a brief overview of findings from an application of the analytical grid to five markets of the liberal market-based economy of Australia. The findings unequivocally demonstrate a very different picture of the operation and outcomes of markets from that promulgated by mainstream economics and deeply embedded in public policies. A final section presents concluding comments.

2 How is the market conceptualised?

2.1 *The oscillating conceptions of 'self-equilibrating' markets*

The 1930s Great Depression “called into question the predominant conviction that government should balance its budget, maintain the gold standard, and let business reequilibrate of its own accord during economic downturns” (Weir and Skocpol 1985: 107). Most economists held the view that governments should let markets function free of institutional impediments because ‘free markets’ were not the cause of economic instability and/or stagnation.

After the Second World War, there was a 180 degree turn in this thinking with the widespread adoption by democratically-elected governments of Keynesian economic management. “Its central feature was acceptance of the so-called mixed economy – that is, a capitalist framework within which state enterprise was tolerated and the government held responsible for managing the economy” (Armstrong, Glyn *et al* 1991: 136). The approach of governments became one of using regulation, legislation, collective agreements, and monetary and fiscal policies, to ‘manage’ market mechanisms which if left ‘untamed’, it was advocated, would not provide full employment, steady growth and economic stability. This economic management approach redefined the roles of the state and the market because it rejected the notion of the capitalist economy having a self-correcting ability (Whitwell 1986: 38).

From the 1970s onwards, there has been a very marked shift by mainstream economists and policymakers to the notion of ‘free and unencumbered’ markets being the most efficient method to coordinate the activities of contemporary capitalist economies. Nearly all mainstream economists believe – at least until the 2008 admission by former Federal Reserve Chairman Greenspan of a ‘flaw’ – that markets are self-correcting (Skidelsky 2009). The market had risen like a phoenix (Boyer 1997). Moreover, it ‘imprisoned’ the thinking of policymakers being treated as the “fixed element around which policy must be fashioned” (Lindblom 1982: 333) with policy debates framed solely around the alternatives of a market-state dichotomy.

Government intervention has been increasingly portrayed as detrimental not beneficial to efficient market operations as the ideology of neoliberalism has metamorphosed into the “central guiding principle of economic thought and management” (Harvey 2005: 2). The relationship of the state to the market is a core idea of neoliberalism. The market has primacy and virtually all economic and social problems are seen as having a market solution. Neoliberals, however, recognise that “market order requires a particular kind of state to secure it” (Gamble 2006: 22), a strong state to overcome obstacles and provide necessary support to ensure a ‘free’ market is paramount.

2.2 *The neoliberal market and neoclassical economics*

Market discipline, competition and commodification denote neoliberalism which has been described as:

a mixture of neoclassical economic fundamentalism, market regulation in place of state guidance, economic redistribution in favor of capital (known as supply-side economics), moral authoritarianism with an idealized family at its center, international free trade principles (sometimes inconsistently applied), and a thorough intolerance of trade unionism (Moody 1997: 119-20, emphasis added).

Many of the precepts contained in Moody’s description can be seen in the priorities adopted by national governments and international institutions, such as the International Monetary Fund, World Bank, World Trade Organisation, and Organisation for Economic Cooperation and Development. These policy priorities included fiscal austerity, reduced taxation, ‘fight inflation first’, a reduced role for government and leaner bureaucracies, residual welfare, greater labour market flexibility, deregulation of financial systems, enhanced capital mobility and trade liberalisation (Brenner, Peck and Theodore 2005; Gamble 2006; O’Hara, 2003, 2006).

Human well-being is considered to be best achieved through private property rights, free markets and free trade, and the role of the state is to create an institutional framework which promotes such practices. Institutions such as arbitration and trade unions are seen as preventing a ‘free’ labour market from operating, unemployment is a supply-side problem caused by wages being too high, optimal accumulation conditions require a ‘free’ market regime and protection of the value of money, and the key to profit maximisation is cutting costs through improved management, lower labour costs and/or intensifying labour. Nation-

states and local-states, through a wide range of interventions, have applied the neoliberalism doctrine of market solutions to a widening realm of activity.

Underpinning the political and economic ideology of neoliberalism are four notions about the market, and by default the role of the state. These are the notions of the free market, market failure, market primacy, and interrelationships of market, state and politics. A free market is avowed because it provides choice for a world of 'free', independent individuals – anything restricting choice is morally bad – and choice entails competition which will generate innovation and efficiency. Market imperfections, or distortions, threaten the most efficient allocation of economic resources and lead to market failure requiring action by the state to restore the primacy of the market, that is, the natural order of things – 'in the beginning there were markets'. Finally, because the world is populated with self-interested politicians and bureaucrats, the scope of the state's activities should be scaled back - through privatisation and deregulation - and policy discretion needs to be eliminated (Carrier 1997; Chang 2002).

Chang (2002) cogently argues that all four neoliberal notions about the market are so seriously flawed that they create a biased and incomplete understanding of reality. For example, the definition of the free market, and thus state intervention, is fraught with difficulty because (a) the participants, and terms of participation, in all markets is determined by some form of state regulation, and (b) the same action by the state may be considered an intervention by one society but not another, depending on the legitimacy and hierarchy of the underlying rights-obligations structure for market participants. The definition of market failure is similarly fraught, in Chang's view, because the notion of failure only makes sense in relation to what is considered to be an 'ideal' market. But, as he demonstrates, that regarded by one person as failure (e.g. income inequality) may be seen by another as the normal functioning of the market.

Neoclassical economics presents the market as an abstract aggregate of individual choices and actions exemplified by the simple intersection of demand and supply curves, as "an allocating machine that solves the main problems of ... what to produce, how, and for whom" (Mantzavinos 2001: 162). This paradigm, which dominates mainstream economics, has been criticised by the 1991 Nobel Economics Prize recipient for its increasing abstraction of analysis and preoccupation with price determination resulting in study of "a system that lives in the minds of economists but not on earth ... The firm and market appear by name but they

lack any substance” (Coase (1992: 714). Many others have voiced similar criticisms. Nevertheless, neoclassical economics has successfully shaped

the general understanding of what a “market”, a “market economy”, and even an “economy” in general is, or should be. In its basic approach, it hardly has anything to do with the reality of markets ... however, it has been made ... into an official economic thought system of capitalist-market economies and, thus, a *general theoretical and normative reference and benchmark* for economic analysis, economic systems and policies. This justification of the “market” has been achieved through the definition of a *decentralised economy* in which *prices* play a central role as coordinating devices ... While the “market” is an *ambiguous positive-normative ideal*, it nevertheless is considered not only an adequate reflection of the capitalist-market reality but also serves as a sound policy guideline for its reform (Elsner 2008: 370, original emphasis)

But what does neoclassical economics tell us about the market? First, it assumes that products are optimally allocated in a perfectly informed, atomistic world. Second, the market is attributed self-equilibrating properties because it is assumed to clear automatically via price adjustments i.e. prices respond to changes in demand or supply, finding equilibrium at the price at which the quantity supplied equals the quantity demanded. Accordingly, these oscillations underpin a systemic stability across markets for all goods and services and ensure an optimal allocation of resources between competing needs. Yet this self-equilibrating nature of the market rests on numerous assumptions such as identical consumers behaving rationally because they are perfectly informed about all the available alternatives, zero transaction costs, no trading at disequilibrium prices, and infinitely rapid velocities of prices and quantities (Blaug 2002: 40-41). In addition, it is assumed that communication between market participants is solely through price signals, market participants are anonymous, interaction in the market is horizontal, virtually all transactions are commensurable, all goods are non-collective and the market is not place sensitive (Crouch 2005: 115).

These assumptions mean that market equilibrium can only be achieved if multiple conditions are fulfilled such as: numerous traders so that no one can exert any monopoly power; a finite number of goods and their quality is common knowledge; there are no public goods or externalities of production; returns to scale are constant; all equity issues are completely separate from the objective of efficiency; and, the preferences of buyers and sellers are convex i.e. marginal utility of any good and the marginal productivity of a factor must be declining concurrently (Boyer 1997: 72-74). Therefore, multiple and quite precise conditions are necessary to guarantee optimal market equilibrium.

Notwithstanding any perceived incompatibility of neoclassical assumptions with economic reality, this paradigm maintains that the market should be left 'unfettered' from state interventions to ensure its 'efficient' workings are allowed to determine output and price. Free, competitive markets allocate resources and distribute income most efficiently, it is argued, because they will tend towards a (Pareto) optimal situation which occurs when no change can improve the position of one individual (as judged by herself) without a negative impact on the position of another individual (as judged by that individual).

However, six sources of market failure which threaten the achievement of 'Pareto efficiency' are deemed to warrant government intervention. These are: a failure of perfect competition; a failure to supply public goods such as defence or national security; negative externalities of production such as pollution; markets which provide incomplete goods and services (e.g. insurance); imperfect information to consumers (e.g. weather forecasts); and, 'macroeconomic disturbances' like high levels of unemployment or inflation (Stiglitz 2000: 76-90).¹ The notion of environmental problems as negative externalities arising from market failure strongly exemplifies the policy approach advocated by neoclassical economics. This less than optimal market outcome, according to neoclassicists, can be 'corrected' with the imposition of economic incentives to create the 'correct price' which will reduce externalities and lead to some optimum level of environmental control. More recently, this view of environmental problems has been challenged by one that contends ill-defined property rights cause markets to fail, and clarified rights will enable negotiation between parties in 'free markets' (Hahnel and Sheeran 2009).

It is only in these circumstances of market failure – which jeopardise the holy grail of economic efficiency – that justify any government intervention for mainstream economics.² Government intervention is, according to this view, not warranted to "protect its citizens from misfortune and the random blows of fate by providing the most basic rights and levels of collective security and protection" (Giroux 2009). The views of neoclassical economics about the market, and its relationship with the state, are in close harmony with those of neoliberalism.

2.3 *Alternative conceptions of the market*

The neoclassical conception of the market, and its incompatible assumptions with reality, has been roundly challenged from many within the economics discipline (For example, see: Akerlof 1984; Blaug 2002; Goodwin, Nelson *et al* 2005; Grossman and Stiglitz 1980; Härdle and Kirman 1995; Nelson 2005; Prasch 1995; Sherman, Hunt *et al* 2008; Simon 1991; Stiglitz 1987). Dissatisfaction with the neoclassical conception accounts for some notable extensions to mainstream thinking. For example, Simon's (1992) work on bounded rationality, Coase's (1988) notion of markets being institutions to facilitate exchange and requiring a complex regulatory system of transaction rules, North's (1990) formal and informal 'rules of the game' – institutions - coordinating and shaping interactions such as market exchanges, and Williamson's (1975) work on transaction costs.

A burgeoning discourse has also developed that cogently demonstrates real-world markets do not emerge in some vacuum, are persistently vulnerable to failure, influence the nature and relationships of individuals, reflect socially habituated behaviour, and their operation depends on highly complex non-market institutional arrangements into which they are deeply embedded (For example, see: Altvater 1993; Boyer 1997; Coriat and Weinstein 2005; Hodgson 1988; Martinez 2009; Peck and Theodore 2007; Prasch 2008; Tsakalotos 2004). In addition, Polanyi (2001) contends that self-regulating market mechanisms cannot coordinate fictitious commodities such as money, labour and the environment because their supply is not in response to changing relative prices.

The classic sociological works of Polanyi, Weber and Durkheim inspire economic sociology, emergent since the 1980s, and a major contributor to the discourse about markets. The shortcomings of the neoclassical view of markets have been claimed as a key starting point (Allaire 2009; Fligstein 1996; Zelizer 1988). Economic sociology conceptualises markets as arenas of social interaction, a form of action (exchange) embedded in social relations which cannot exist without rules to regulate exchange. Economic life is embedded in social relations and social structure, and therefore cannot be analysed as if it were separate, distinct or isolated from social worlds (Granovetter 1985). Property rights, governance structures, conceptions of control, and rules of exchange are considered the institutions – the preconditions – for markets to exist (Fligstein 1996). Others have stressed the importance of networks, observed behaviour and population ecology to the social structures exerting control over the market (Granovetter 1985; Hannan and Freeman 1985; White 1981).

A group of sociologists have conducted detailed analyses of the actual creation and functioning of markets, especially financial markets, which have debunked neoclassical notions of markets being atomistic and anonymous, showing instead a range of behavioural rules, relationships, and skills required for participation (e.g. Callon 1998b; Callon, Millo *et al* 2007; Granovetter and McGuire 1998; MacKenzie 2007a, 2009; MacKenzie, Muniesa *et al* 2007; Yakubovich, Granovetter *et al* 2005). It has also been contended that mainstream neoclassical economics is 'performative' because, through the design of institutions of a market-like nature, economists are successful in enacting the behavioural patterns postulated by neoclassical theory (Callon 1998a).

Generally, although it is by far a unified whole, this body of work eschewing the neoclassical view situates the market as one of a multiplicity of formal and informal institutions comprising capitalism. "All institutions, including the market ... are defined in relation to the structure of the rights and obligations of the relevant actors" (Chang 2007: 7) which in the case of the market includes the institutional arrangements that determine and/or regulate market participants, and the objects and process of market exchange. As these 'rights and obligations' are deemed to be the result of politics, the market – like all institutions – is considered to be a political construct. Property rights, and the entitlements bestowed on market participants are not free of politics, nor are the determination of interest rates and wages which impact on every sector of the economy, along with numerous state actions to 'protect' market participants. Far from being 'natural', "markets are the fruit of complex social and historical developments" (Coriat and Weinstein 2005: 1) with politics, and thus the state, being integral to their creation and functioning.

Consequently, this view of the actually existing market assigns a far more active role to the state. Market outcomes result from a myriad of institutional arrangements and processes all of which are influenced by the state and politics. Accordingly, to view the market solely in terms of output and price - as is the predilection of neoclassical economics - provides a partial, and inaccurate view, of economic reality and the functioning of markets.

3 How can we analyse an empirical market to determine its socio-economic impact?

The neoclassical conception of the market, and its reality-incompatible assumptions, provides little insight to a framework for empirical analysis of actually existing markets. Moreover, the starting point for neoclassical analysis is the assumption of a form of market organisation – pure competition, duopoly, oligopoly, or monopoly – and then output, price and cost outcomes are determined within this context (Gould 1980; Sherman, Hunt *at al* 2008). This continues the abstraction from reality which is the antithesis of what we are seeking.

Fligstein (1996) provides a list of market pre-conditions – property rights, governance structures, conceptions of control, and rules of exchange – which infers an analytical approach. Zeliver (1994) suggests empirical analysis is about concrete spaces, commodities being heterogeneous in time and space, money having many social uses, and the convergence of divergent interests overcoming the anonymity of market participants. On the other hand, Coriat and Weinstein (2005: 2) contend that “a market should be analysed like any institution: it is necessary to study the conditions in which it emerges, is stabilised and transformed and possibly goes into crisis”. All provide possible starting points although each requires the theoretical to be ‘operationalised’ to proceed along a path of pragmatic analysis. Insights to help develop this progression are provided by contributions to the discourse about markets from Boyer (1997), Prasch (2008), Harvey and Randles (2002) and Tjordmann (1998, 2004).

Boyer (1997: 62-66) contends that at least six different ‘types’ of markets are distinguishable by the space and time horizon in which the market occurs.

Markets may be periodic and/or peripatetic, presenting an embryonic form of those far more common to contemporary capitalist economies. These markets are authorised to occur at a specific time and location, may be wholesale or retail, and trade commodities such as food, flowers, antiques and second-hand goods. The scope of transactions that take place in these markets is limited. Notable examples of this market type are the small open-air street or flea markets for inexpensive or recycled goods, large wholesale fresh food markets such as Rungis on the outskirts of Paris, or London’s well-known Portobello Street Market.

A second type of market occurs as a temporary ‘screening’ device to procure the least costly or most ‘economically advantageous’ of proposals. The usual outcome of this market is a bilateral commercial contract to supply a specified good or service by a particular time and for a particular price. One prominent example of this market is the provision of large-scale infrastructure through public-private partnerships. A government seeks expressions of interest from companies, a short listed group submits bids through a tender process, and a commercial

contract is negotiated with the preferred bidder to create the asset. Another prominent example is the wholesale electricity trading market where the bids of generation companies are 'stacked' in order of ascending prices as the market operator schedules submitted generating capacity against forecast demand. As demand increases, the more costly bids are scheduled into production and the generation company is contracted to supply at that price. This type of market relies on commercial contracts and thus, cannot function without a legal system.

An aggregation over a geographical area or for one commodity creates, according to Boyer, a third type of market. The European Union single market, designed to unite diverse national economies through the elimination of trade and competition barriers, is one exemplar. Other examples of this aggregated type of market are the worldwide carbon emissions trading market and a country's export market for products such as wheat, coal or beef. This form of market is distinguishable by two elements. First, it does not hold a physical form or locale, not operating within a specific limited and localised space. Second, this market may refer to the demand for a particular good, sector or "even at the economywide [sic] level, implying the equivalent of effective aggregate demand" (Boyer 1997: 64).

Classical and neoclassical economics provide a fourth market type as an abstract mechanism to make compatible a series of 'individual supplies and demands' which adjusts and converges to a unique price. The market is conceived as a process of rational, impersonal, discrete transactions between buyers and sellers. Each buyer and seller attempts to maximise self-interest through market transactions. Information about prices and commodity quality is assumed to be widely available. The presence of numerous buyers and sellers shifts prices towards an equilibrium price which clears the market and achieves allocative and distributive efficiency. Market behaviour corresponds to isolated individual transactions based on "an atomized, *undersocialized* conception of human action" (Granovetter 1985: 483, original emphasis).

The fifth type of market, identified by Boyer, extends the previous abstraction to characterise an economic system dominated by market competition and a set of interdependent markets. That is, a market economy where a population expresses joint demand upon thousands of commodity markets and is rooted in what is construed as fundamental human nature. Thus, anything that extends aspects of the market to non-market

transactions is perceived as 'good' whereas anything that departs from the market model is the converse.

... the Market is said to be a protection against an intrusive state, and hence a guarantor of personal liberty. It is said to allow buyers greater utility and satisfaction than they would otherwise have. It is a source of efficiency, assuring the most rational allocation of resources. It is the surest motor for economic growth and personal prosperity (Carrier 1997: 19).

This market type is commonly invoked as a symbolic icon to serve ideological objectives.

Finally, there is the metaphoric type of market assumed to exist whenever social actors compete for limited resources, positions or status such as that applied by the Chicago school of economics to the social issues of marriage, crime, donations to religious orders, justice and eternal life beliefs. This conception, however, makes the market "so wide in its scope that it does not mean anything anymore" (Boyer 1997: 66).

Not only can the notion of the market hold a multiplicity of meanings, these six different market types directly signal a number of important aspects about the structure and functioning, and thus potential impacts, of real world markets other than a market's location and temporal nature. For example, markets involve not single but repetitive transactions of commodities, there must be some form of regularity to market organisation, a monetary system is required by markets to convey nominal prices and pay for transactions, and a legal regime must have the capacity to enforce commercial contracts. This latter aspect is explored by another important contribution to the discourse and warrants consideration in the quest to illuminate the workings and outcomes of real world markets

According to Prasch (2008) the analytical key to understanding market relations lies in the evolving system of property rights and contract law which are the 'foundational institutional structures' of increasingly complex markets. A market is the organisation of exchanges between transactors, a locus of repeated exchanges. Exchange is the fundamental event to take place in a market and is of "some object, promise, service or privilege" (*ibid*: 14). But, and this is a pivotal point for Prasch, not just anything can be exchanged. Before exchange can occur, one's ownership of – or legal authority over – whatever is to be sold must be established. In addition, each party to an exchange must be deemed able or competent to undertake the exchange. Commonly cited examples of those 'ineligible' are children under the age of 18 years, adults declared legally incompetent or, for particular types of exchanges,

those with a criminal record although “history teaches us that conventional definitions as to who qualifies as a legitimate owner of property has changed” (*ibid*).

Thus property ownership – and the right to exchange that property - is not simply about the relationship between ‘a person and a thing’ but “an *artifact* of a complex set of social relations” (*ibid*, emphasis added). Property ownership and exchange is subject to rules and law which reflect prevailing norms, values and technology. The law has almost universally recognised a relationship to property where there is no encumbrance to disposal, that is, there is an exclusive right to control of the property which can be legitimately supported by the state’s police powers. In addition, the rules or conditions of exchanging (selling) property are governed by contract law. Implicit contracts, which encompass many day-to-day activities, are not negotiated or in writing with ‘completion’ usually marked by a receipt. On the other hand, explicit contracts – for purchases like housing or other high cost transactions – can be quite complex documents with the negotiated terms, of a pending exchange, stipulated and, in the event of a disagreement, contract law drawing on precedent and conventional practice will resolve the matter.

Although a highly generalised summary of Prasch’s thesis, some critical insights into markets are immediately apparent. First, the structure and functioning of a real world market is based on an evolving but longstanding system of legally defined rights, property law and contract law. This means that exchange, the fundamental event in a market, is subject to the prevailing legal regime as it applies to property and contracts and in particular, the right to exchange and conditions about the exchange transaction embedded within implicit and explicit contracts.

Harvey and Randles (2002) provide a useful extension to this understanding about the exchange transaction established by Prasch. Building on Polanyi’s concept of ‘instituted economic process’, they posit that the organisation of economic exchange, both market and non-market in modern capitalist economies, can be discerned through two dimensions. The first dimension is the institution of the exchange process, irrespective of the commodity exchanged, which is evident by considering the formation and differentiation of economic agents (i.e. buyers and sellers) in relation to the actual exchange process. The second dimension concerns the differences in the specificities of exchange processes for any given organisation of exchange. This dimension is represented by the parties to the exchange process, the commodities exchanged, and the spatial and temporal nature of the exchange.

Both these dimensions and their respective aspects go some way towards an analytical framework, albeit abstract and theoretical, to peel back the layers of complexity embodied in the exchange process. Harvey and Randles (2002) provide a different level of specificity to analysing markets with their focus on the dimensions of the exchange process.

The abstraction of these dimensions are reduced by Tordjman (1998, 2004) who develops a more concrete form which also leads to an expansion of the aspects alluded to by Boyer (1997) of markets involving repetitive transactions, some form of regularity to market organisation, and a monetary system to facilitate transactions. Tjordman (2004: 20) “envision[s] markets as institutions, i.e. sets of rules and codes of different nature organizing repeated monetary exchanges”. To uncover the domain of markets, and understand their emergence and functioning, she considers the ways in which the objects of exchange are defined, the identity of market participants, the processes of the market which permit exchange to proceed, and how society is shaped by markets.

If a market is a locus of repeated economic exchanges governed by property rights and law, this suggests some kind of formal structures and sets of rules which ‘bring together’ interactions and influence the exchanges between buyers and sellers i.e. rules governing transactions. It also suggests some kind of norms or conventions which enable sellers to propose a price and buyers to accept or negotiate another i.e. rules about the provision of information. The conjunctive operation of these rules induces behaviour allowing continuity of market operation. Tjordman (2004) denotes those rules determining the principles of exchange (the nature of the good exchanged and market participants) as ‘constitutive’ and those rules which implement exchange principles as ‘procedural’. Transaction and information rules fall across both of Tjordman’s categories.

Transaction rules organise the *interaction* of buyers and sellers. In a decentralised (local) market, bilateral exchange occurs. Participants engage directly with each other and usually negotiate a price. Loyalty, trust and friendship are some of the behaviours commonly displayed in decentralised markets (Kirman and Vignes 1992). On the other hand, there is no direct interaction between buyers and sellers in a centralised market. In this case, an institution collects buy and sell orders, and determines the price until demand equals supply. A centralised market will also contain groups of buyers and sellers eliminating the possibility of bilateral exchange but also introducing random interaction “without any chance or preference to transact more often with one agent than with another one” (Tordjman 1998: 17).

Transaction rules also determine who may be buyers and sellers in a market i.e. *eligibility* to participate in a market. Are individuals, organisations or both permitted to be participants? If individuals are permitted to participate, are there specific qualities or criteria that they must meet? If organisations are the market participants, what kind of entity is permitted (e.g. is there a threshold size or a particular type of organisation)? Eligibility to participate in any market is a political decision and reflected directly through exceedingly complex regulatory regimes, competition policies and trade practices legislation. Eligibility to participate in a market is not decided by the individual but by law and, in some circumstances, custom.

Specific behaviours – by eligible participants - may be prohibited by transaction rules. For example, buyers may not be permitted to be sellers at the same time which reduces the risk of collusion, insider trading, and speculation leading to ‘manipulated’ not market- driven transaction volumes and price. Buyers and sellers cannot also be an intermediary to the market who “help the supply meet the demand one way or another” (*ibid*: 21) and may reduce the search costs of clients.

Just as transaction rules influence the organisation and operation of exchange within a market, so do ‘information rules’. Product guarantees, labels, standards, credit ratings, qualifications and other types of information all convey details about the quality of product and reduce the extent of uncertainty about its quality. As Akerlof (1971) powerfully demonstrated, if the quality of a good is uncertain, incomplete information leads to poor selection and could result in market failure. Thus, information about the quality of a commodity improves the functioning of a market but will depend upon what information is available to whom and when. For example, the only product information immediately available to buyers in a decentralised (local) market – such as the oft-cited Marseille fish market - may be that from their own visual inspection. In this circumstance, a buyer may directly interact with other buyers to determine aspects of quality at particular prices before directly requesting prices from sellers. On the other hand, in large centralised markets such as financial or energy markets, all market participants will have access to the same information about prices (e.g. bids, past prices, financial indicators) at the same time and, given the role of intermediaries in these markets, exchanges in anonymity will be the norm. Tjorndman (1998: 19) suggests that non-anonymity reduces transactions costs due to stable buyer-seller relationships built on habit, trust and loyalty.

In sum, these rules establishing market participation eligibility, the form of interaction among participants, information about product quality, as well as the property rights regime which defines what may be exchanged, induce behavioural responses to facilitate the operation of a market and its continuity.

Each of the above contributions to the discourse about markets helps progress and deepen our understanding of the organisation, functioning and outcomes of actually existing markets in capitalist economies. Boyer (1997) provides a typology of market types. Prasch (2008) gives us the legal institutional framework of the exchange process irrespective of market type. Harvey and Randles (2002) take us further into the actuality of the exchange process and Tjordman (1998, 2004) presents a more concretised form of market processes of organisation and exchange. Drawing from these propositions about types of market in space and time, the influence of property rights and contract law, the dimensions and embedded behaviours shaping the organisation of exchange, I contend that markets have twelve distinctive properties. These properties range from the relatively simple to the more complex and are not mutually exclusive, but will help us transcend from the abstract to the more concrete if the intent is to move beyond the theoretical to conduct empirical analyses of real world markets.

The twelve distinctive properties of markets are:

1. A market is a location where buyers and sellers interact.
2. A market may be a physical location but does not need to be as evidenced by eBay, an internet auction, and online payment for goods and services.
3. Goods may be bought and sold on local or global markets.
4. A commodity market requires a monetary system.
5. Markets may be for intermediate or final goods.
6. The fundamental event in a market is exchange – of some object, promise, service or privilege.
7. A market is a locus of repeated exchanges.
8. A legal system of property rights determines what may be exchanged in a market.
9. Implicit or explicit contracts govern the conditions under which property is exchanged.
10. Rules about transactions organise how buyers and sellers interact, and who may be a buyer and a seller.

11. Rules about the provision of information (including about the quality of the good) enable sellers to propose a price and enable buyers to accept or negotiate another.
12. Organised behaviour, induced by transaction and information rules, provides continuity to a market's operation.

These properties of markets encompass rules about transactions and information, the nature of goods, mechanisms to facilitate exchange, property rights and space. More significantly, these properties, I suggest, foreshadow a far more extensive and concrete expression of Tjordman's (2004) 'agenda of questions' which must be addressed if we are to develop understanding and knowledge of the structure, operation and outcomes of actually existing markets.

The analytical questions that we can pose from the twelve distinctive properties of markets include the following:

- (a) What is the commodity 'bought and sold'? How are these goods or services defined? To what extent have these definitions changed, or are evolving, with the market's 'virtual canonization'?
- (b) Who are the market participants (individuals, groups or organisations)? Who transacts with whom? Are intermediaries involved?
- (c) What are the 'rules' or protocols which determine eligibility or ineligibility for ongoing access to a market? Are there legal and political decisions, or compromises, which determine who participates? What must a participant do to meet eligibility criteria and maintain ongoing market access?
- (d) What forms of interaction take place between buyers and sellers, and other market participants? Are particular behaviours forbidden? Are there implicit rules influencing the behaviour of market participants? Are penalties imposed for breaches of market behaviour?
- (e) How, and where, are market transactions performed? Is there a physical or virtual market location and how is this organised? Is the sphere of interaction local or global? Must participants meet any obligations or criteria to perform market transactions?
- (f) What are the institutions, organisations, legislation or associations that organise the functioning of a market? What are their responsibilities? How do they enforce market operations? To what or who are they accountable?

- (g) How is price determined? Are prices set outside or within the market? If it is a price-setting market, does this lead to different bilateral prices?
- (h) What is the market's form of competition? How many traders? What is the ownership structure in the market? Is there evidence of market power?
- (i) What information is available to whom? Where is it available? What technology and skills are needed to access or process market information? What is the impact on market participation if information access is precluded in some way?
- (j) Are there interrelationships between a primary commodity market and other markets? How are these relationships organised? What are the implications of these relationships in terms of market operation, market participation and market outcomes?
- (k) What is the role of the state in terms of, but not limited to, the market's organisation and operation, and determining the eligibility of participants?

It is my contention that these questions form a cogent analytical grid which can be used to interrogate the structure, operation, participants, behaviours, rules, price setting and more of a market and thus generate a substantive, realistic picture of actually existing markets.

This analytical grid has been applied to five markets of one liberal market-based economy, Australia (Chester 2010). Four of these markets are longstanding with providing goods and services previously provided directly and solely by government (electricity, water, housing for low-income Australians, and services for the unemployed). The electricity market has mixed ownership, some exposure to competition, and a centralised wholesale trading market. Government authorities dominate the urban water market and trading markets exist for rural water supply. Government funds public housing stock and provides cash rent assistance for those in the private rental market. Private and not-for-profit providers deliver employment services for the unemployed. The fifth market analysed is currently being established (carbon trading). A cap-and-trade scheme has been proposed with permits to be auctioned and 10-year transition assistance to the largest industrial emitters of carbon and other pollutants. All five markets have, or pose, a widespread impact across the Australian community.

The Australian market analysis unequivocally demonstrated a very different picture of the operation and outcomes of markets from that promulgated by mainstream economics and deeply embedded in public policies. Eligibility to participate in a market is not met by the

setting, or payment, of a price but by first meeting pre-determined criteria set by regulators. Ongoing market participation is not assured even if eligibility criteria are satisfied and payment is made for a good or service. Government is directly influencing the demand and supply sides of each market and regulators actively determine prices in each of the five markets analysed. Intermediaries have a strong presence in all markets and most commonly as market operators. The overwhelming form of interaction between buyers, sellers and intermediaries – all market participants - is via the internet. Quite complex and detailed information is available to buyers relating to their participation, obligations, payments terms, penalties, and performance data about suppliers. There is also increasingly complex product information such as, for electricity, a range of domestic tariffs, green energy deals, social concessions, as well as incentive and reward deals. Each market is structured around a very complex legislative and regulatory regime. There is strong evidence of different market types and the extent of competition includes contested and managed markets, monopoly franchise, oligopoly and imperfect competition. Government is a very dominant participant in all markets, performing multiple roles as regulator, owner of significant supplier assets, manager of stock, manager of contested markets, market operator, and buyer. Despite government interventions, and significant price increases, the key outcomes in the majority of markets analysed show that supply is not meeting demand and one market (housing for low-income Australians) is evidence of chronic market failure. Market power and concentration were found also to be strongly evident in the majority of markets analysed (Chester 2010).

The analysis also provided strong affirmation that price is not the coordination mechanism promulgated by the mainstream, there is not one but a spectrum of contemporary market configurations and exceedingly complex governance regimes as observed by Boyer (1997) and Nelson (2005), and each so-called market is comprised of layers of multiple markets somewhat analogous to a set of Russian nesting or *babushka* dolls. For example, the electricity market is made up of generation, transmission, distribution and retail markets, each of different size. The generation market includes markets for wholesale trading, non-scheduled generation, and generation from energy renewables. There is also a complex web of interrelationships between markets. Energy provides a further example with the operation of the electricity retail market strongly related to the organisation and operation of markets for meters, the retailing of gas and credit services, hot water systems, swimming pools, heating and cooling systems, energy efficiency appliances and lighting. These market interrelationships raise issues warranting closer examination such as the cumulative impact of market outcomes

on end-use consumers and the potential flow-on consequences, like a row of falling dominoes, if one market experiences significant disruption.

Appendix A presents a high-level summary of the key structural features, interactions and outcomes found in the five markets described above.

4 Concluding comments

In the 1930s most economists were of the view that markets were self-equilibrating, not the cause of economic instability and government should, as they did, let markets function free of institutional impediments. Post World War 2, Keynesian economic management rejected the notion of the capitalist economy having a self-correcting ability. However, with the ascendancy of neoliberalism from the 1970s onwards, the rhetoric of mainstream economists and policymakers has strongly admonished government intervention as detrimental to efficient market operations with the market advocated as the solution for virtually all economic and social problems.

More and more reliance has been placed on markets by government to solve an increasing range of issues notwithstanding the questioning by mainstream theorists of the proclaimed efficiency of markets. Yet neoclassical economics has very successfully portrayed the normative ideal of the market, framed around a set of abstract assumptions, as synonymous with the economy and capitalism. Moreover, this normative ideal has become embedded in public policies, transforming markets which have traditionally been the domain of state intervention and which determine, to a large extent, the well-being of society.

Although markets are not the only institutional arrangement for organising economic and social life, we need to understand the market's contribution to society's well-being to inform the debate about the relative merits of different forms of provisioning. That understanding must be grounded in robust empirical analysis of the outcomes of markets that impact on well-being. Market outcomes reflect the organisation and functioning of those markets. The normative ideal of neoclassical economics cannot elucidate the organisation, functioning, outcomes and implications of real world markets.

The market is a location for repeated exchanges between buyers and sellers which may be physical or virtual, may involve intermediate or final goods, may be local or global and

which is underpinned by property rights, implicit or explicit contracts, rules about transactions and information creating organised behaviour and continuity of operation. It is these distinctive properties of markets which signal a set of questions which must be addressed if the objective is a realistic understanding of the organisation, functioning and outcomes of actually existing markets. This is the analytical framework which this paper has sought to develop.

The analytical framework posited explicitly recognises the different types of markets that can be discerned, the relationship to property rights, and the dimensions and behaviours shaping the organisation of exchange through the delineation of twelve core properties of markets. These properties enable progression from the theoretical to the empirical by establishing a set of questions to frame and guide a cogent empirical analysis.

Boyer (1997: 70) has argued that the organisation of a capitalist economies, which attribute a leading role to competitive markets, can only be explained by ascertaining: the institutions, legislation, organisations, or interactions that organise the functioning of various markets; the series of commodities for which the supply and demand of is heavily determined by market institutions, including regulation by the state; and the forms of competition according to the number of traders, ownership distribution, market power, and the mechanisms to resolve capacity issues or structural changes. These are indeed important 'keys' to understanding and explaining the *existence* and *operation* of markets in a capitalist economy. But if we are to understand the impact on society's well-being of markets, it is necessary to go to a further level of disaggregation to consider also the *interactions* and *outcomes* of actually existing markets. If we are to understand the relationship to, and impact on, society's well-being, market interactions and outcomes will be a necessary contributor especially for those markets delivering essential goods and services and shaped by public policies.

In addition, a far more informed understanding of the societal implications of market provisioning will enable the development of alternatives to public policies delivering markets for essential goods and services based on the abstract notion of markets provided by neoclassical economics. The foregoing discussion has clearly indicated that the market is such a complex institution that it cannot be distilled or equated to the sum of bilateral relationships as is neoclassical economics' want. A market's 'constitution', functioning and impact on well-being can only be understood within the context of its empirical complexity as well as by

reference to other markets given the diversity and specificities of each. The analytical framework posited in this paper contributes a basis to do that and may, as a result, help shift the debate, advocated by Lane (1991) nearly two decades ago, from the relative merits of markets and states to one whose axis is the market's contribution to well-being and human development.

Notes:

1. A much earlier version of this paper was presented to the 8th Annual Conference of the Society of Heterodox Economists, 7-8 December 2009, University of New South Wales, Sydney, Australia.
2. Stiglitz (2000: 87) also argues that even if Pareto efficiency is achieved, government intervention may be warranted to achieve greater equality of income distribution and/or if the government “knows what is in the best interests of individuals”.

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Appendix A: Comparison of the structural features, interactions and outcomes of five Australian markets

	Electricity	Water	Employment services for the unemployed	Housing for the low-income	Carbon trading
What is the commodity?	Electricity supply	Water supply	Job referral, job search training, training/work experience, individual case management	Low-cost housing in private and public markets	Permit to pollute
What is the ownership pattern?	Mixed	Public	Private	Mixed	Public
Who are eligible buyers (end-users)?	All organisations, companies, and households connected to the grid	All organisations, companies and households connected to water supply system	Federal Government on behalf of those receiving unemployment benefits	Those receiving income support payments and base level family assistance	1000 entities assessed to be largest emitters
How do buyers (end-users) maintain market access?	Pay connection fee plus access and usage charges by supplier-determined time and method	Pay usage and access charges by supplier-determined time and method. Pay agreed price for exchange of water rights	Retain eligibility for unemployment benefits, meet reporting obligations and register with <i>Job Services Australia</i>	Retain eligibility for income support, and base level family assistance. Meet thresholds for rent assistance and eligibility for public housing	Eligible to buy permits based on annual regulator assessment of emissions from company supplied data
Who are the eligible sellers and how do they maintain market access?	NEM participants must register, meet/maintain strict prudential criteria and pay annual fees. Retail companies must be licenced by State government regulators to operate in respective jurisdictions.	State and local government authorities. Sellers of water entitlements or allocations	Providers contracted for fixed 3-year term	State government authorities provide public housing stock. Federal Government provides rent assistance payments and incentives to stimulate construction of new rental stock. Private sector must meet criteria for financial incentives.	Government will auction permits

Appendix A: Comparison of the structural features, interactions and outcomes of five Australian markets

	Electricity	Water	Employment services for the unemployed	Housing for the low-income	Carbon trading
Demand-side measures provided by government?	NEM allows for withdrawal or 'load shifting' by large market customers when wholesale price passes a threshold e.g. aluminium smelters	Restrictions on use enforced, in part, by financial penalties. Water efficiency information campaigns. Subsidies to install water-efficient appliances. Application of 'scarcity' pricing		Rent assistance for those in private rental market. Rent rebate for those in public housing.	Transitional assistance for coal-fired electricity generation (free permit allocation) and EITE industries (partial free permit allocation) for at least 5 years. Tax deductibility of permits.
Supply-side measures provided by government?	Limited augmentation of govt-owned generation capacity. 10-year projections of adequacy of generation and transmission capacity to meet forecast demand	Construction of desalination plants. Limited measures to increase recycling. Trading of entitlements and allocations	Competitive tender to provide services for a contracted period	Provision of public housing stock. Funding of community housing. Tax rebates/subsidies to private sector to construct new rental dwellings for low-income	Government sets up and maintains permit auction
How is price determined?	Half-hourly wholesale price set by market operator but capped at \$10,000 per MWh Transmission and distribution: regulated Retail: regulated for majority of households until evidence of 'effective competition'	Urban: State regulators set access and usage charges in respective jurisdiction. Trading: price agreed through exchange	Performance-linked payments set by Government as part of competitive tender.	Rate of rent assistance (and eligibility) subject to annual Federal budget process. Rent rebate subject to National Affordable Housing Agreement. Other supply-side measures determined within Federal budget process.	1st year fixed price of \$10 per tonne of CO2 (set by government) then floating price.

Appendix A: Comparison of the structural features, interactions and outcomes of five Australian markets

	Electricity	Water	Employment services for the unemployed	Housing for the low-income	Carbon trading
Does buyer (end-user) pay price?	Yes. NEM customer pays price set by market operator. End-user pays price charged by retailer	Yes. End-user pays price charged by supplier or established through trading	Price paid by Federal Government on behalf of end-users, the unemployed	No. Federal Government sets and pay all 'prices' of rent assistance, public housing stock and subsidies to private sector	Yes. Permit buyer pays 1 st year fixed price and then auction price
How do buyers (end-users) and sellers interact?	NEM market operator acts as intermediary between generators and distributors. Direct retailer-consumer interface via internet, billing or phone.	Urban: Direct retailer-consumer interface via internet, billing or phone. Trading: through water exchanges	Online tender process. Unemployed persons register online, meet with provider and maintain contact via internet and in-person meetings.	Online or direct interface with Centrelink, State housing authorities, community housing providers.	Arrangements for clock auction envisaged to be online (like electricity trading).
What information is provided to buyers (end-users)?	NEM market operator: forecasts capacity and demand, NEM prices Retailers: consumer obligations, price, billing, payment terms Regulators: performance reports of regulated monopolies, outage investigations, price determinations	Retailers: Consumer obligations and rights, price, billing, payment terms. Water brokers: price determination, rules for lodging offers, fees, trade eligibility, payment terms. Regulators: performance reports of regulated monopolies, rules for water brokers, price determinations	Details of tender and outcomes. Locations of providers and services. Obligations and reporting requirements if unemployed and penalties for breach	Eligibility rules for rent assistance and scale of payments. Eligibility for public/community housing. Application process and details required. Ongoing reporting requirements.	Expected to include forward calendar of auction dates, rules for submitting/withdrawing bids, number of permits to be sold at each auction, past prices paid.

Appendix A: Comparison of the structural features, interactions and outcomes of five Australian markets

	Electricity	Water	Employment services for the unemployed	Housing for the low-income	Carbon trading
How is information provided to buyers (end-users)?	Retailers: websites, telephone, direct mail National and State Regulators: websites	Retailers: websites, telephone, direct mail National and State regulators: websites Water Brokers: websites	Government websites. Centrelink offices. Direct mail.	Government websites. Centrelink offices. Direct mail to income support recipients	Government website.
What are the main features of the regulatory regime?	National Electricity Rules (1251 pages). Australian Energy Market Operator. Australian Energy Regulator. Australian Energy Market Commission States: Regulator for each jurisdiction	National Water Commission. Murray-Darling Basin Authority. COAG Agreements.	Federal Department of Employment, Education and Workplace Relations. Centerlink.	Centrelink. Federal Department of Family, Housing, Community Services and Indigenous Affairs. National Affordable Housing Agreement. National Rental Affordability Scheme. Social Housing Initiative.	800-page White Paper. 700+pages of legislation and explanatory memoranda. Australian Climate Change Authority. Australian Carbon Trust. National Greenhouse and Energy Reporting System. Assessment rules for EITE assistance.
What is the extent of the market or form of competition?	NEM: managed market Generation: oligopoly Transmission: monopoly in each State Distribution: monopoly franchise in each State Retail: imperfect competition	Urban: monopoly franchise Rural: contested market	Contestable managed market. Providers dominated by handful of large private companies	Public rental: monopoly Private rental: contested	Managed market
What is the role of government	NEM operator and regulator. Price regulator for transmission, distribution and retail. Owner of substantial	Owner. Regulator. Buyer	Regulator. Manager of contested market.	Owner/manager public housing stock. Regulator of community housing. Cash provision of rent assistance. Funding of	Market operator. Price setter of 1 st year price. Regulator (assessor of permit eligibility and EITE assistance; sets annual

Appendix A: Comparison of the structural features, interactions and outcomes of five Australian markets

	Electricity	Water	Employment services for the unemployed	Housing for the low-income	Carbon trading
	generation, transmission, distribution and retail capacity.			new public housing stock. Provision of tax and financial incentives to stimulate construction of low-cost private rental housing	cap). Buyer through Australian Carbon Trust.
What are the key market outcomes?	Wholesale price volatility not reflecting demand or stimulating investment. Electricity derivatives market to manage wholesale price risk. Generators exercise market power. Retail consolidation. Retail and generation re-integrating. Significant price increases for households. Increasing customer complaints and disconnections. Generation capacity inadequate for forecast long-term demand	Inconsistent definitions of property rights across Australia. Markedly higher charges paid by all water consumers. Desalination plants have required purpose-built energy capacity. Long-term urban and rural supply capacity is under severe threat. Severe deterioration of Murray-Darling Basin	Less costly than previous sole provider provision. High compliance and administrative requirements for providers following onerous/costly tender process. Performance based payments have led to 'parking' and 'creaming'. Limited success for many long-term or difficult-to-place job seekers. High reliance on unemployed having internet access and computer skills	More than 50% of low-income renting households in housing stress. Growing public housing waiting lists. Supply of public and private rental stock not responding to chronic excess demand for cheap rental housing. Stimulus measures yet to generate forecast stock increases in low-cost rental housing which barely represent a third of waiting lists for public and community housing	Complex scheme. Only 75% emissions covered. Household energy costs to rise by \$6-7/week. Compensation to income support recipients, 1 year after market start. Reduction in fuel tax if fuel price increases. Coal-fired electricity generation emissions assumed not to fall before 2033. Budgetary cost of \$4.8b. TNCs benefit most from free permit allocations and EITE assistance. Potential for large price swings