Abstract
The methodological implications of the interaction between general economics and property economics is explored. It is argued that property economists have uncritically adopted a methodological position from general economics that is problematic. The ideal relationship between the two disciplines is for property economics to contribute to the parent discipline in areas that it has expertise and experience. These include issues regarding the economics of property and the appropriateness of quantitative methodology. Shortcomings in the understanding of methodology in property economics are considered.

Keywords: Methodology in property economics, metaphysics, Aristotle, classical sciences

Introduction
Property Economics inherits much of its basic theory and method from general economics. Shortcomings in the theory and method of economics therefore should be of great interest to property economists. The relationship between general economics and property economics can operate in the opposite direction as well. Property economics has the distinction of placing primary focus on property, and in particular land property, especially as it is understood as a primary factor of production. If general economic thought contains fundamental errors in its understanding of property in general, and land property in particular, then it is more likely that property economists will be the first to recognise and correct it. This suggests that as property economics matures as a discipline, it is to be expected that it should develop a lively interest in aspects of general economics that are in need of review and actively contribute to its development, especially with respect to the economic understanding of property and land property.

Unfortunately, this creative two way interaction between the disciplines tends to be avoided in practice. Property economists have tended to adopt the theory and method of the parent discipline and concentrate their academic energy on studies that attempt to reveal specific technical parameters of property markets and processes. Deborah Levy’s (2003) study of publications in the property economics discipline demonstrated this tendency, revealing that the overwhelming majority of published property economics articles used quantitative methods. These methods appear to have
been adopted uncritically from other disciplines, especially general economics and the social sciences. They are now so tightly associated with academic rigor that few property economists question their appropriateness or are familiar with the controversies or complications that are associated with their adoption in their parent disciplines.

These complications and controversies cover several important areas including the following:

- Whether current quantitative methods are appropriate tools for gaining knowledge in property economics.
- Whether there is a role for non-quantitative methods in the gaining of knowledge in property economics.
- Whether the currently accepted notion of property, especially in land, is the appropriate concept for property and the land factor.
- Whether conceptual theories in property economics constitute genuine knowledge, or are merely subjective opinions.
- The notion of property value, its relationship to investment value and immediate market price and the fundamental issues surrounding concepts of perfect market competition, market efficiency, and their importance for the validity of higher level economic theory.

All of these areas, and others, continue to be problematic for property economists, but in general debate on them tends to be ignored as belonging to general economics. Despite this, property economics is in an excellent position to gather insights into these issues drawn from both the positive and conceptual studies that compromise much of its intellectual life. As a focused sub-discipline of economics, property economics studies the nature and economic behaviour of property and its conclusions have the capacity to inform the parent discipline of aspects of deficiency in the received theory and method.

This is important because the discipline of economics is perhaps the most contentious of the social sciences. Within it there is wide debate concerning almost all of its principles, both between the various schools of economic thought, and between economists in general and the wider community. Despite the importance of economic factors in global life, human understanding of it appears to be singularly equivocal. From the nature of the economic actor (O'Boyle 2005), to whether economics is a (moral) science or not (Boettke 1998; Crespo 1998) and even the appropriate model for the market (Robinson 1969) every aspect of economics appears to be in the grips of fierce debate.

**Theory and Observation in the Body of Knowledge**

The dominant body of theory, loosely a continuation of the tradition of economic beliefs first assembled for the English speaking world by Adam Smith (1778) in the eighteenth century and reformed by Alfred Marshall (1890) and others at the beginning of the twentieth is broadly accepted, but internally problematic. Lawrence Boland (1992; 1997) demonstrated conclusively the internal contradictions within the Marshallian system that make it impossible for its core premises, principles, and conclusions to form a logically cohesive body of knowledge. If the accepted discipline of economics is based on logical fallacy, then it immediately loses all
possible credibility as a science, regardless of what empirical support individual components of its corpus may glean. This internal inconsistency should be viewed by economists as the most important problem to be dealt within the discipline. Unfortunately, most economists deal with the problems by ignoring them and retreating into safe research programmes that gather hard-won data to validate intuitively banal theories. Even the dominant body of theory does not provide an integrate profile. Several distinct schools exist with different explanatory systems and policy directions. When the US Federal Reserve Bank attempted to tackle USA’s inflation problem in the mid 1980s, practical policy was not driven by precise quantitative economic prescriptions but by the power politics in the corridors between the monetarists and the neo-Keynesians (Grieder 1987). It is instructive that the single most powerful economic institution on the planet does not rely on quantitative economic conclusions, even though the discipline espouses the necessary merit of quantitative/mathematical methods in the analysis of economic relationships.

A review of texts on economics reveals a curious balance between theory and empirical analysis. Generally, the outstanding contributions to the discipline, from Smith to Keynes, have used empirical analysis sparingly. Very few significant beliefs within the discipline have been introduced as the result of empirical studies. The nature of the market, especially the fundamental of the supply and demand functions, marginalism, most major elements of macro-economics, are all taught as theoretical concepts with relatively secondary empirical support, and in some cases, negligible empirical support at all. An outstanding example of this is the marginal theory of the firm that underpins the supply function, and hence the whole conception of the market. Despite being an advocate of marginalist theory Richard Jones (1976) admitted that it had no empirical support whatsoever and explained in some detail why its internal contradictions made it impossible to find in the real world. If the corpus of belief that constitutes the discipline of economics has been largely framed out of theory, it seems peculiar that academic energy is now dissipated in quantitative studies and discourse at the theoretical level is actively discouraged.

Contributions to the Property Economics discipline, as gauged by scholarly journals, are overwhelmingly quantitative (Levy & Henry 2003). The bulk of additions to the body of knowledge appears to consist of research into market case studies, time series forecasts, and opinion surveys. While these projects do provide outputs that have commercial value, they are essentially technical exercises, with more emphasis on description than explanation. Quantitative analysis of historical market data does not explain the processes that gave rise to the trends, it merely describes its patterns. In the absence of more reliable indications of future direction, forecasting is not more than the projection of the pattern into the future on the assumption that the future will be like the past. Genuine science is about explanation, about identifying the causes and the mechanisms that give rise to particular outcomes. It is questionable if most quantitative market analysis methods actually do this, even though they may use titles that suggest that their aim is the identification of causal factors.

**Post-Enlightenment Thought and Truth**

Any insights into causality from quantitative studies comes from the connection between observed patterns of events and some theoretical construct. The quantitative identification of patterns only reveals correlation, some chance conjunction of disparate events. Causality is never observed. David Hume took this fact to its conclusion. He believed that the world was merely material, and since material things
can all be observed in some way, nothing could exist that was not observable. Much of our current science operates within this assumption, including disciplines such as economics. Within Humean thinking, if causality cannot be observed then it cannot be known and we cannot be sure that it exists at all. If theory has no real existence beyond being a convenient way to guess the future of the world, it is ultimately subjective, that is, it is no more than the belief of its holder, an opinion. It does not necessarily have any logic, beyond that required to support its retention as a belief. There may be other reasons for its retention, such as personal benefit. In a society of self-interested individuals personal benefit is a major motivation, which may use logic, or more probably rhetoric, for its own ends. The aim is not to find what relationships exist as causal elements in the world, but which ones benefit the self when propagated as truth. This conclusion was grasped by Nietzsche who recognised that within modernity "...aim of knowledge is not to know, in the sense of grasping absolute truth for its own sake, but to master" (Copelston 1965, p.408). It is also found as a core belief within postmodern thought (Foucault 1976).

Few property economists understand the philosophical background of their discipline and the way that choice of methodology ultimately leads to unpalatable conclusions about human relationships. Foucault’s position is quintessential postmodernism but reveals a perspective on the object of academic effort that is singularly distasteful when he claims "We are subjected to the production of truth through power and we cannot exercise power except through the production of truth." (Foucault 1976, p.230). Do property economists produce truth as an exercise of power? Is truth a malleable substance produced by human whim and for human self-interest? Is this why property economists shun theoretical or conceptual works as no more than opinions and therefore suspicious? Does the matrix of accepted theory, provisional and partial as it is, have any objective merit and if not, why do quantitative studies usually defer to theory in their discussion of results? These are all questions that property economists should have answers to, but do not seem to discuss at all.

Reliance on quantitative methods provides a safe haven from these methodological questions. The quantitative researcher does not attempt to initiate theory. The typical research objective is to identify and quantify the supposed causal factors for some variable of interest. In practice this tends to rely on accepted theory, perhaps adapted for a particular circumstance, and the intellectual effort is applied to gathering positive facts. In gathering facts the researcher offers no logical screening and the truth of the outcome is indisputable. These observations are always provisional and limited by circumstance. Conclusions drawn from them can only be applied to other situations through induction. They can never of themselves constitute true scientific knowledge, only knowledge of a particular historical circumstance with suggestions for broader application.

The quantitative researcher therefore can rest on the certainty that positive research yields true, though extremely limited, knowledge of particular contingent historical events. While quantitative research may support theory, it can never prove it. The only certain knowledge that can flow from empirical research is rejection of a theory through evidence that could not exist if the theory were true. In logic this is known as modus tollens rejection of a theory. Despite being able to chip away at theories that are shown to be false, empirical induction cannot show a theory to be true.

From this follows the opinion that theories do not have a knowable truth value. They are only opinions.
Nowhere is this more evident than in the area of ethics in property economics practice. When Stephen Roulac (1999) collected outstanding contributions to professional ethics for property economists three chapters of fifteen were quantitative studies. Does this mean that the other twelve were merely opinion pieces? Of the three quantitative methods chapters, Okoruwa & Thompson (1999) is illustrative of quantitative methods in ethical thought. The authors surveyed the ethical opinions of a number of brokers and reported inferences. The paper was true and factual regarding its presentation of the opinions of a particular set of brokers, but offered no coherent analysis of the rationale or implications of these opinions. It could not be used by readers to form an ethical argument, beyond an ethical alignment with or against the trends in the survey. The majority of the remaining articles would not pass referees in many property economics journals as academically rigorous contributions to the discipline as they are merely theory and therefore only opinion pieces. This is despite representing perhaps the leading thought globally on this issue.

A close examination of the claim that all theory that is not grounded on observation is subjective reveals that it is highly problematic. In the first instance, it is not supported by observation. Secondly, there are many ways of proving the objective truth of a thing apart from observation. Thirdly there are many things that are held to be true, and may be shown to be necessarily true, that are not proven through observation. These problems deserve closer attention as follows:

1) It is impossible to observe all things, therefore it is not possible to say there may not exist objective theory merely because it has not been observed. Moreover, one could ask upon what observation was this claim made? Whatever set of observations were set as evidence, it could be argued that there could be an additional observation, outside of that set, that was counter to the claim. Hence the claim could never be upheld by observation.

2) Observation is one method of supporting the truth of a claim, but there are others. Logical inference from other known truths is one. Some people hold that there are very few things known to be true, therefore the applicability of this approach is limited. This does not deny that there are other methods.

3) The truths of mathematics are seldom validated by observation and never proven by it. Simple propositions like one plus one equals two may be illustrated experimentally, but their truth actually derives from the meaning of the terms in the proposition. Complex identities such as the fifth derivative of $x^{\cos(x)}$ are known with certainty to mathematicians but cannot be found through observation. Integration in n-dimensional space is a more general example.

Much of this rests on recognition that many things exist that are not material. Mathematics is a good example, but all conceptual knowledge exists beyond the material expression in which it may be occasionally encountered. Human use of language reflects this recognition. Most common nouns and verbs represent concepts that occasionally are found in fact. The word “chair” for example may be used meaningfully in conversation without meaning an observable thing. It is not subjective merely because it is not encountered through observation. If I was to ask you to find a chair in the next room, I have specified a thing conformed for humans to sit upon, not any particular size, colour, composition or shape. When I say tables make poor chairs I am not expressing a subjective opinion but a conclusion drawn deductively from the truth that things that have the qualities of tables are poorly conformed for humans to sit upon. The most alarming thing about these instances of
things existing that are not observed is that not only do they exist and form an integral part of our human existence, but their existence is far more durable than material instances of them. If all the chairs in the world were destroyed tomorrow, the concept of chair would remain, or for that matter the concept of chair predated the human experience of chairs. The physics of the wheel existed conceptually before humans existed and will exist long after they have gone.

Theoretical discourse often has the form of mathematical or logical discourse and has more in common with these instances of objective reality that exist knowably beyond observation. That is why economics and property economics thought rests on a matrix of theory, most of which is only vaguely supported by observation. The tendency of the discipline to adopt uncritically the short-sightedness of general economics and modernity in general does violence to this reality.

**Methodology and Method**

The narrowness in methodology being adopted within property economics reflects this short-sightedness. Most encounters with the term “methodology” in the discipline follow the definition found in the Free Online dictionary of Philosophy quoted at the beginning of the paper. Few property economists know the difference between methodology and method and use the former as a pretentious way of discussing the latter.

Methodology is the science of method (Oxford concise dictionary) where method refers to a particular strategy for gaining knowledge. Methodology may also be used to refer to a specific theory for gaining knowledge that admits a particular set of methods. Methodological investigation involves the study of how knowledge may be best gained. As a science it is closely related to epistemology (the science of knowledge) and is usually closely related to metaphysical issues. Different sciences (physics, chemistry, medicine, etc.) often have specific methodologies or suites of methodologies. Academic study in any specific science and topic should begin with an investigation of the methodological issues that should be considered in gaining the type of knowledge pertinent to the topic and science. Once a methodology is selected, and argued to be suitable, a specific method should be adopted.

In property economics, there tends to be negligible discussion at a methodological level, and the term is inappropriately used as a heading to discuss method. The dominant methodology is quantitative positivism and few property economists are aware that this particular methodology is limited in its application or that there may exist others better suited to pressing questions in the discipline.

**Conclusion**

Largely this methodological myopia is hobbling the discipline. There is insufficient debate and development regarding methodology and as a result pressing questions in property economics cannot be dealt with adequately. This is turn limits the potential contribution of property economics to the parent discipline. It is time that methodology be flagged as a topic for debate and development within the discipline. Methodological approaches found in related disciplines such as law and the social sciences should be considered, along with the introduction of discourse on the deeper philosophical issues that underpin this debate. This will require the introduction of broader intellectual resources than are currently common in the discipline, but the result will be a quantum improvement in its relevance and potential.
Reference List


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1 *Positive* in this context means arbitrary, in the sense of put before the observer and capable of being observed and *fact* technically is a contingent truth taken through an observation of the world as it happens to be, not something that is necessarily the case. A positive fact is that Australia is in the southern hemisphere. Positive facts may be contrasted to necessary truths, such as “a square circle cannot exist.”