

# **BUILDING LAND MARKETS**

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## **Abstract**

A primary driver in land titling and administration improvement is facilitation of a land market. Land markets are difficult to establish and to manage. Titling on its own will not create a land market, nor will a land administration system unless it is connected with the way participants think about and organise their land. Indeed, the difficulty is compounded because very little is available to explain how a land market works, particularly to identify non-technical components essential for market success. This framework article explains land markets in terms of five evolutionary stages. The ingredients of a complex and developed land market, especially social processes and cognitive capacities, are identified.

## **Keywords**

Land markets, land rights, commodities, land administration system (LAS)

## **Introduction**

This article explores the evolution of land markets. It identifies the important role that cognitive capacity plays in complex markets. Economists have provided the bulk of the existing literature; however, land administrators, lawyers, philosophers and social theorists have a great deal more to contribute. This article is not about the economic theory of markets. Rather, it draws on the expertise of land administration and lawyers and investigates markets from of view of the infrastructure underlying their operations. The approach goes beyond land rights and property theories by looking more at the institutional and social capacities that are essential to translate a simple land market into a complex market in which highly abstract commodities are traded.

## **Importance of Land Markets to Land Policy makers**

Land markets are a goal of governments and international agencies because of a set of related observations: economies with successful markets generate more wealth than those without them, they are more stable, and offer more opportunity to their members. In the past these observations were debated but the failure of centralized economies where land was excluded from markets has all but silenced dissenters. This is not to argue that policy makers should assume that land markets and the paraphernalia that goes with them are **always** desirable: sometimes they clearly are not.

Markets are not about **land reform** in its usual meaning of **land redistribution**, that is, transferring land from one person to another so you can achieve a policy goal of better distribution (King, 1977). Nor are they about titling squatters or informal land occupiers. Processes of land distribution reform and titling of informally or illegally held land are tied in with politics and are quintessentially areas for government intervention rather than market operation. But land reform programs can be used to stimulate or tie into land market policy (Deininger, 2003).

Most attempts to build land markets revolve around technical programs. Land titling and registration projects remain a key ingredient in international assistance programs and government activities. Most land administration project designs are about creating rights to convert an informal or partially unannounced relationship with land into more secure land rights and establish the administrative structures to ensure rights are knowable, recognized and permanent – and eventually tradeable. Most money in land titling goes into adjudication of boundary determination and mapping. Socio-economic goals identified for these projects, including increased gross national product or economic growth, improved income sharing, address of income disparity and poverty alleviation, are derived from the assumption that the technical programs will influence market activity. Policy makers assume there is a direct relationship between the processes involved in land administration (particularly registration programs involving owner and parcel identification) and automatic

improvements in the local land market. After all, developed countries support successful land markets with land administration systems.

Project experience raises a number of concerns about technical focus. The resulting literature shows a great deal more caution is being taken to ground project design and to implement market goals in local reality. The failure of some land administration projects to deliver market outcomes, the call for protection of land use by indigenous and poor communities, the recognition of the contribution of collective and communitarian land uses to human well-being, and identification of functional, but non-marketable, tenures to secure living and work spaces especially for informally held land, have stimulated analysis of the place of land markets in human affairs. Moreover, attempts at market reform often involved importation of or colonially inspired application of one of the two major legal systems: common law and civil code based systems, and adaptation of local tenures to a globalised generic form of ownership, leaving inevitable legacies of misfits that had to be addressed.

The enigmas of assisting development of a land market through a land registration program were particularly raised by the large scale land administration project in Indonesia. Even with universal registration, land market development would, on objective assessment, remain problematic particularly for two reasons. The vocabulary of land rights created by Indonesia's Basic Agrarian Law (5/1960) is inadequate, and conceptual capacities capable of underpinning a modern market are under developed. Indonesia's experience is not unique. Poor land rights and undeveloped conceptual capacity are ubiquitous among developing nations and remain serious impediments to market formation and operation.

More definitive identification of the social and cognitive ingredients of land markets will enliven the debate about project design, increase effectiveness of market supports, and assist identification of market boundaries. Identification of local factors requiring protection and local needs for institutional capacity building (government, departmental and individual) require both more flexible and particular project designs and reform strategies. The way forward should

incorporate building an appropriate belief system in the intended public and empowerment of individuals and community groups.

### **Three Basic Ingredients of Successful Land Markets**

Given the popularity of modern land markets, one would have imagined that there was a well sign-posted establishment path. This, however, is not the case. Usually people assume that land markets are the realm of human activity involved in buying, selling, leasing and securing land. This focus stresses the physical and directs analysis away from the social and cognitive capacities supporting successful land markets. It can lead to a naïve assumption that **land** is the only ingredient. In fact, successful land markets gain their vitality from creating and marketing abstract **land rights** and **complex commodities**, in addition to the land itself. A short description of each ingredient follows.

- **Land**

Land for market purposes starts with territoriality: recognition of a group's political integrity and its relationship with particular land. Given stability, a community will tend to divide land and similar resources into opportunities to use, invest, secure, and so on.

- **Land Rights**

Organisation of these opportunity sets eventually matures into a collection of legal statements defining the relationship (rights, restrictions and responsibilities) between subjects (group members and ultimately, in formally constructed systems, citizens) in relation to areas of, activities on and products derived from land and resources. These rules and their routine administration are necessary but not sufficient to turn the opportunity sets specified by the rights into marketable commodities.

- **Complex Commodities**

Improved technical supports (for example, land registration and accurate spatial identification) are recognised components of developed markets. However, cognitive capacity of market participants is probably even more important. Together these supports, structures and capacities allow secondary and derivative rights, in addition to land, to become commodities. The cognitive capacity is remarkable though it grows principally out of prosaic human activities including rigorous explication of land rights in general and rights in relation to each parcel of land in particular. The ability to trade in rights in addition to land itself develops further when combined with securitisation, corporatisation and separation. These processes together allow layering of opportunities, simultaneous allocation of access to various land based opportunities, and development of invisible, abstract, marketable commodities derived from land but well separated from it.

## **Five Stages of Evolution of Land Markets**

### **Introducing the Evolutionary Stages**

Our explanation of how people move from being land occupiers to participants in complex land markets relies on the heuristic device of describing five evolutionary stages of development of markets shown in Figure 1 (based on ILAP C, 1999, p43).

### **Figure 1. Evolution of Land Markets**

The stages are not historical or empirical. They are not scientifically bounded or rigidly separated and their appearance in reality is variable. Any or all of the stages can simultaneously appear in one nation state. A few developed countries have had the lucky experience of moving from the first stage to the end stage of a complex commodities market but even fewer have done so without cathartic upheaval. The Western democracies took hundreds of years to make the transition. Developing countries are trying to encapsulate the experience into decades.

Use of an evolutionary framework of analysis will, hopefully, increase our capacity to understand the issues faced by a country seeking to direct its land uses and land rights towards selected goals, particularly development of sustainable and equitable land markets. Theoretically, capacity of policy makers to manage orderly transition from one stage to the next and to understand and anticipate regressions should improve.

Any process of evolution or development, involving consensus or conflict, dramatic reform or simple incremental processes of gradual improvement, can be used to travel backwards and forwards through the stages. No particular process is necessary.

Revolutionary changes include the American Revolution and the consequential renunciation of feudal tenures, and reconstruction of Eastern European countries after the fall of communism which involved substantial recasting of land controls from central state management to private ownership (Bogaerts, et al., 2002).

Examples of dramatic, non-revolutionary changes achieved by democratic means include:

- The thirty seven Acts of Congress of the US in 1830s and 1840s which restructured English property law by statutory law in much of the American West.
- The English property law and land registration reforms of 1925 which simplified tenures and estates, assimilated personal and real property law, replaced mortgage by way of conveyance with legal mortgage of freehold by grant of a lease or its equivalent and improved land registration.
- New Zealand's Resource Management Act of 1991 which implemented a holistic philosophy integrating air, water and soil policies, and consolidated 50 statutes into one Act (Ting and Williamson, 2001).
- The adoption by the state of Victoria in Australia of the Mineral Resources Development Act of 1988 which replaced archaic mining

tenures and integrated approval of mining opportunities and planning processes (Victorian Government White Paper, 1989).

- Gradual replacement throughout Australia of general law and deeds conveyancing with a statutory Torrens system of priorities of land interests and registration.

Indeed, over the past 200 years, experience of gradual but fundamental change in land law, administration and markets has become commonplace and even normal in countries where political, economic and technological changes are being absorbed.

Whatever the process of change, the evolutionary stages in market development operate like building blocks; each stage must be developed before the next is possible and all earlier stages must all operate successfully to support the most complex stage. The stages are not empirically pure, and probably never can be. Much of the activity involved in the processes of evolution is unplanned, and when deliberate planning attends evolution, it frequently produces outcomes which surprise its designers. As with all human activity, growth in the scale of activity increases the opportunity for imperfections and variations either in the design or in operationalising the design. Each country can develop its own patterns and activities, but, as globalization and international investment imperatives tend to be built into working economies, local systems begin to adopt generic and common features.

### **Preliminary Stage 1 Land**

Human life depends on having land in which to live and work. In exceptional situations a cultural group can exist without having a relationship with a geographical defined location. Some groups, for example Inuit, Bedouin and gypsy, even wander across national boundaries. Some wander within state boundaries – nomadic tribal cultures still exist within national boundaries of some highly developed countries. Human groups do not need permanent land or land rights to function, though they need predictable opportunities for accessing land. Sometimes groups use rights in animals or trees as their means of

subsistence. Sometimes, particularly if they are protected by distance or natural barriers, human groups do not develop a rigorous internal explication of the relationship between particular sub-groups or individuals and land.

Understanding of the complex ways people develop meaningful, highly abstract and intensely spiritual relationships with land or features on land, without markets or legal systems (except in the sense that “systems” must exist because societies cannot function without them) is a significant result of indigenous land claims and related debates.

Groups with non-market relationships with land exist in many countries alongside developed land markets. Canada, USA, New Zealand, Japan, Sweden and Australia (among others) support indigenous groups who reject land markets. Nomadic groups also exist in countries where land markets do not function. For our purposes these groups illustrate a vital point: when organised into functioning groups, humankind develops intense and complex social and personal relationships with land. Land markets do not negate these tendencies. Any attempt to build markets in defiance of the way its intended beneficiaries understand their relationship with land will generate opposition, even if the relationship is informal and minimalist.

## **Preliminary Stage 2 Land Rights**

For a market to develop, a community not only needs land as a territorial imperative, but also an organised way of thinking about its land permitting basic functionalities of internal physical redistribution and organised admission of strangers to ownership.

Land rights on the intra country scale require the national law to recognize the opportunity of the single or group owner to prevent people entering without consent, at minimum. Land rights on a national scale require other nations to respect the territorial integrity of the country, its social stability and legal system.

There is an inevitability about development of land rights. Exigencies of human life, particularly land scarcity, irregular access and dispute management stimulate development of land rights. Scarcity almost always occurs – eventually there will not be enough land to satisfy everyone. Even if there are blank miles, the attraction of hilltops and riversides will create scarcity. The society then has to do something dramatic to organise the relationship between its various members and land.

Generally, when societies depend on agriculture as a food source, their economies develop orthodox land rights to ensure predictable and secure production opportunities. A pattern in decisions induces participants to expect regularity and to develop continuity, particularly through rule making (Llewellyn, 1940). When possession of land is protected by an institutional structure, entitlements to production are settled. The association may relate to a measure or amount of land rather than a particular piece of land; it could be expressed as an opportunity for cropping or gathering. A person may use it with his family, village or other production unit, or as an individual. In human experience, the details of the recognized relationship between a landholder and land can take on virtually any content.

Regularity is one thing: formality is quite another. In relation to land the word *informal* is used in two senses: first to describe those people who prefer their relationship with land to remain “unofficial” including cultures with spiritual or unstructured land relationships, typically pre-writing and nomadic cultures. Second, to describe those whose land uses remain outside the formal system available in their country. These informal land “owners” are often squatters or others with tenuous and unprotected relationships with land. Those with informal relationships with land often plead for formal recognition in response to threats from more intense pressures on land and resources.

In world experience, informal land rights are by far the norm. The statistics quoted by de Soto (2000, p. 28) suggest that informally held land has enormous, but unrealized, asset value for the poor. Only 2-5% of Africa is held under formal title. A perception that formality has something to offer humankind is

supported by people's need for security in their occupation of homes and workplaces, a plea paradoxically often attended by resistance to use of the land as a market commodity. Thus formalisation of land by organisation of access and use and construction of administrative systems is necessary whether or not markets are desired.

### **Machinery of the Land Rights Stage**

A level of sophistication is necessary to run this stage and its ingredients are described below. Some of the basic equipment is familiar but other equipment, no less essential, is unfamiliar.

#### *Legal Recognition of Minimum Land Rights.*

The orthodox land right at its minimum is the guarantee or reinforcement of routine association with land by a person or group by social and legal structures (which may be very informal). Land rights exist, but are not necessarily marketable, when—

- they are recognized by the society, not just asserted by a claimant
- they involve legally defined, regular opportunities and responsibilities, and
- they allow their owner to appeal for reinstatement to an authority source in cases of breach or interference.

For maximum market impact, the rights, are successful when based on secure tenures delivering broad opportunities for decisions by their owners.

#### *Formalisation and Registration*

Formalisation increases the scale of rights recognition and is essential for successful market operation. For developed countries, formalisation is a national endeavour, encompassing land in all private tenures. For developing countries, the task of developing national formalisation programs is daunting and

expensive, especially if it involves substantive reconstruction of legal tenures (UN-HABITAT, 2003).

Land rights management, particularly through registration, is an important but only one part of the picture. Gershon Feder and his World Bank colleagues assessed the benefits of titling and registration (Feder and Nishio, 1998). Their work is used by Dale and McLaughlin (1999) to highlight two links between titles and economic performance: enhancement of tenure security and role of titles in collateral arrangements allowing access to institutional credit. While the tool of land registration is still properly regarded as a key process, the basic technical work in moving from land to a land market involves creation of satisfactory land tenures and rights and precedes formal registration.

Land market success requires establishment of a broad shared understanding of and commitment to all processes related to the rights, of which registration is only one. Registration can significantly enhance adequate or good land rights; registration of bad land rights (for example, rights in name only lacking substantive reality) cannot improve market operations and will distort market activities. And registration of rights of any particular quality (suitable for markets or not) will fail if the registration process is not supported by its intended public both at initial entry and through capture of subsequent transactions. Registration will be rejected if there is no public confidence in the land tenures and specific land rights it supports.

### *Social and Cognitive Capacity*

“The recognition that rights are imminent in and constitutive of social relations has led to a greater role for sociology and anthropology in recent debates. Early on Geertz (1983) observed that the law is a way of social imagining, a system of meanings. Law defines and creates social realities as well as reflects them” (Peerenboom, 2002, p. 48).

Social support for market activities is distinct from the observable relationship between an owner and particular land and recording processes. It includes softer, non-technical activities. The society needs capacity to perform rights-related tasks including non-technical tasks giving land rights and the technical support systems social meaning compatible with market activity. Most importantly, the society at large must gain an ability to **conceptualise** land related opportunities.

### *Management of the Power Component of Land Rights*

Building social support for a system of land tenures and rights is far from easy. Land rights deliver dynamism and create power: they increase human capacity, for example to build, grow, produce, run a business and other activities. An owner can organise other people, enjoy a larger realm of decision impact, and given enough land, he can make a difference to the lives of other people (Denman, 1978, p. 46).

Thus successful land markets involve passive consent by the participants to the possibility of personal deprivation in some, unequal access in most and increasing access and the power that goes with it in a relative few. Seen in this sense, large scale public acceptance of state sanctioned allocation of power among citizens via land distribution is the remarkable achievement of developed democracies, especially as it was managed without a complete understanding of the tools that built success. Little wonder that it is so difficult to transfer market systems into less developed economies.

### **Stage 3 Land Trading**

Given the variety of national circumstances, a clear theoretical and practical delineation between preliminary stages and market stages is probably not available, and certainly not necessary. While markets depend on competent attention to definition of commodities in the form of land rights, processes used to achieve this are typically mixed up with land trading and marketing. For a country to achieve a land market, its policy makers must obtain public commitment to the primary functions of land rights - stabilising land distribution

and generating capital. While you can have land rights without a market, you cannot have a market without land rights. More importantly, good quality land rights and an effective land administration system are essential though not sufficient for market success.

To permit further economic development, commodification must be taken seriously. The invisible aspects of land rights must mature. Each right needs sufficient explication to form a comprehensive conceptual framework for thinking about an opportunity set or activity related to land. Rights must be announced, refined and comprehended by members of the rights holding group and by outsiders. The social recognition of land must be transformed from land as a physical thing to abstract concepts of rights and powers in relation to land based activities. The capacity of the society at large to visualize land based activities as a set of rights and opportunities managed by carefully developed restrictions and responsibilities distinct from the physicality of land is fundamental to market development.

A functioning society always needs to rationalize the relationships between people and land; trading in commodified land is one of the easiest methods of rationalization, especially when compared with bureaucratic or centralized allocation. Commodification of land is ancient; instances of sales are recorded in the earliest of human writings. Land was commodified 4000 years ago: two conditions are regarded as essential - literacy and scarcity. Industrial capitalism is not, though it is the engine of a complex market (Epstein, 1993, p. 1377).

The defining activity of land trading, replacement of one owner with another through a simple transaction which is objectively evidenced usually through a record or writing, is the common vision of land markets, even in developed economies. This vision misses the obvious. It is not just the trading, but also the existence of support systems facilitating the trading that define when a market exists.

Trading usually starts among the members of the group and is dependent on local knowledge of the land and the traders. Trading within a group might be

highly regulated and even very formalized. However, for management of recurrent land trading between group members and strangers, formalisation is essential. Acceleration of the scale of trading requires transaction management. The activity level becomes so great as to demand a broad public acceptance of the systems. In turn, these systems allow the rights, restrictions and responsibilities to be acknowledged, understood and better enforced and traded.

As the group grows, its system matures enough to facilitate or even encourage trading in land among a broad range of potential owners so that the transaction methods reliant on approval by village elders and community ties developed through marriage bond and inheritance shift towards objective evidence of ownership, public and recorded transfer methods, and formal identification of land parcels. Land rights and the tenures which support them gain precise definition, and processes of land dealing require secondary evidence, distant from primary evidence of community knowledge. Formal documents, measurements, boundary identification, filing and recording systems become necessary.

#### **Stage 4 Property Market**

The significance of land to capitalism is now better understood. Land is a potential market asset. If a country cannot produce capital out of land, its population will remain poorer to the extent of the unrealized opportunities. Unless other sources of wealth are readily available, its people will observe expansion of the gap between their economy and economies of successful countries (de Soto, 2000, pp. 4-5).

The *property market* label is non-technical. It facilitates differentiation of an earlier stage where mere land trading appears among group members and even among strangers and members. In property markets, the scale of activities is fundamentally larger, market management demands multiple and objective sources of integrity and reliability beyond mere group verification. And the state is, and must be, more involved. The result is a highly organised matrix of commodities, competencies and participants (see later Figure 4).

Despite this repertoire of apparent sophistications, property markets are commonplace and, indeed, most of them just grew without direction or design. Many countries experienced intuitive development of the three easily identifiable and essential activities for running a property market: they invented diverse land based commodities, perfected capacity to use land as a security, and managed a huge increase in the scale of land trading.

Dynamism lies not just in the scale of trading. It also depends on proprietary separations and reconstructions, derived from tenures that allow an owner to reduce his rights by creating derivative interests to permit actual use by owners of lesser rights; to recast his activity from actual land use to take profits from land use by others; to reduce his activity on the land while increasing his gains; and generally to fragment the way land is used. The English solution to this need, transfer of large freeholds to multiple leaseholds, has been copied in virtually all land markets.

Once the observable competencies develop, markets produce mass transactions among strangers that deliver remarkable land redistribution. For example: in 1874 England had 14.5 million acres equalling 41.5 per cent of the land owned by 1688 peers and great landowners who constituted only 0.2 per cent of the total number of recorded proprietors (Brodrick, 1881, quoted by Denman, 1978, p. 56). These holdings disintegrated very quickly, once conveyancing impediments were removed, even though property ownership remained a distant goal for the average British citizen.

Moving from occasional land trading to a property market with diverse commodities, large scale trading and easy securitisation, that is use of land as security for a capital loan, requires technical and social tools described below.

*Inventories and documents: reliable land administration system*

Land administration, in addition to land, is essential for capital raising. de Soto sees inventories and documents relation to land as -

“... the visible sign of a vast hidden process that connects all these assets to the rest of the economy. Thanks to this representational process, assets can lead **an invisible, parallel life alongside their material existence**” (2000, p. 6). (Emphasis added.)

He identifies the solution to poverty as creation of **invisible property** out of land and business activity:

“The poor have houses but not titles; crops but not deeds; businesses but not statutes of incorporation. It is the unavailability of these essential representations that explains why people who have adapted every other Western invention, from the paper clip to the nuclear reactor, have not been able to produce sufficient capital to make their domestic capitalism work.” (2000, p. 6).

The four components of a technically satisfactory land administration system are described by Palmer and McLaughlin (1997) in the table below as:

<b>Juridical</b>	Defines rights by allocating land, transaction tracking and legalisation, delimiting of parcels, demarcating boundaries on ground and delineating them graphically, numerically and/or in writing. Provides adjudication of disputes, registration –making and keeping records of land rights
<b>Regulatory</b>	Establishes opportunities for use of land and resources: land use restrictions imposed by zoning, designation of special areas ranging from historic districts to fragile ecosystems
<b>Fiscal</b>	Organises economic aspects of land: processes may be used to implement policies to increase revenue collection and production and they may act as incentives to consolidate or redistribute land or use land for particular purposes.
<b>Information management</b>	An integral part of the above three. The juridical cadastre underpins land registration. The fiscal cadastre supports valuation and taxation and zoning and other information systems facilitate planning and enforcement of regulations. The concept of a multi-purpose cadastre arises out of the realization that these components share common information requirements.

**Table 1 – Technical Land Administration Components**

*Broad opportunities for owners' decisions*

Opportunities are axiomatic for market success. Distant, centralized state or bureaucratic decision making is inefficient, even though modern Western style markets permit private ownership by very large and highly structured groups through corporate and trust ownership.

*Property regime management*

Regime management demands more than simple land administration. The regime must balance owners' power with sensible restrictions in the public

interest. Restrictions are just as important as rights because they underpin the continuation of public acceptance of the market. Borrowing from and extending Dale and McLaughlin (1999, p. 18) a property management regime involves at least the components identified in Table 2 below.

<b>Overriding opportunities</b>	taxing and acquisition rights of the state, particularly to facilitate construction of utilities, roads and other essential infrastructure
<b>Overlapping rights</b>	facilitation of parcel use by two or more people at the same time for different purposes: lessee and owner, land owners and miners, easement owner and land owner, and so on
<b>Complementary rights</b>	rights shared by several for mutual benefit: access roads, party walls, support, common condominium facilities, co-ownership
<b>Competing rights</b>	allowing different people to have different rights at the same time, which are capable of competing if circumstances arise: eg lender and owner (Palmer and McLaughlin, 1997, pp. 4-5)
<b>Conflicting interests</b>	disputes about rights and interests (inevitable in any system) which require systematic prevention, management and solution
<b>Layered rights</b>	rights to different aspects of or opportunity sets related to the land (develop above, take minerals from, use surface of, tunnel underneath, take trees from) in seamless activities above and below the land surface

**Table 2 – Components of a Property Management Regime**

Additionally, management systems need to create predictable, reliable transaction patterns, particularly dealing with rent seeking, corruption, fraud and forgery.

### *Mature Cognitive Capacity*

The key ingredient in market development is not mysterious. Western countries allow their land owners to remain attached physically to land, to think and talk about the characteristics of an individual parcel or building, to regard the area within boundaries as “mine” and “yours” but they also do something far more important. They build concepts in relation to land, embed these concepts in social behavior, language and economy and **trade the concepts**. In these countries, land administration is more important than land itself because it provides the objective regularities that facilitate development, ownership, management and trading of conceptual or intangible commodities. By contrast, if a country focuses on land as simply land, it cannot develop the functional processes required for wealth acceleration through commodification of land rights and complex commodities related to land.

Like other complex social and economic systems, land markets generate their own myths and shared understandings. The significant difference between undeveloped and developed economies is not their lack of records. Sometimes, even with records, the first group lacks the ability to systematically conceptualise land sufficiently to run an effective market, as Indonesia illustrates. Recording of rights alone does not invite the next stage. It is not records, but the **ability to work with abstractions** that allows developed countries to accelerate wealth through creation and marketing of complex commodities.

Abilities to conceptualise the rights themselves as commodities (an ontological appreciation of the abstractions of rights derived from land) and to build different opportunity sets out of these abstractions remain relatively unexplored. Perhaps this is because land engages human attention in other more pressing

ways. The tangibility of land has concentrated efforts on the physicalities of who owns it, where is it, what activities can you do on it, and so on, and then on the ordering and systematizing of these questions. Contrast shares in a listed company that are thoroughly intangible (Cohen, 1932). Shares are understood as not necessarily connecting with anything physical in particular and the capacity for conceptual understanding flows through a natural process of comprehension that shares involve expectations, sometimes quite remote. Because land is physical and access is the overwhelming human preoccupation, the development of social and cognitive functionality through appreciation of its abstract qualities takes longer. Flow on opportunities require a group to divorce land rights and opportunities from physical space –

- a) by conceiving the right as a “thing” or commodity, and
- b) by building rights out of other rights.

This mature cognitive capacity is both the incentive for and the outcome of the technical machinery which specifies, enforces and routinizes layers of conceptual, not physical, “reality” to support complex trading activities. It is the key to successful management of abstractions. Its components include a variety of capacities discussed below.

- **Understanding the need for concepts.** The first step is understanding of an opportunity (including a land right) as a relationship between people in regard to land, not a relationship between a person and land. Thus, immobility of land diminishes in significance, and a capacity to generate multiple and different opportunity sets in relation to one piece of land becomes available.
- **Capacity to create concepts.** Cognitive construction of opportunity sets (including multiple abstract and layered opportunities in land, and in minerals, water, building, waste discharges, carbon futures and planning rights, for example) is needed, in addition to social, legal and administrative construction.

“Crudely put, some entities (planets, deserts, rocks) exist independently of human conventions and stipulations, while others (the international Date Line, the American Constitution, NATO, the pound sterling) exist only in virtue of (are ontologically dependent upon) sometimes highly complex systems of cognitive acts, beliefs, and expectations on the part of human beings.”

(Smith and Zaibert, 1997, in the context of describing land registration, but the comment is equally applicable to property rights recognition in any legal order.)

- **Ability to imagine opportunities.** Imaginative construction of commodities is needed. In standard analysis, commodities are called “objects” of land rights, but a complex market will create amazingly varied objects. Even in the case of land, the object of a land right need not be a socio-economic spatial unit. The spatial delineation develops from two-dimensional to three-dimensional, and then into recognition of unbuilt and physical unidentified “land”, for example a conceptual space in the planned building (Smith and Zaibert, 1997, 2001. The fourth dimension of time is added in a complex array of present entitlements, future entitlements and conditional or possible entitlements. The commodity can be a set of abstract entitlements distantly removed from any chance of actual occupation (for instance, most mortgages or a share of an unborn great grand child in a deceased estate). You can even excavate in your parcel and still own land capable of being mortgaged, devised or sold. Then you can sell your contract, or mortgage, and repackage these products and on-sell them, and so on.
- **Ability to articulate a broadly acceptable philosophy and set of values capable of underpinning the system.** A coherent land policy is needed which is transparent to the population. It must be based on fundamental guidelines and principles and must follow clearly defined, in part universal and in part valid, national, regional or group objectives (GTZ, 1998). The overarching policy need not be announced, say by a constitutional

provision or government announcement. For example, a search for Australia's land policy will reveal high levels of unwritten consensus about markets, access to land and social equity. Although the country has officially stated policies for dealing with water, salinity and oceans, national land policy is formed by much more amorphous processes of socio/political construction of a set of shared values about the importance of ownership and its accessibility.

Underlying values will influence market operations, as the differences between values applied in Asia and those applied developed in Western economies illustrates. Dependence of transaction reliability and verifiability on prior knowledge of persons, membership of groups, and incorporation of outsiders into groups involved in transactions are regarded as features of Asian value systems. By contrast, the reliability of transactions in the West derives from legalisation and formalisation: stranger trading and legal enforcement are dominant patterns. The difference in basic values indicates that transposition of land administration systems which facilitate trading among strangers into Asia is problematic.

- **Maintain socio/political commitment to the commodities.** The overall public acceptance of commodified opportunity sets is the most crucial factor in market operation. If the commodities are not embedded in the social fabric, the market system cannot develop or be sustained.

This conceptual capacity is both the incentive for and the foundation of the technical machinery designed to give sufficient specificity, enforceability and reliability among layers of conceptual not physical "reality" to support complex trading patterns. An analysis of this capacity will eventually mature by borrowing from the insights of sociology, (Berger and Luckmann, 1967), ontology (Stuckenschmidt et al., 2001) and philosophy (Searle, 1995).

## **Stage 5 A Complex Property Market**

An economy which reaches Stage 4 has made a remarkable achievement, especially because it moved its land and resources into the market direction without the tools of the trade being explicit, identified or even stated anywhere. While invention played a part, copying, emulation, and, often, luck were also involved. Stage 5 involves developing highly specialized commercial facilities, requiring an additional set of capacities or functionalities, in addition to the functionalities in the previous stage. All these functionalities are shown in Figure 2 (**Functionalities of A Complex Property Market**) as parts of an interdependent whole: in most cases economies develop the ancillary commercial facilities at the same time as they develop the others, and the empirical movement between stages 4 and 5 is blurred. The ancillary functionalities of a modern commercial economy inject dynamism into land markets by facilitating development of trading in complex commodities; they are securitisation, corporatisation and separation.

### **Figure 2. Functionalities of a Complex Property Market**

#### *Securitisation*

In the banking sector, securitisation involves processes of repackaging financial instruments into new generic and more marketable commodities; mechanisms include acquisition, distribution, classification, collateralization, composition and pooling. These arrangements facilitate complex corporate level borrowing and international investment. The much more simple activity of creating security by charging land with repayment of debts thereby converting of land value into spendable capital is a primary activity supporting securitisation packages. From the economic point of view, multiple layered opportunities for converting future yields into present capital are created. The vitality and reliability of the secondary systems depend on reliability of the primary assets. In the realm of land securities, the connection between providing a loan and being able to recover the security on default is vital to the growth of land and money markets.

### *Corporatisation*

Corporatisation (allowing people to create a new legal entity of a company) must exist to control risks, pool capital, divorce ownership from management and increase opportunities for participation. For land, the company introduces a single owner and a potentially open-ended numbers of benefit takers. It can provide professional management of complicated investments. Countries (such as Indonesia) where full ownership of land is limited to natural persons in effect deprive their population of the basic engine of capital raising and land management in the context in which it is most economically effective.

### *Separation*

Separation of ownership and management capacities from profit and benefit is especially necessary to manage opportunities and commodities in this new, complicated environment. Companies remain a principle commercial separation mechanism, but in countries with a common law background, trusts are an equally important commercial tool. Transportability of trusts is improved through international instruments; for instance, the Hague Convention on the Law Applicable to Trusts and on their Recognition (signed 20 October 1984) lays down the terms of recognition of trusts.

When commodification, securitisation, corporatisation and separation are combined with land, land rights and land based activities, wealth is created by carving out of land simultaneous, multiple trading opportunities. These allow participants to separate ownership from use, utilities from buildings, ownership from access, buildings from rights to build, possession from yield, development opportunities from risk, securitisation from possession, ownership from management, yield from responsibility, risks from profit, benefit streams from management responsibility, corporatised owners from risk, control from sharing in benefits, and securitisation from direct capital raising, and so on. An open-ended range of opportunities capable of being converted into commodities opens up.

### **Machinery for a complex property market**

A complex property market involves a complicated set of interrelated activities and outcomes. A graphic representation can be made by developing Peter Dale's Three Pillars Diagram (2000 p. IV) to include a fourth pillar which represents the cognitive capacity (**Figure 3**).

### **Figure 3. Four Pillars of a Land Market.**

When all these four functionalities are established, institutional support for new commodities develops. The opportunity to “own” land through membership of a corporate or trust vehicle is open-ended and available to individuals with even minimum capital. Opportunities to trade “land” through transactions involving shares, units and pension fund investments are similarly opened up. The capacity of land to generate value can be mixed in dynamic and flexible ways with other economic opportunities for production and investment. Secondary markets flourish. More importantly, national trading attracts international investment.

Complex markets benefit from remarkable improvements in the last 30 years in technical support systems. In terms of their antecedents, the technical tools now in use are unrecognizable: geographic information systems (GIS) (Longley and Batty, 2003), land registration systems, parcel definitions, information coherence and interoperability, spatial data infrastructures (SDI) (Williamson, et al., 2003), land administration systems, and computerized access and assistance in general are vastly different given new management, technology and government roles. These developments were partly responses to improved technical capacity for creation and transfer of data (generated by computers and the internet), new management styles, and devolution of the role of governments to public/private partnerships and the private sector. Improvement in information integrity and rights regularities fueled significant improvements in land markets, wealth acceleration through land and opportunities for sustainable development. These new processes are now essential for well developed land markets. **Figure 4, Complex Commodities Market**, shows how the concept of land commodities is changed as complexity develops. The stories of how new commodities are accommodated by LAS infrastructure or why they are not

accommodated remain untold. The theory necessary to understand how property products or commodities which are not related to parcels (LAS) or polygons (SDI) appear and how they could be better serviced might come out of cadastral modelling research or some other unforeseen research direction.

#### **Figure 4      Complex Commodities Market**

### **Difficulties in Managing Markets**

The analysis above demonstrates that land markets are difficult to build. Some other reasons for approaching markets with caution are identified below.

- Grand claims made for land rights and land markets that they are the crux of Western capitalism (de Soto, 2000) need to be balanced by high regard and respect for other means of distributing land access, particularly communitarian systems which generate human comfort and reliable food for millions. The claims also need to be set against other methods of growing capital available to communities. Payne (2001, p. 58) compares British (in 1914 at the apex of its economic power a mere 10% of its population were property owners), German, Swedish and Swiss experience of low levels of ownership, with 55% ownership evident in Jakarta and 53% in Delhi accompanied by disastrously low per capita incomes. Payne suggests that no one has demonstrated a causal relationship between development of property rights and affluence of the West, and he pleads for diversified and localized approaches to tenure in lieu of a single minded market driven approach. Despite this reasonable hesitation about cause and effect and the sensible plea for diversified land reform strategies, countries with land markets undeniably enjoy improved capacity to generate wealth out of their land contrasted with countries without markets.
- A country may get more immediate economic improvement by making its labour or product market more effective, while it delivers tenure security through instruments other than tenures suitable for a land market, say by recognition of traditional and informal land arrangements.

- Markets operate on many levels, from the very secret to the highly formalized. The spectacular degree of variation shows they can sometimes operate without management, with power in lieu of transparent controls, and disengaged from the formal economy. The analysis here concerns the formal market, though we acknowledge markets exist at many levels even in a given economy. The formal market is the most powerful wealth generator.
- Markets require defined land tenures and titles: and therefore create co-relative informalisation of land occupation for those outside the system. Pursuit of markets without addressing this issue of comparative disadvantage suffered by those unable to participate is foolhardy. So is pursuit of markets in traditionally or communally held, or state owned land at the expense of its inhabitants and their traditional associations with their territory; persistent land disputes are politically corrosive and, at the extreme, induce state failure.
- Introduction of formal markets requires high quality anticipatory planning and application of diverse national and project capital. Technical supports for developed land markets devour human and economic resources. A country has to be relatively rich in economic and social capacities before it can develop formal land markets.
- Every market has its own momentum. The rental arrangements distributing beds in Calcutta are not comparable to the office rental space market in New York or Sydney. Making generalizations about markets, or borrowing tools from other markets must be counter balanced by grounding any efforts in the local situation.
- All markets depend on credit. As a generalization, informal credit systems need to rely more on informal and even predatory tactics to protect loans. Even in formal systems, degrees of informal credit activity will remain, but require policing to ensure associated practices do not undermine predictability and reliability. Institutionalised credit systems drawing on international capital require developed land tenures and land rights and well regarded technical support systems.

- Formal markets can have negative economic consequences (Payne, 2001). They immobilize housing dependent work forces. Land speculation and rent seeking behaviour can appear. Land transactions tend towards rigidity, formality and complexity. Local land market policy needs to anticipate and counteract negatives.
- All stable, successful markets are accompanied by sophisticated regulatory controls, including land use planning, parcellation controls, taxation, certification of participants, government administrative standards and general legal controls to ensure transaction quality and general honesty. All countries with developed markets sequester large amounts of land from market operations for social, environmental or economic reasons.
- In addition to technical support, complex markets demand high levels of cognitive capacity in their beneficiaries. This aspect of market operations and the socio/political tools available to build this capacity are only just beginning to be explored.

## **Conclusion**

In a modern market, the quantity of land available for the market is not the issue. Countries with developed markets create opportunities for commodification unrestrained by the volume of available land because their citizens are innovative and cognitively competent, and their governments provide both infrastructures to support trading in abstract commodities and restraints on market excesses. The multiplication of land interests and layering of opportunities create virtually unlimited potential for secondary and derivative markets. The physical parcel of land as a unique commodity is the starting point in the adventure of commercial creativity. Parallel development of markets in planning permissions, land information, marine opportunities, carbon futures, tradeable discharge permits, high rise building opportunities, water, and other resources await, if the human resources, administrative systems, spatial identification and trading systems associated with land can be successfully extrapolated.

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## Figure Captions

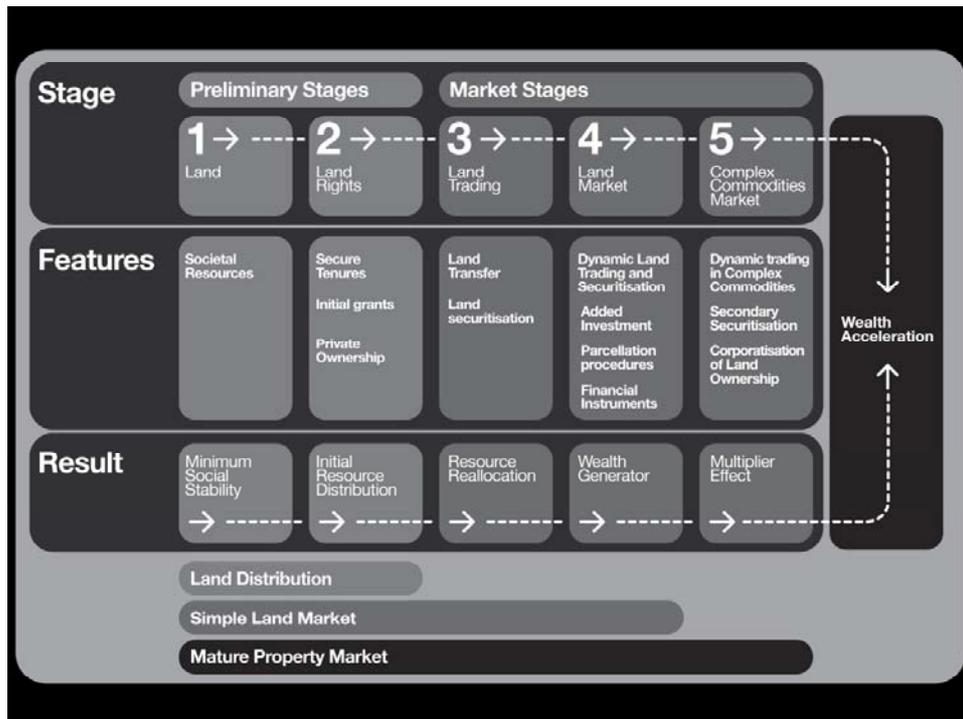


Figure 1: Evolution of Land Markets

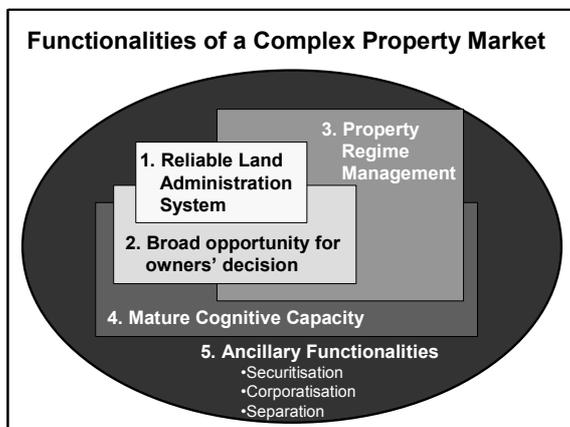
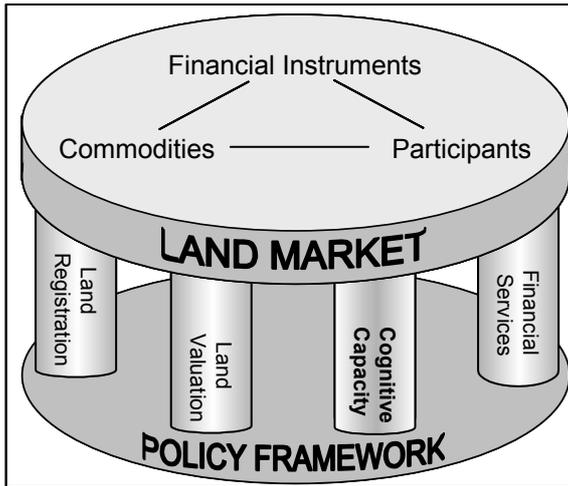
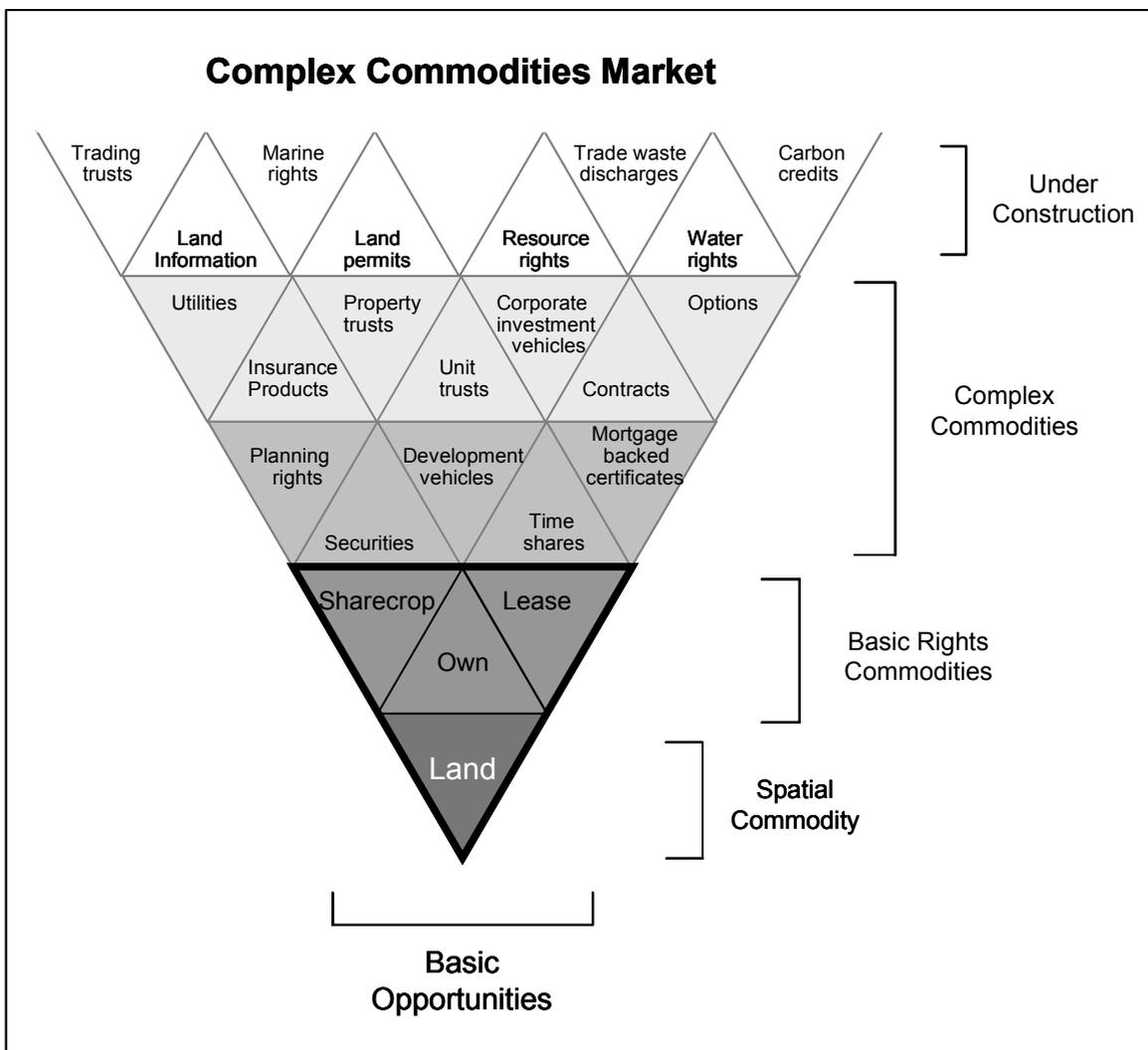


Figure 2: Functionalities of a Complex Property Market



**Figure 3: Four Pillars of a Land Market**



**Figure 4: Complex Commodities Market**