



The Credibility Thesis meeting the Coase Theorem in terms of form and function

Lawrence W.C. Lai¹

Ronald Coase Centre for Property Rights Research, Department of Real Estate & Construction, University of Hong Kong, Hong Kong, China

ARTICLE INFO

Keywords:

Credibility thesis
Coase Theorem
Metaphysics
Form
Function
Ambiguous property rights

ABSTRACT

This paper engages two theories about the form and function of institutions, the “credibility thesis” offered by Peter Ho (2014, 2017, 2018) and the paradigmatic Coase Theorem, in two versions formulated by George J. Stigler and Steven N.S. Cheung and recognised by Ronald H. Coase (1988). The joint consideration of these two influential theories was predicated on the fact that the former, with its hallmark being “function trumps form” (Vatn 2023), is said to embrace institutional arrangements as endogenous, while the latter treats them as policy variables. This paper, interpreting the internal logic of the credibility thesis in its best possible light, explains that as a policy tool it is compatible with the contingent, comparative and case-by-case thinking of the Coase Theorem, as pointed out by Harold Demsetz (1969), although users of the former have launched an unfortunate and unsubstantiated attack on neo-institutional economics (NIE) likely based on a misinterpretation of primary sources.

1. Preamble

A big problem that dogs the current orthodox literature on institutions and development is its *inability to clearly distinguish between the forms and functions* of institutions (Chang, 2007b:19, as quoted in Ho 2018: 642), italics author's).

The architect-planner has what we may call the functional design principle propagated by Louis Sullivan (1896), which states that “form follows function.” This principle was based on observations of organisms such as birds and fish. As wings are for flying and fins are for swimming, the design (form) of a factory, by analogy, would depend on its function. Therefore, an old brick factory needs tall chimneys, but a different type of water supply from the large water storage tanks required by a textile mill. A fixed military observation post needs to have a broad vision field, so its apertures are wider than those in a machine gun pillbox.

The credibility thesis discussed in this paper can be seen as an extension of the architectural principle, “building function necessitates built form.” Thus, by analogy the land governance yardstick becomes “institutional function entails property rights’ form”. From an entirely different angle, spontaneous *evolution* of institutions stressed by the credibility thesis (Ho, 2018) is necessarily a *long term process* and thus, it

MUST involve a trial and error of purposeful designs by many decision-making/rule-setting units, often not under central coordination or comprehensive planning in the onward march of history.

The focus of this discussion is on *form* and *function*, but not as that is expressed in the whole social system but solely in the specific policy sector of land use planning.

2. Background

Ho (2018), who offered the credibility thesis (2014) in this journal, quoted Chang, (2007b: 19) who, in the words quoted above, had pointed out that there were difficulties in distinguishing *form* from *function*.

The thesis was summarised by Ho as “institutional function presides over form” (2014: 14; 2017: 81). Ho’s thesis is about *the credibility of an institutional function* and the proposition that *institutional form is unimportant* because it is the institutional function, not the institutional form, that really determines institutional *performance*.²

To Coasians, Ho’s proposition on the *irrelevance* of institutional form is clearly the famous “*invariant theorem*” of the Coase Theorem formulated by 1982 Nobel laureate George J. Stigler (1987) based on a hypothetical land use conflict scenario in 1991 Nobel laureate Coase’s

E-mail address: wclai@hku.hk.

¹ <https://orcid.org/0000-0002-8960-2766>

² It is true that the credibility of an institution is in that it works (functions/performs) well. However, unless a certain institutional form investigated is not *de facto* honoured, in use or enforceable, it would certainly have a real effect in the presence of transaction costs.

<https://doi.org/10.1016/j.landusepol.2024.107335>

Received 18 July 2023; Received in revised form 8 June 2024; Accepted 22 August 2024

Available online 12 September 2024

0264-8377/© 2024 Elsevier Ltd. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

(1960) work, “The Problem of Social Cost”. The conditions for the theorem according to Cheung (1992) are that transaction costs are zero and property rights are clearly defined.

This paper evaluates Ho’s thesis in the best possible light in conjunction with two key versions of the Coase Theorem formulated by Stigler (1987) and Cheung (1987a), (1992) based on Coase’s writings (Coase, 1959, 1960),³ as a pinnacle of the so-called “neo-liberal school.” (Allen and Barzel, 2016) This school prefers to call its discipline “neo-institutional economics” (NIE) (Cheung, 1992), and it is this which the proposer and followers of the credibility thesis engaged, as we shall see.

NIE, as jargon, must not be confused with the other forms of “institutionalism” attributed to John Commons (1932) or other brands of “neo-liberalism” (Prychitko, 1997). It is the term used by Cheung (1992) in his speech to honour Coase’s field of study at his Nobel Prize presentation ceremony (Coase, 1992). Fig. 1, modified after Allen and Barzel (2016): 78), presents the configuration of the intellectual development of NIE in relation to two property rights schools, established by Cheung and Williamson, stemming from Coase. Coasian NIE is distinct from other forms (older or newer) of institutionalism by stressing the importance of transaction costs, which can be ordinally measured, and institutional arrangements.

The research question is if and how the credibility thesis is compatible with the two specified versions of the Coase Theorem. The evaluation, based on a textual review of the relevant research papers, adopts the stance that both the credibility thesis and the transaction cost driven Coase Theorem are positivist and neither theory has professed to justify the *status quo* or promote any specific social-political regime or institutional arrangement.⁴ As regards the selection of institutions informed by the thinking of Coase (1960), Cheung (1982) and North

(1990) focused on transaction costs and institutional arrangements.

This review is timely and should be useful, as several researchers (Xu, 2011⁵, He et al., 2019, Fan et al., 2022) have sought to combine the Credibility Thesis with the Coasian transaction cost concept.

The credibility thesis has become more influential at a time when China faces great challenges in its development after being taken off the list of developing countries by some Western nations, which had entitled it to preferential treatment. Before Coase passed away in September 2013, preparations had been made to celebrate his 104th birthday in Beijing and then Hong Kong with his friends, especially his former colleague, Steven Cheung. Like his fellow economist, 1976 Nobel laureate Milton Friedman, Coase was highly optimistic about China’s sustained economic development.

While the Coase Theorem, based on Coase’s (1960) paper on social cost, has several formalised versions including those by 1982 Nobel laureate Stigler (1987); Lai (2007), Ho’s credibility thesis has hitherto remained a host of general ideas liberally tapped by supporting researchers to organise their empirical studies. This attempt to canvass the general compatibility of the two theories, which Fan et al. (2019) did not spell out, was based on their applicability to empirical land use policy and planning inquiry. Hopefully it will stimulate efforts to formalise Ho’s (2014), (2017), (2018) thesis. Prior to the author’s further inquiry, it should be pointed out that NIE scholars such as Coase, Cheung, Barzel, and their students upheld two basic positivist premises, as will be discussed below.

2.1. First fundamental NIE premise: Efficiency under maximisation subject to

First, all markets, organisations (firms), or institutional outcomes, whether free or regulated, formal or informal, are *always* EFFICIENT under the postulate of maximisation (minimisation) subject always to constraints. All economic outcomes are constrained maxima or minima. That some find situations inefficient is due to a failure or an inability on the part of researchers to specify their relevant behavioural constraints (Cheung, 1968, 1969, 1970, 1974, 1987b, 1998, 2021). This stance accepts that everything that happens has an economic reason to occur, but does not justify the *status quo*.

To illustrate, in commenting on the “efficiency” of legislation, Cheung concluded:

...the world is inefficient only when the system chosen to analyze it fails to fully specify the gains and costs of every action described. But the specification of constraints sufficient to yield refutable implications may only be a subset of the specification sufficient to yield an efficient solution. Inasmuch as we have ignored the constraints binding legislative decision making, the implied solution in our analysis of price control falls short of satisfying the Pareto condition (Cheung, 1974: 71).

To elaborate, “efficiency” has been articulated by at least three distinct economic approaches⁶ in respect of, say, two different property rights/institutional scenarios, (a) and (b).

The first approach is neo-classical, which Cheung (1974) criticised. If Scenario (a) satisfies certain marginal identities such as $MV=MC$ in neo-classical economics, but (b) does not, then (a) is said to be “efficient,” while (b) would be inefficient.

The second approach is the “grass is greener” approach, which Demsetz (1969: 1) and Cheung (1970) considered a fallacy. The former criticised Arrow for committing it: (a) is what’s happening now

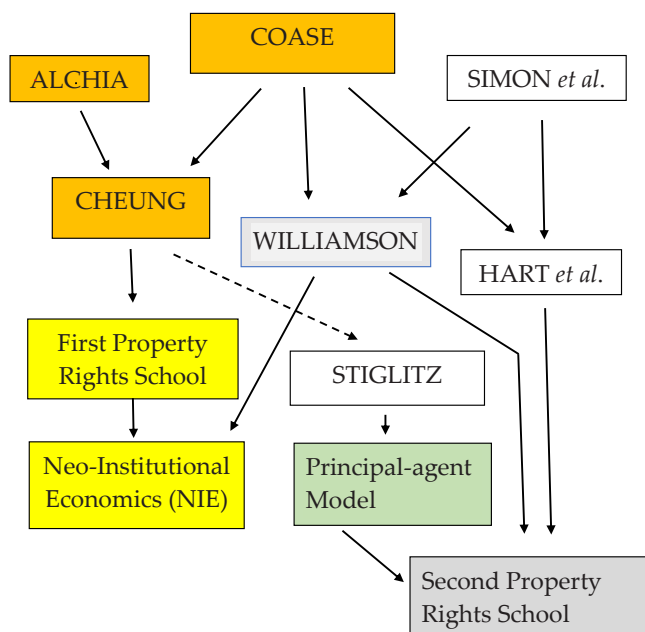


Fig. 1. Intellectual lineage of Neo-Institutional Economics (NIE). (From Figure 6.1 in Allen and Barzel 2016:78)).

³ Their theorems were affirmed by Coase (1988).

⁴ There are surely many ways to evaluate a theory. This essay treats both theories as tools for the empirical studies of respective concerns.

⁵ Xu surely consulted Cheung’s (2008) video presentation at the Chicago Conference in Coase’s presence. Cheung’s idea of *de facto* xian (county)-competition was published in Cheung (2014).

⁶ The author is indebted to his student Terry K.W. Lam for helping to clarify the three approaches by referencing Allen and Barzel (2016).

(inefficient), while (b) is an ideal to be attained that's better (efficient).

The third approach is Coase's comparative approach, recognised by Demsetz (1969): (a) is a scenario (real or practically possible⁷ – "realisable," according to Cheung (1970): 69) and incurs lower transaction costs/rent dissipation – while (b) incurs higher transaction costs/rent dissipation. Compared to (a), (b) is less efficient in synchronic or diachronic comparisons.

Empirical NIE researchers are generally very careful to avoid calling an actual scenario "inefficient," as this has a pejorative connotation.⁸ Instead, they prefer to make comparisons.

The first approach treats efficiency as an *all-or-nothing* concept. The second takes a broader approach by treating it as a *spectrum* that ranges from totally inefficient to totally efficient. This can be interpreted as a general neo-classical view of efficiency. However, such a distinction is not important when compared to the NIE concept of efficiency under the third approach.

According to Allen and Barzel (2016), the first and second approaches may be dealing with the "first-best efficiency" (i.e., maximising total social surplus), while the third (Coasian) approach "second-best efficiency" (i.e., maximising total social surplus net TC).

Cheung would have an influence on Douglass North, Yoram Barzel, Thomas Borcharding, and others. Combined with the work of Alchian, Demsetz, and the UCLA school, a type of "contract theory" arose that went under various names. This early property rights literature was not only heavily influenced by Coase, but bore the markings of Coasian methodology. It tended to be grounded in real world observations, was logically rigorous but mathematically minimalist, and **stressed operational tests**. It also developed many Coasian ideas.

First, it recognized that an exchange is a contractual relationship in one way or another. Exchange, therefore, takes place within an institutional setting involving social norms, customs, and laws- an exchange is not just a matter of goods, but of property rights. Understanding any exchange, therefore, requires an understanding of this setting. Hence, an explanation of the contract specifics is a question of property right allocation, and this choice had to be based on a transaction cost foundation.

Second, **this early literature avoided normative notions of efficiency**. Much is made of the fact that with zero transaction costs every rule leads to the same efficient outcome. What is less recognized is Coase's treatment of allocations in the rest of his 1960 paper and much of his other works. **Without explicitly using the phrase, Coase understood that allocations of property rights are second-best efficient.** (Barzel and Allen 2016: 71, emphasis author's).

2.2. Second fundamental NIE premise: Uni-directionality of the Coase Theorem

Second, the Coase Theorem is unidirectional in causation because it treats institutional designs/arrangements as *exogenous* policy/determining variables and resource allocation as a dependent variable. In

contrast, 1993 Nobel laureate North's (1990) analysis of changes in institutions was endogenous.

Stigler's invariant version of the Coase Theorem per Cheung (1992), based on Coase's, (1960) work, holds that a change in institutional arrangements does not affect resource allocation/outcome given zero transaction costs and clearly-defined property rights. The corollary of this is that in the real world of positive transaction costs, where property rights are always less than perfectly delineated, institutional designs affect resource outcomes.

An easy-to-understand real world example of this is smuggling. When two trading countries, irrespective of their political or cultural differences, differ in their import tariffs of a certain good, the country with the lower or no tariff smuggles to the country with the higher tariff. While the espoused rationale (official function) of any tariff may be economic protectionism or a targeted sanction, a study of its form (in terms of supply and demand) predicts that the actual function (actual consequence) is a reduction in the welfare triangle of trading countries, which breeds smugglers and corrupt regulators. The higher the tariff, the larger is the welfare loss and more serious will be the smuggling and corruption to bypass the regulation.

Cheung's version of the more versatile and, hence, the most powerful, Coase Theorem, attributed to Coase (1959) himself, holds that delimitation of rights is the prelude to market (i.e., voluntary) transactions. *There is no need for a perfect market or mature system of private property rights to exist.* Unlike what Hayek (1944) said, this does not even call for the rule of law or human rights, as trade occurs even within prison between guards and inmates, and inmates and inmates. In fact, this can be seen simply as a modernised version of Adam Smith's view of human beings as natural bartering animals.

Depending on the available data, both versions of the Coase Theorem are amenable to the empirical statistical testing of real-life examples beyond the confines of "economic analysis of law" of land use and planning policies. Coase passionately made the plea in his Nobel lecture: "Let us study the world of positive transaction costs" (Coase 1991: 717).

3. The growing influence of the credibility thesis

The credibility thesis has been well received in the land use policy field, as well as accepted and applied by researchers⁹ in China (Zhang, 2018; He et al., 2019; Chen, 2022; Chen and Yau, 2022; Fan et al., 2022; Wang and Liu, 2022; You et al., 2022; Zhou and Yau, 2023) and other countries such as Serbia (Zeković and Petovar, 2023), Ghana (Fold et al., 2018), Tanzania (Manara, 2022), Bangladesh (Gomes and Hermans, 2018), India (Goyal et al., 2022), Chile (Celhay and Gil McCawley 2020), as well as developed countries such as Germany (Cormeño et al., 2022), UK (Sheppard and McClymont, 2020), and 12 jurisdictions in Europe, Africa, Asia, Australia, and North America (Easthope et al., 2020), which invariably did not really deal with it its inner logic at any length.¹⁰

Good exceptions are the works by Pils (2016), Davy (2018), Groenewegen (2022) and Vatn (2023). Their supportive refinements of the credibility thesis contributions are explained below.

⁷ While it is possible to compare *ex post* two actual scenarios at different times (e.g. before and after a policy or legislative change), it is logically impossible to compare two "actual" scenarios that occur at the same time. In the latter situation, usually for an *ex ante* policy evaluation, a "realizable" proposal replaces an actual scenario. This, to some extent, is like Arrow's "ideal," but the focus is different.

⁸ 'Inefficient' is pejorative in everyday use. When it is used in a specialist sense: Pareto efficient, energy efficient, for example, it is not unless one widens the argument to argue that analysis in terms of X-efficiency (for any given specialist X) is biased in this or that way.

⁹ Those works in which Ho, for instance (Sun and Ho, 2018; Ghorbani et al. 2021; 2018; Krul et al. 2021), was involved as a co-author were excluded.

¹⁰ Note that most researchers (for instance, Chen & Zhu (2022), Manara (2022), Zhou and Yau (2023)) noted the idea that the credibility thesis has an "endogenous" dimension, but it was about the evolution of formal property rights as "systems" at the societal level rather than the same rights as "tools" at the operational (i.e., legislative and policy) level. Otherwise, researchers would not have bothered to apply the credibility thesis, including to *rank* credibility (Fan et al. 2019), to examine so many real world cases empirically.

3.1. Davy

Davy (2018), commenting on the credibility thesis, pointed out that this “function first” thesis can be contrasted with architect Louis Sullivan’s design principle of “form follows function” based on his saying that, “form ever follows function” (Sullivan, 1896: 408, 409) as the law in natural order.

Davy sought to improve the credibility thesis’ position by discussing the *type of form* that follows the functions of property. He found four meanings of a *formal* “form of property” (with *informal* counterparts), namely:

- (a) a mere shell for ownership (and its counterpart, property as a social function);
- (b) the sources of property law (*fontes iuris*) in international and domestic law;
- (c) property as a highly-formalized right in a well-ordered legal system of land cadastres and registers (and its counterpart, informal land rights); and
- (d) property as a standardized ‘bundle of rights’ (and its counterpart, polyrational or bespoke property).

Then Davy proposed abandoning formal *versus* informal dichotomies in favour of understanding property rights on land in terms of degrees of formality or credibility.

...since land rights, fulfilling their desired function, can be credible without full formalization or standardization, land policy must not consider dichotomies (such as ‘formal’ versus ‘informal’), but degrees of (in)formality or credibility. (Davy, 2018: Abstract)

While it is truism that there is no need to fully formalise (or have complete) property rights to operate a land (or any other) market (Coase 1959), which is ALWAYS efficient under the maximization postulate, as explained earlier, inefficient outcomes are only interpretations that fail to specify the relevant constraints on the part of the observer.

3.2. Pils

Pils (2018: 952), with all due respect, performed a disservice to the credibility thesis by seriously misrepresenting the spirit and content of so-called neo-liberalism, if not specifically NIE. Though she correctly held that any credible system had to protect basic rights, she offered no reason why and only made a passing reference to human rights and protection against forced evictions. Worse, she alleged, without evidence, that Hayek’s way of thinking was used by China to justify expropriations and forced evictions.

Official arguments have supported this system using the familiar languages of classical economic liberal theory and utilitarianism. They have defended the creation of private property rights drawing on classical liberal theorists such as Hayek, and defended the mechanisms for expropriations, forced evictions, and (re-)distribution of land use rights for the purpose of urban development using efficiency arguments. (Pils, 2018: 952, underline author’s).

The ABC of the neo-liberal, if not NIE, school is that the spirit of the free market, according to Hayek (1944) subject to the rule of law, is freedom of contract.

Pils apparently fell victim to not having read Hayek (1944), (1960) and likely misinterpreted primary sources to form her opinion. Hayek and most Austrian school thinkers would not have approved of expropriating or violating freedom. Thus spake Hayek (1944) in his *Road to Serfdom*:

...some academic socialists, under the spur of criticism, and animated by the same fear of the extinction of freedom in a centrally planned society, have devised a new kind of ‘competitive socialism’ which they hope will avoid the difficulties and dangers of central planning and combine the abolition of private property with the full

retention of individual freedom. Although some discussion of this new kind of socialism has taken place in learned journals, it is hardly likely to recommend itself to practical politicians. If it ever did, it would not be difficult to show...that these plans rest on a delusion and suffer from an inherent contradiction (Hayek, 1944, as edited by Bruce Caldwell 2006: 41).

Von Mises (1983) wrote this on personal freedom in politics:

To the princely principle of subjecting just as much land as obtainable to one’s rule, the doctrine of freedom opposes the principle of the right of self-determination of peoples, which follows necessarily from the principle of the rights of man. No people and no part of a people shall be held against its will in a political association that it does not want. The totality of freedom-minded persons who are intent on forming a state appears as the political nation; *patrie*, Vaterland becomes the designation of the country they inhabit; patriot becomes a synonym of freedom-minded (Von Mises, 1983: 60).

See also, for instance, Andersson et al., (2014) regarding urban affairs. NIE researchers focusing on the freedom of contract have promoted research on voluntary land readjustments. See, for instance, Van der Krabben and Lenferink (2018), Lai et al. (2022).

3.3. Groenewegen

Hitherto, the best consolidation of the interpretations was offered by Groenewegen (2022), whose own representation of the thesis is:

In an earlier paper published in this journal (Ho, 2014), the proposition is made that in the economies like China, property rights emerge in a spontaneous way out of the interactions of actors, which do not have the form of the institutions the blueprint of mainstream economics would prescribe. Nevertheless they fulfill functions in the economy, and the land-based economy in particular, in such a way that the behavior of actors results in impressive growth figures or other indicators of positive institutional performance, such as can be expressed in terms of lower transaction costs or greater sustainability. Consequently it is argued that existing property rights and institutions should be analyzed about their function and not their form. While form is linked to ‘intentional, purposeful design’ (blueprint), function is related to unintentional, spontaneous emergence’ (process) (Ghorbani et al., 2021). The proposition has its companion in the so-called credibility thesis (Ho, 2014, 2). When institutions fulfill specific functions and their form (private, collective, common, or public) is not of interest, it is suggested that another paradigm than mainstream economics, would be appropriate to understand how the “perverse” institutions emerge and function (Groenewegen 2022: 1).

Groenewegen attached a line of thinking to the idea that in mainstream economics, form pertains to blueprints. Then he depicted the interpretation of Ghorbani et al. (2021), who said that form is about blueprints and the function about process (not outcome). Groenewegen (2022) held to a blueprint approach to not only centrally-planned economies, but also to market economies, without specifying, with real-life examples, how the applications in either domain differed. Then he linked external credibility to the blueprint dimensions of both the static comparative NIE approach and the dynamic spontaneous NIE approach, but again without providing any concrete example.

The “NIE” approach Groenewegen dwelled on was attributed to Williamson, not its patriarchs: Alchian, Coase, or Cheung (Allen and Barzel, 2016, see Fig. 1). At any rate, his (Groenewegen, 2022) summary of the credibility thesis, when he offered his view of Ghorbani et al. (2021), is that, “institutions in society spontaneously emerge out of the behaviour of individual actors.” Granted that institutions are forms, they are determined, not determining, behaviour.

Generically, this makes perfect sense as a classical Marxist way of

thinking (a particular version of “political economy” (Marx 1859)) in which institutions (property, law, police, religions, families; treaties, and contracts) are part of the superstructure (epiphenomena) based on the foundations of society as the “mode of production” (technology & science) and the class “relations of production”. Ho, however, has never professed to using a Marxist approach and this paper does not assume that he does.

3.4. Vatn

Vatn (2023), from the stance of “an original institutionalist” position informed by John Commons:

- a) affirmed that the credibility thesis succeeded as an important and well-founded critique of neoliberalism, later citing the writings of Hayek (1973, 1988) and those of NIE scholar North;
- b) approved of the thesis endogeneity;
- c) held that the idea, “function trumps form,” is far too extreme because, like Chang (2007b), whom he did not cite, function cannot exist without form; and
- d) argued that the credibility of forms is as meaningful as credibility of functions.

Although Vatn (2023) hardly explained why “function trumps form” was too extreme other than repeating Chang, (2007a) remarks that a form can serve multiple functions and a function can be performed by different forms, his point should be credited with moderating the metaphysical dimension of the credibility thesis in relation to form and function.

Let us consider the formal and functional aspects of a brick factory along time from design, construction to post construction.

Before a brick factory is built, its architect ensures that its design, as required by the client, has a chimney that functions as part of an exhaust structure. At this moment in time, the design (form) is affected by the necessity for a through draught to ensure a constant supply of oxygen to ensure high temperature combustion (function) for brickmaking. Function influences form during the design stage. Upon development, function is endogenized in the form specified by the client.

After the factory is built, an observer who has no idea of its use can infer from the function of its chimney, a constitutive part of the building, the possible form (nature) of the entire built structure. Without expert industrial knowledge or corroborative evidence, the observer may err and conclude that any building with a tall chimney is a power plant. The observer is entitled to the opinion that the chimney is credible for this building as a “power plant” because a lot of smokes are coming out from the structure, which looks well built.

Therefore, function reflects upon, but does not entail, form. Still, the function-form dimension of the credibility thesis is not its essence. Nor is the onslaught it has rallied against NIE, as explained in the next section.

4. Is the case of the credibility thesis against or in support of the ideas of Coase?

Ho’s (2014) opening submissions are very clear and, by and large, correct about neo-institutional economics (but NOT about neo-classical economics, which actually assumes away or takes for granted institutions), which see institutions as instrumental to resource use.

In a purely *neo-liberal*, *neo-classical* economic perspective, institutional structure is considered as crucial for enabling new economic activities while minimizing transaction costs, i.e., the costs for enforcement, contracting, and information. It is maintained that institutions ill-equipped to respond efficiently to shifting economic opportunities should or will evolve into new institutional arrangements due to the discipline of the market – for example, the prospect of unexploited net gains will compel economic agents to insist on

new property-rights structures that can accommodate changes in relative prices and technology. (Ho, 2014:14, italics author’s)

Problems emerged when Ho (2014) assumed that NIE scholars all considered informal or customary property rights as inefficient. Some old-school, neo-classical welfare economists labouring in the field of development economics during the 1970s might have thought the same way, but surely not those from the UCLA, Chicago, and Washington school economists such as Alchian, Coase, Cheung, or their students, who considered that all institutions are shaped by transaction costs to fit particular situations.

One reason is that, due to its informal feature, customary land tenure is regarded, especially by neo-liberal scholars, as irreconcilable with a modernized, industrialized economy that requires clearly titled assets with secure property rights to allow for efficient market transactions (Ho, 2014: 14).

Suffice it to say that Cheung, as a NIE proponent in focus, did not consider first best efficiency as an important concept for any arrangement of property rights. The “communal rights” in Alchian and Demsetz (1973: 19-22), his teachers, referred to such rights as *government regulations* of hunting and the rental market, holding that “communal ownership is technically associated with state ownership” (p.19). They did not consider the concept of “efficiency” at all. What they did point out was a constrained maximization behaviour that has no direct bearing on efficiency.

A further reading of Ho points to the likelihood that he did not properly interpret the original sources:

These scholars will propose the argument that the informality, communality, and fluidity of customary land-tenure arrangements are equal to tenure insecurity and will lead to market failure and inefficiencies (Dorner, 1972; Miceli, 2000). *The principles of the neo-liberal school can be traced back to influential economists (e.g., Coase, 1960; Alchian and Demsetz, 1973), whose writings legitimized privatized land ownership as the sole most efficient and secure institutional arrangement.* Thus, in the restructuring of markets, secure private property should be among the ultimate objectives of development or, as Miceli et al. (2000):370 and 387) asserted... (Ho, 2014: 14, italics author’s).

Ho’s view of NIE thinking, like most of his followers, likely misinterpreted primary sources. Coase and Alchian were cautious positivists and the better view is that Coase’s approach is contingent (case-by-case) thinking, which can be summarised as below.

Whether a policy/legislative change (whether relating to planning, land, housing etc), as a formal institutional change, is ‘good’ or ‘bad’, ‘effective’ or ‘ineffective’ must be a *case-specific, content-specific, system-specific*, and *comparative* rather than a general *a priori* categorical or universal question. In other words, judgement of a policy can only be meaningfully evaluated in terms of: (a) the differences in the institutional design of different policy systems or (b) changes in rights assignment within a given policy system (Lai, 1997: 196). The following extract demonstrates this submission:

A better approach would seem to be to start our analysis with a situation approximating that which actually exists [say whether there is any prior zoning/land control element], to examine the effects of a proposed [zoning/land] policy change, and to attempt to decide whether the new situation [with the inception of (re)zoning/land policy] would be, in total, better or worse than the original one (Coase, 1960: 43, brackets author’s).

That quote can be compared to this statement of Demsetz (1969), which criticised Arrow for committing “the grass is always greener” fallacy.

The view that now pervades much public policy economics implicitly presents the relevant choice as between an ideal norm and an

existing “imperfect” institutional arrangement. This *nirvana* approach differs considerably from a *comparative institution approach in which the relevant choice is between alternative real institutional arrangements*. In practice, those who adopt the *nirvana* viewpoint seek to discover discrepancies between the ideal and the real and if discrepancies are found, they deduce that the real is inefficient (Demsetz, 1969: 1).

Irrespective of the validity of Ho or his followers’ understanding of NIE, what actually is the gist of the credibility thesis? The answer is that it is a theory, held by Ho (2014) as an axiom (hereafter the axiom) which states that the rural land lease system is a welfare, not a commercial, institution.

...the basic axiom (is) that the form of China’s rural land lease can be explained by the function that it currently fulfills. Put differently, its alleged tenure insecurity is, in fact, the result of its institutional function. The function that it most likely fulfills has already been repeatedly pointed out by various students of development, and Chinese development in particular: it is an institution for the provision of rural social welfare rather than for the commercial transaction of land assets (Ho, 2014:17, emphasis & underline author’s).

Many questions can be raised as to what the key concepts of tenure insecurity, welfare, and commerce mean in the special situation of China. Assuming that they carry the same meanings in common law, how does the axiom tally with the Coase Theorem?

The author will address this question in the next section. In the meantime, there is a need to highlight those parts of the axiom, a kind of *ratio decidendi*, in which Ho accepted generally four points:

- (1) form and function are *distinct and recognisable* concepts;
- (2) *the function trumps/presides over the form*; specifically
- (3) there is such an institutional form called “rural land lease”; and
- (4) institutional change stems from a lack of credibility.

Point 3 is important, as the lease is an observable, contractual policy tool that is in use, even though Ho also stated that institutional forms are unimportant.

It is also not about the necessity of formal, private and secure, or informal, common and insecure property rights to make the economic clock tick. Credibility is about finding out what works in a given space and time-dependent context before the question of form is even asked. Therefore, the research on credibility would not focus on validating whether institutions are more formal, as the economy becomes more developed, but it would turn the question around and ask what levels of credibility institutions command in a particular context (Ho, 2014:24).

Applications of the axiom by others, in fact, dwelled on less-than-perfect formal and/or informal institutions.

5. Reconciling the credibility thesis & Coase Theorem

Having explained that the attack on NIE by Ho and his followers was misguided, the author sees no good reason why the axiom of the credibility thesis cannot be treated as compatible with and, hence, able of converging with the Coase Theorem. Bear in mind that both versions of the theorem do not presume, prefer, or prescribe any formal or informal property rights arrangement.

Before explaining how the two theories can converge, the author will categorise formal and informal.

5.1. The formal and informal institutional form/function

In Thomist metaphysics, “form” is paired with “substance” to define

a being such as a tree, bread or wine. Form is what makes the substance recognisable or observable. The fields of land use and planning (zoning) policy seldom employ metaphysics.¹¹ They often loosely use the term ‘form’ to mean that which is ‘formal’ as opposed to ‘informal’. Table 1 presents eight meanings of formal versus informal institutional ‘forms’ in land use policy studies and often associated with the term “property rights,” as presented in Table 1.¹²

These are official vs. unofficial (Borchard, 1940; Akaateba et al., 2018), legal vs. non-legal (Macinko and Bromley, 2001; Holvoet and Muys, 2004; Lai et al., 2017; Adriansyah and Gultom, 2022), planned/ordered vs. unplanned/spontaneous (Busteed, 1932; Hayes-Roth and Thorndyke, 1980; Foldvary and Minola, 2020) apparent/nominal vs. real/actual (Higgs, 1995; Machan, 2003; Greiner and Lankester, 2007), unambiguous vs. ambiguous (Li, 1996; Putterman, 1995; Clarke, 2003; Lai and Lorne, 2014), complete vs. incomplete (Veblen, 1908; Fischel, 1978; He et al., 2019), institutional vs. non-institutional (Cole, 2015), and professional vs. amateur (Aiken and Colin 1986, Antonson and Jacobsen, 2014; Maderson, 2023).

The most relevant meanings in Table 1 for discussion here are 1, 2, 3, and 4 because followers of the credibility thesis do not throw away all forms, but concentrate on the actual resource outcomes as: (a) a function or (b) an informal form. After all, they all desire to formulate or rely on a better formal policy, as the following examples demonstrate.

The case study of artisanal mining in Ghana by Fold et al. (2018), carried out as an informal (and illegal) activity without a mining license, the payment of public fees, or complying with environmental and labour regulations, found a durable informal institution that regulated mining activities. After presenting their well-researched case to support the credibility thesis, the authors concluded that:

Table 1
Eight meanings of formal *versus* informal institutional forms in land use policy studies.

Formal institutional Form/function	Informal Institutional Form/function	Application (Famous user) [Citations until 31 July 2023 in this journal]
1.Official	1.Unofficial	Unofficial rights (Borchard, 1940) [Unofficial norms and regulations: one time]
2.Legal	2.Non-legal	“Non-legal property rights” (Macinko and Bromley, 2001; Holvoet and Muys, 2004; Adriansyah and Gultom, 2022; Lai et al. 2017) [Legal property right: one time]
3.Unambiguous	5.Ambiguous	Ambiguous property rights (Li, 1995, 1996) [42 times]
4.Complete	6.Incomplete	Incomplete property rights (Veblen, 1908) [27 times]
5.Planned/ordered	3.Unplanned/spontaneous	Spontaneous planning (Busteed, 1932; Hayes-Roth and Thorndyke, 1980; Foldvary and Minola, 2020) [two times]
6.Apparent/nominal	4.Real/actual	Nominal property rights (Higgs, 1995; Machan, 2003; Greiner and Lankester, 2007) [one time]
7.Institutional	7.Non-institutional	Non-institutional rights (Cole, 2015) [0 times]
8.Professionally trained/educated	8.Amateur/self-learned	(Aiken and Colin 1986, Antonson and Jacobsen, 2014; Maderson, 2023) [17 times]

¹¹ See, for instance, Lai (2014).
¹² Note that the credibility thesis has been applied by authors of different persuasions to corruption (Wedeman, 2017), the economics of state-owned enterprises (Lo, 2020), and financial governance (Yeung and Lui, 2022) in connection to China and the labour market (Miyamura, 2016) in India. This paper focuses on land use and planning policy.

...the institutional ‘lessons learned’ from cases like those examined in this study will be incorporated into the design of support policies targeting the informal artisanal sector and aiming to exploit its economic and social impacts on the poorer strata of the population. Important components could, for instance, include low financial barriers to entry, the possibility for modular acquisition and the cession of small plots over a given period, flexibility in plot-holder and worker functions, and low fees for resource exploitation to legitimate landowners... (Fold et al., 2018: 930, underline author’s).

The case study of Bangladesh by Gomes and Hermans (2018) found Simon’s (1972) satisficing approach explain policy acceptance better than the credibility thesis. Above all, “While no institutions were changed in the process, already existing (and credible) constitutional level rules were invoked to challenge the legal basis of this abstraction project.” Are constitutional level rules, being formal and institutional, not a matter of form (Gomes and Hermans, 2018: 940)? Yet, this metal-level study is much less policy-relevant than empirical studies of specific real world cases by Fan et al. (2019) on Inner Mongolia in China and by Arvanitidis and Papagiannitsis (2020) on Athens.

The case study of the practice of the customary, informal mode of leasing arrangements in India by Goyal et al. (2022) was policy-oriented:

Informality makes the existing institutional arrangement ‘credible’ in the eyes of both the tenants and owners. This raises the questions of whether policy prescriptions on intricate land related issues should entail appreciation of prevailing informal tenant customs, regulating them, or simply letting them be and realign agrarian support and delivery systems around this embedded informality (Goyal et al. 2022: Abstract, underline author’s).

Researchers using Chinese examples either adopted: (a) a similar policy-oriented stance or (b) watered down the “function trumps form” slogan by acknowledging the influence of form. An example of (a) is the study by Chen (2022). Regarding (b), Chen (2022) held that:

...the statement that “institutional form follows institutional function” or “institutional function presides over form” does not mean that institutional form is determined by institutional function. The Credibility Thesis holds that the two are tied together in an endogenous relation Chen (2022: 11).

In simple terms, form and function are distinct but interactive.

5.2. Relating the credibility theory to the Coase Theorem

On the basis that: (a) institutional form and (b) institutional function are distinctly observable policy matters, as affirmed by subscribers to the credibility thesis, and (c), an aspect of institutional function is a resource allocation pattern/outcome, it is theoretically and practically safe to say that the two theories are on common ground regarding *exogenous* policy design. Chang’s (2007b) exposition points to this position:

I totally agree that particular forms of institutions do not guarantee particular outcomes as we see in numerous failures of institutional transplantation. To put it another way, institutional forms may not matter that much, as the same function can be performed by different institutional forms...However, this emphasis on functions over forms should not be taken too far. While a particular form does not guarantee the fulfilment of a particular set of functions, a complete neglect of forms makes it very difficult for us to make any concrete policy proposal. (Chang, 2007b: 20).

The best example of showing the point is a statistical study by He et al. (2019), which showed that even without clearly-defined property rights, a well-functioning market of small property rights housing (SPRH) existed. The policy implication is that there is no need to

eradicate or “modernise” this form of informal housing. This study, which referenced Sun and Ho (2018) and Coase (2013),¹³ illustrates the Coase Theorem identified by Cheung.

6. Discussion & conclusion

Many research efforts of diverse persuasions, while not intended to be alien to Coasian thinking, do, in fact, verify the invariant version of the Coase Theorem. A good example is the project of Adriansyah and Gultom (2022) on formal land registration in Indonesia, which found that “changes in land property rights status from incomplete to complete property rights, has no effect on the productivity of rice farming, suggesting that to improve rice productivity” (Adriansyah and Gultom, 2022: Abstract). Changes in institutional design regarding land registration did not affect resource allocation in terms of productivity. Another example is the project of Wang & Liu (2021) on Mainland Chinese nature reserves, which examined “how administrative changes affect the provision of public services” (i.e., how policy changes affect policy outputs).

Although Ho’s credibility thesis, as embodied in his earlier works (Ho, 2014, 2017, 2018), has been applied to a wide range of statistical studies on urban phenomena in China and other countries, the thesis has hitherto not been formalised à la the Coase Theorem.

This paper’s attempt to distil the gist of the thesis as an “axiom” will, hopefully, lead to its eventual formalisation and give greater credit to Ho for his innovation. The common ground of the credibility thesis and Coase Theorem lies in their relevance to law and policy as determining variables (with resource outcomes as determined variables). These are referred to as “form” in the vocabulary of Ho and his disciples, and as an “institutional arrangement” in the language of NIE researchers.

This paper avoids eclecticism and adhocism, which a loose reading of the credibility thesis can bring. It does so by clarifying the meaning of form and function and highlighting the policy concerns of researchers who adopted the thesis. Treating function as resource allocation and form as a matter of policy choice, it holds that the thesis can fit into the Coase Theorem. The users of the credibility thesis do not throw away all forms, but concentrate on the actual policy outcomes (in resource allocation terms) as: (a) a function or (b) an informal form. In this way, they often apply, by default, the Coase Theorem.

In terms of application, both the Credibility Thesis and Coase Theorem have affinity with case-by-case contextual studies of the “efficiency” of institutions. It is hoped that this review has made a fruitful empirical assessment of their joint application. However, whether the choice of institutions is exogeneous or exogenous is not the focus of this paper. Suffice it to say that Paldam and Gundlach (2008) found “convincing evidence” supporting both (a) the endogenous view that economic development is causal to institutional development; and (b) the “primacy of institutions” view that economic development is a consequence of an exogenous selection of institutions. As far as land use planning and policy is concerned, the enactment of the 1785 *US Land Ordinance*, which has shaped the US pattern of land parcel delineation, is a good example of the latter view (Geib, 1985; North and Rutten, 1987).

CRedit authorship contribution statement

Lawrence W.C. Lai: Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Conceptualization.

Declaration of Competing Interest

I have no conflict of interest declared.

¹³ In fact, a reprint of Coase (1960) to commemorate his passing away.

Data availability

No data was used for the research described in the article.

Acknowledgements

The author is indebted to three anonymous referees, Professor Jaap Zevenbergen and Professor Stephen N.G. Davies for their comments on the manuscript of this paper. All faults are his.

References

- Adriansyah, Jefri, Gultom, Yohanna M.Lidya, 2022. Is complete land property rights increase productivity of rice farming? *BHUMI: J. Agrar. Dan. Pertanian* 8 (2), 124–142.
- Aiken, S.Robert, Colin, H.Leigh, 1986. Land use conflicts and rain forest conservation in Malaysia and Australia: The Endau-Rompin and Gordon-Franklin controversies. *Land Use Policy* 3 (3), 161–179.
- Akaateba, M.A., Huang, H., Adumpo, E.A., 2018. Between co-production and institutional hybridity in land delivery: Insights from local planning practice in peri-urban Tamale, Ghana. *Land Use Policy* 72 (2018), 215–226.
- Alchian, Armen A., Demsetz, Harold, 1973. “The property right paradigm. *J. Econ. Hist.* 33 (1), 16–27.
- Allen, Douglas W., Barzel, Yoram, 2016. Coase’s contribution to contract theory.”. In: Claude, M.énard, Bertrand, Elodie (Eds.), *The Elgar Companion to Ronald H. Coase*. Edward Elgar Publishing, Cheltenham, pp. 68–81.
- Andersson, Emanuel, David, Moroni, Stefano (Eds.), 2014. *Cities and Private Planning: Property Rights, Entrepreneurship and Transaction Costs*. Edward Elgar, Cheltenham.
- Antonsen, Hans, Jacobsen, Jens Kr. Steen, 2014. Tourism development strategy or just brown signage? Comparing road administration policies and designation procedures for official tourism routes in two Scandinavian countries. *Land Use Policy* 36, 342–350.
- Arvanitidis, Paschalis A., Papagiannitsis, George, 2020. Urban open spaces as a commons: exploring the credibility thesis in the self-governed Navarinou park of Athens, Greece. *Cities* 97 (202480), 10–1016.
- Borchard, Edwin, 1940. The ‘minimum standard’ of the treatment of aliens. *Mich. Law Rev.* 38 (4), 445–461.
- Busteed, John, 1932. “Soviet Russia.” *Studies. Ir. Q. Rev.* 531–548.
- Celhay, Pablo, Gil McCawley, Diego, 2020. The function and credibility of urban slums: Unexpected evidence on informal settlements and affordable housing in Chile. *Cities* 97. <https://doi.org/10.1016/j.cities.2020.102605>.
- Cermeño, Helena, Bretfeld, Nada, Bernhardt, Floris, 2022. Knowledge practices within and beyond sharing and commoning urban initiatives. *Front. Sustain. Cities* 4, 767365. <https://doi.org/10.3389/frsc.2022.767365>.
- Chang, Ha. Joon, 2007a. “Institutional change and economic development: An introduction.”. In: Chang, Ch1 Ha. Joon (Ed.), *Institutional Change and Economic Development*. United Nations University Press, Tokyo, pp. 1–16.
- Chang, Ha. Joon, 2007b. Understanding the relationship between institutions and economic development – some key theoretical issues. In Ch.2 Ha Joon Chang Eds. *Institutional Change and Economic Development*. United Nations University Press, Tokyo, pp. 17–34.
- Chen, Huirong, 2022. Linking institutional function with form: Distributional dynamics, disequilibrium, and rural land shareholding in China. *Land Use Policy* 120, 106283.
- Cheung, Steven N.S., 1968. Private property rights and sharecropping. *J. Political Econ.* 76 (6), 1107–1122.
- Cheung, Steven N.S., 1969. Transaction costs, risk aversion, and the choice of contractual arrangements. *J. Law Econ.* 12 (1), 23–42.
- Cheung, Steven N.S., 1970. The structure of a contract and the theory of a non-exclusive resource. *J. Law Econ.* 13 (1), 49–70.
- Cheung, Steven N.S., 1974. A theory of price control. *J. Law Econ.* 17 (1), 53–71.
- Cheung, Steven N.S., 1982. *Will China Go Capitalist?* IEA, London.
- Cheung, Steven N.S., 1987a. “Coase Ronald Harry.”. In: Eatwell, J., Milgate, M., Newman, P. (Eds.), *The New Palgrave: A Dictionary of Economics*. Macmillan, London, pp. 455–457.
- Cheung, Steven N.S., 1987b. “Common property rights.”. In *The World of Economics*. Palgrave Macmillan UK, London, pp. 83–86.
- Cheung, Steven N.S., 1992. “On the new institutional economics.” (Paper delivered at the Nobel Symposium, Stockholm, 17–20 August 1990). In: Werin, L., Wijkander, H. (Eds.), *Contract Economics*. Blackwell, London, UK, pp. 48–65.
- Cheung, Steven N.S., 1998. The transaction costs paradigm 1998 presidential address western economic association. *Econ. Inq.* 36, 514–521.
- Cheung, Steven N.S. “The economics system of China.” Paper presented to the Conference on “China’s Economic Transformation” 14–18 July 2008, University of Chicago Business School Downtown Gleacher Center, Chicago.
- Cheung, Steven N.S., 2014. The economics system of China. *Man Econ.* 1 (1), 1–49.
- Cheung, Steven N.S., 2021. On the observability requirement in economics as an axiomatic science. *Man Econ.* 8 (1), 1–19.
- Clarke, Donald C., 2003. Economic development and the rights hypothesis: the China problem. *Am. J. Comp. Law* 51 (1), 89–112.
- Coase, Ronald H., 1960. The problem of social cost. *J. Law Econ.* 3 (1), 1–44.
- Coase, Ronald H., 1988. *The Firm, the Law and the Market*. Chicago University Press, Chicago.
- Coase, Ronald H., 1992. The institutional structure of production. The 1991 Alfred Nobel Memorial Prize Lecture in Economic Science (Sept.). *Am. Econ. Rev.* 82 (4), 713–719.
- Coase, Ronald H., 2013. The problem of social cost. *J. Law Econ.* 56 (4), 837–877.
- Cole, Daniel H., 2015. Economic property rights’ as ‘nonsense upon stilts’: a comment on Hodgson. *J. Inst. Econ.* 11 (4), 725–730.
- Commons, John R., 1932. Institutional economics: Comment by professor Commons. *Am. Econ. Rev.* 22 (2), 264–268.
- Davy, Benjamin, 2018. After form. The credibility thesis meets property theory. *Land Use Policy* 79, 854–862.
- Demsetz, Harold, 1969. Information and efficiency: another viewpoint. *J. Law Econ.* 12 (1), 1–22.
- Dorner, P., 1972. *Land Reform and Economic Development*. Penguin, London.
- Easthope, Hazel, van den Nouweland, Ryan, Thompson, Sian, 2020. Apartment ownership around the world: Focusing on credible outcomes rather than ideal systems. *Cities* 97, 102463. <https://doi.org/10.1016/j.cities.2019.102463>.
- Fan, Shengyue, He, Miao, Zhang, Tianyu, Huo, Yajing, Fan, Di, 2022. Credibility measurement as a tool for conserving nature: Chinese herders’ livelihood capitals and payment for grassland ecosystem services.”. *Land Use Policy* 115, 106032.
- Fan, Shengyue, Yang, Jinfei, Liu, Wenwen, Wang, He, 2019. Institutional credibility measurement based on structure of transaction costs: A case study of Ongniud Banner in the Inner Mongolia Autonomous Region. *Ecol. Econ.* 159, 212–225.
- Fischel, William A., 1978. A property rights approach to municipal zoning. *Land Econ.* 54 (1), 64–81.
- Fold, Niels, Allotey, Albert N.M., Kalvig, Per, Moeller-Jensen, Lasse, 2018. Grounding institutions through informal practice: Credibility in artisanal mining of aggregates, Ghana.”. *Land Use Policy* 79, 922–931.
- Foldvary, Fred, Minola, Luca, 2020. Cellular democracy as a necessary condition for completely spontaneous urban planning and order. *Cosm. + Taxis* 8.
- Geib, George W., 1985. The land ordinance of 1785: A bicentennial review. *Indiana Mag. Hist.* 1–13.
- Ghorbani, Amineh, Ho, Peter, Bravo, Giangiacomo, 2021. Institutional form versus function in a common property context: the credibility thesis tested through an agent-based model. *Land Use Policy* 102, 105237.
- Gomes, Sharlene L., Hermans, Leon M., 2018. Institutional function and urbanization in Bangladesh: How peri-urban communities respond to changing environments. *Land Use Policy* 79, 932–941.
- Goyal, Yugank, Choudhury, Pranab Ranjan, Ghosh, Ranjan Kumar, 2022. Informal land leasing in rural India persists because it is credible. *Land Use Policy* 120, 106299.
- Greiner, Romy, Lankester, Allyson, 2007. Supporting on-farm biodiversity conservation through debt-for-conservation swaps: Concept and critique. *Land Use Policy* 24 (2), 458–471.
- Groenewegen, John, 2022. Institutional form (blueprints) and institutional function (process): Theoretical reflections on property rights and land. *Land Use Policy* 121, 106300. <https://doi.org/10.1016/j.landusepol.2022.106300>.
- Hayek, Friedrich H., 1944. *The Road to Serfdom*. University of Chicago Press, Chicago.
- Hayek, Friedrich H., 1960. *The Constitution of Liberty*. University of Chicago Press, Chicago.
- Hayek, F.A., 1973. *Law, Legislation and Liberty. Rules and Order*. University of Chicago Press, Chicago.
- Hayek, F.A., 1988. *The Fatal Conceit: The Errors of Socialism*. of Collected works of F.A. Hayek. Routledge, London.
- Hayes-Roth, Barbara & Perry W. Thorndyke. “Decision making during the planning process.” Vol.1213. Rand, 1980.
- He, Shenjing, Wang, Dong, Webster, Chris, Chau, K.W., 2019. Property rights with price tags? Pricing uncertainties in the production, transaction and consumption of China’s small property right housing.”. *Land Use Policy* 81, 424–433.
- Higgs, Robert, 1995. Coercion is not a societal constant: Reply to Samuels. *Crit. Rev.* 9 (3), 431–436.
- Ho, Peter, 2014. The ‘credibility thesis’ and its application to property rights: (In)secure land tenure, conflict and social welfare in China. *Land Use Policy* 40, 13–27.
- Ho, Peter, 2017. “The ‘credibility thesis’ and its application to property rights Ch.3 in Peter Ho. *Unmaking China’s development: The Function and Credibility of Institutions*. Cambridge University Press, pp. 81–115.
- Ho, Peter, 2018. Institutional function versus form: The evolutionary credibility of land, housing and natural resources. *Land Use Policy* 75, 642–650.
- Holvoet, B., Muys, Bart, 2004. Sustainable forest management worldwide: a comparative assessment of standards. *Int. For. Rev.* 6 (2), 99–122.
- Krull, Kees, Ho, Peter, Yang, Xiuyun, 2021. “Land titling as a conflict remedy or driver? Analyzing institutional outcomes through latent and manifest conflicts in China’s forest sector.”. *Land Use Policy* 100, 104880.
- Lai, Lawrence W.C., 1997. Property rights justifications for planning and a theory of zoning. *Prog. Plan.* 3 (48), 161–245.
- Lai, Lawrence W.C., 2014. Planning by contract: Two dialogues. In: Andersson, D.E., Moroni, S. (Eds.), *Cities and Private Planning: Property Rights, Entrepreneurship and Transaction Costs*. Edward Elgar, Cheltenham, pp. 135–152.
- Lai, Lawrence W.C., Davies, Stephen N.G., Chau, K.W., Choy, Lennon H.T., Chua, Mark Hansley, Lam, Terry K.W., 2022. “A centennial literature review (1919–2019) of research publications on land readjustment from a neo-institutional economic perspective.”. *Land Use Policy* 120, 106236.
- Lai, Lawrence W.C., Lorne, Frank T., 2014. Ambiguous property rights: A taxonomic and exploratory account of post-colonial rural housing in Chinese Hong Kong. *Urban Stud.* 51 (10), 2052–2067.

- Lai, Yani, Zheng, Xian, Choy, Lennon H.T., Wang, Jiayuan, 2017. Property rights and housing prices: An empirical study of small property rights housing in Shenzhen, China. *Land Use Policy* 68, 429–437.
- Li, David D. Ambiguous property rights in the gray market: an analysis of the Chinese non-state sector. Paper presented at the Allied Social Science Associations Meeting, Washington, DC, January, 1995.
- Li, David, 1996. A theory of ambiguous property rights in transition economies: the case of the Chinese non-state sector. *J. Comp. Econ.* 23 (1), 1–19.
- Lo, Dic, 2020. State-owned enterprises in Chinese economic transformation: Institutional functionality and credibility in alternative perspectives. *J. Econ. Issues* 54 (3), 813–837.
- Machan, Tibor R., 2003. Government regulation vs. the free society. *Bus. Prof. Ethics J.* 22 (1), 77–83.
- Macinko, Seth, Bromley, Daniel W., 2001. Through the Looking Glass: Marine fisheries policy for the future. Final Rep. Pew Charit. Trusts.
- Maderson, Siobhan, 2023. Co-producing agricultural policy with beekeepers: Obstacles and opportunities. *Land Use Policy* 128, 106603.
- Manara, Martina, 2022. From policy to institution. *Environ. Plan. A* 54 (7), 1368–1390.
- Miceli, Thomas J., Sirmans, C.F., Turnbull, Geoffrey K., 2000. “The dynamic effects of land title systems. *J. Urban Econ.* 47 (3), 370–389.
- Miyamura, Satoshi, 2016. Rethinking labour market institutions in Indian industry: forms, functions and socio-historical contexts. *J. Peasant Stud.* 43 (6), 1262–1284.
- North, Douglass C., 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge University Press, Cambridge.
- North, Douglass C., Ruten, Andrew, 1987. The Northwest Ordinance in historical perspective. *Essays on the Economy of the Old Northwest Athens*. Ohio University Press, pp. 19–31.
- Paldam, Martin, Gundlach, Erich, 2008. Two views on institutions and development: The grand transition vs the primacy of institutions. *Kyklos* 61 (1), 65–100.
- Pils, Eva, 2016. Assessing evictions and expropriations in China: Efficiency, credibility and rights. *Land Use Policy* 58, 437–444.
- Pils, Eva, 2018. Reprint of ‘Assessing evictions and expropriations in China: Efficiency, credibility and rights. *Land Use Policy* 79, 952–959.
- Prychitko, I David, 1997. *Why Economists Disagree: An Introduction to the Alternative Schools of Thought*. State University of New York Press, New York.
- Putterman, Louis, 1995. The role of ownership and property rights in China’s economic transition. *China Q.* 144, 1047–1064.
- Sheppard, Adam, McClymont, Katie, 2020. Credibility without legitimacy? Informal development in a highly regulated context. *Cities* 97, 102520. <https://doi.org/10.1016/j.cities.2019.102520>.
- Simon, Herbert A., 1972. *Theories of Bounded Rationality: Decision and Organization*. North Holland Pub. Co, pp. 161–176.
- Stigler, George J., 1987. *The Theory of Price*, 4th ed. Macmillan, New York.
- Sullivan, Louis H., 1896. The tall office building artistically considered. *Lippincotts Mag.* March 403–409.
- Sun, Li, Ho, Peter, 2018. Formalizing informal homes, a bad idea: The credibility thesis applied to China’s “extra-legal” housing. *Land Use Policy* 79, 891–901.
- Van der Krabben, Erwin, Lenferink, Sander, 2018. The introduction of urban land readjustment legislation as an institutional innovation in Dutch land policy. *Habitat Int.* 75, 114–121.
- Vatn, Arild, 2023. The credibility thesis”: A commentary from an original institutionalist position. *Land Use Policy* 131, 106717.
- Veblen, Thorstein, 1908. Fisher’s capital and income. *Political Sci. Q.* 23 (1), 112–128.
- Von Mises, Ludwig. *Nation, State and Economy: Contributions to the Politics and History of Our time*. 1983, ISBN 0-8147-9659-1 (<https://mises-media.s3.amazonaws.com/Nation%2C%20Stat%2C%20and%20Economy.3.pdf>).
- Wang, Weiye, Liu, Jinlong, 2022. Lessons of government centralization and credibility: A qualitative case-study of administrative change in jiuzhaigou nature reserve, China (1982–2018). *Land Use Policy* 113, 105907.
- Wedeman, Andrew, 2017. Bribery with Chinese characteristics? Corruption, fuzzy property rights, and rapid growth. *East Asia* 34 (2), 87–111.
- Xu, Chenggang, 2011. The fundamental institutions of China’s reforms and development. *J. Econ. Lit.* 49 (4), 1076–1151.
- Yeung, Godfrey, Lui, Tai-lok, 2022. The Sinicisation of the Hong Kong economy or the Hongkongnisation of the Greater Bay Area, 2022 *Asia Pac. Bus. Rev.* 28 (5), 719–739. <https://doi.org/10.1080/13602381.2022.2096201>.
- You, Heyuan, Zhang, Jinrong, Song, Yan, 2022. Assessing conflict of farmland institutions using credibility theory: Implications for socially acceptable land use. *Land Use Policy* 112, 105817.
- Zeković, Slavka, Petovar, Ksenija, 2023. “Credibility of legalization: Illegally constructed buildings in Serbia.” (June). *Spatium* 49, 51–634.
- Zhang, Yue, 2018. The credibility of slums: Informal housing and urban governance in India. *Land Use Policy* 79, 876–890.
- Zhou, Z., Yau, Y., 2023. Revisiting institutional credibility of informal rental housing in Shenzhen? *J. Urban Manag.* <https://doi.org/10.1016/j.jum.2022.12.002>.