


RESEARCH ARTICLE

# Transactions and legal institutionalism: part I – six leading thinkers

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## Abstract

Prominent scholars have complained of inadequate clarity and agreement on what transactions are, and how their costs are measured. This two-part article explores this topic and suggests an alternative approach. This part examines different meanings of transaction cost used by leading scholars in this area, including John R. Commons, Ronald H. Coase, Oliver E. Williamson, Douglas C. North, Douglas W. Allen, and Yoram Barzel. It reveals prominent usages of the term that differ in several important respects. A sharper approach might focus on legal contracts and exchanges of legal titles, as suggested by Harold Demsetz. That option is explored further in Part II.

**Keywords:** D. C. North; D. W. Allen; J. R. Commons; law; O. E. Williamson; R. H. Coase; transaction costs; transactions; Y. Barzel

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## Introduction

The literature on transactions and their costs is enormous.<sup>1</sup> But several major problems remain unresolved, with ongoing disputes about the meanings of key terms and on the scope for empirical research. Words such as *exchange* and *transaction* have varied and often unclear meanings. Sometimes they are used as synonyms and sometimes not. This two-part essay proposes a framework using legal concepts that brings some clarity and can demonstrably accommodate relevant explanatory factors.

The American institutionalist John R. Commons (1931, p. 652; 1934, pp. 55, 117), treated transactions as a basic ‘unit of economic activity’. This is a minimal functional description rather than a clear definition. He was followed by Ronald H. Coase (1937) who saw the difference between the costs of ‘exchange transactions on the market’ and ‘transactions organised within a firm’ as the key to understanding the nature and existence of the business organisation. The term ‘transaction cost’ (singular or plural, with or without a hyphen) first appeared in an economics, business, finance, or management and organization behaviour journal during the Second World War (Scitovsky, 1940). In the 1940s and 1950s, in the same disciplines, only 20 articles used the term. It appeared in 193 articles in these disciplines in the 1960s.<sup>2</sup>

<sup>1</sup>This article has greatly benefitted from discussions with, and helpful comments from, Douglas Allen, Richard Carter, David Gindis, Eva Micheler, Ramesh Rao, Mehrdad Vahabi, Massimiliano Vatterio and six anonymous referees.

<sup>2</sup>All JSTOR searches were made on 18 December 2023.

Subsequently, usage grew exponentially as ‘transaction costs’ became a central concept in the new institutional economics of Harold Demsetz (1968), Douglass North (1974, 1981, 1989, 1990a, 1990b, 1994; North and Thomas, 1970, 1973), Oliver E. Williamson (1975, 1985b), and others (Klaes, 2000a, 2000b; Vatiero, 2021). Since 1970, over 31,000 articles have appeared in the JSTOR database (in the disciplines noted above) that use the term ‘transaction cost’ (or its plural). But the concept of a transaction cost has long been questioned and contested. Stanley Fischer (1977, p. 322 n.) famously noted:

Transaction costs have a well-deserved bad name as a theoretical device, because solutions to problems involving transaction costs are often sensitive to the assumed form of the costs, and because there is a suspicion that almost anything can be rationalized by invoking suitably specified transaction costs.

In response to these words, Williamson (1979, p. 233) accepted that ‘the concept wants for definition’. Despite the huge literature that has emerged since, adequate definitional clarity and consensus have been absent. Williamson persisted with a vague definition, endorsing Kenneth Arrow’s (1970, p. 48) imprecise description of transaction costs as the ‘costs of running the economic system’. Similarly, North and Robert P. Thomas (1970, p. 5) defined transaction costs as ‘costs of operating an economic system’. Similarly, Steven N. S. Cheung (1998, p. 515) defined transaction costs as ‘just about all the conceivable costs in a society except those associated with the physical processes of production and transportation.’ Cheung preferred the broad term ‘institution cost’ to describe these omnipresent costs. These system-wide definitions make no reference to (microeconomic) transactions. In an early empirical study of transaction costs in the US economy, John J. Wallis and North (1986, p. 96) rightly commented: ‘Constructing a definition of transaction costs is no easy matter’. They were obliged to devote several pages of their empirical study to conceptual and definitional issues. Douglas W. Allen (1991b, p. 2) added: ‘The literature on transaction costs is replete with papers which use the term and provide examples, but which never pause to define the phrase’. These problems of definition and measurement have persisted. For example, in his review of empirical methods in transaction cost economics, Michael Sykuta (2010, p. 157) wrote: ‘Key terms and concepts in the underlying theories are both poorly defined and difficult to measure’. Since then, and despite much effort and concern, we do not yet seem to have emerged from the thickets of confusion.

There are hundreds of empirical studies of transaction costs (Macher and Richman, 2008), but few that try to measure them directly. In one of the rare direct attempts, Wallis and North (1986) estimated the transaction processing sector of the US economy over one hundred years from 1870 to 1970. They concluded that resources devoted to transacting accounted for a large amount of economic activity, growing from 25 percent to 40 percent in a hundred years. But these estimates are sensitive to shifts in the imagined lines that separate ‘transactions’ from ‘production’. Many activities have both transactional and productive elements. Furthermore, Wallis and North regarded the safeguarding of property as a transaction cost. Consequently, some national defence services make up much of their ‘transaction cost’ measure and they account for a large fraction of its growth from 1870 to 1970 (Davis, 1986).<sup>3</sup> This raises one of several problems of direct measurement. Allen (2006) argued that attempts to measure transaction costs directly face massive definitional and other methodological problems.

After dissecting some prominent usages of the term transaction cost, this article takes a step back and proposes a different approach. Some time ago, in an important study of the New York

<sup>3</sup>The conclusions in Wallis and North (1986) contrast with some empirical studies of international ‘trade costs’ over a similar period. For example, Jacks et al. (2008) estimated the costs of ‘transaction and transport’ in a sample of leading trading economies from 1870 to 2000, using a gravity model. They found that these ‘trade costs’ declined from 1870 to 1914, increased precipitously in the interwar period, and declined in the decades after 1950.

Stock Exchange, Demsetz (1968, p. 35) wrote: 'Transaction cost may be defined as the cost of exchanging ownership titles. ... Transaction cost is defined narrowly in this paper ... Broader interpretations lead to extremely difficult empirical and conceptual problems'. But Demsetz did not develop this further.<sup>4</sup> His 1968 definition of a transaction, involving the transfer of legal titles to ownership, has been rarely followed. Yet it is one of the cues for this paper.

The word 'transaction' derives from 'trans' meaning across and an 'action' involving completion or accomplishment. The word was current in English in the fifteenth century, particularly in a legal context, denoting 'adjustment of a dispute by mutual concession' (Barnhart, 1988, pp. 1157–58). Since then, its meaning has broadened.

The etymological origins of *contract* are different. It derives from 'con' meaning 'together' and 'tract' meaning 'pull' (Barnhart, 1988, p. 214). This word also became more common in English in the fifteenth century. It then had a specific legal meaning, but it was eventually applied to a wide set of legally binding agreements (Baker, 2007, pp. 31–27). With important exceptions, such as 'social contract' and 'contract killer', it often connotes legal agreements.

The primary concern in Part I is to compare the usage and meaning of the terms *transaction*, and whether it differs with the use of the word *contract*, among leading authors in this area. In several cases, the term *transaction cost* casts light on the chosen meaning of *transaction*.

Differences over the meaning of a *transaction* are compounded by differences over the meaning of *cost*. For example, there are opportunity costs and sunk costs. The primary focus here is on the term *transaction*. But conceptions of *transaction cost* will also be briefly mentioned.

The following sections provide a partial history of the transaction concept, concentrating on the inspirational works of Commons, Coase, North, Williamson, Allen, and Barzel. Three of these six authors were awarded the Nobel Prize in Economics, largely for their contributions to transaction cost analysis. The comparison below confirms that *transaction* and *transaction cost* are used in very different ways. Some of the differences stem from the fact that authors ask different research questions. Others stem from fundamental conceptual differences, especially over the chosen meanings of *property* and *transaction*. The following comparative review sets the scene for the development of an alternative approach in Part II.

The list of authors considered here must be highly selective. For example, despite their important and original contributions, Ludwig Mises and Armen Alchian are not given more detailed analysis. The term 'transaction cost' was rare before 1970 and does not appear in Mises (1949). But their views on property rights inspired Allen and Barzel, so Mises and Alchian are mentioned in section 6. Our first concern is the prominent adopted meanings of the word *transaction*. Accordingly, authors that discussed contracts but make little use of the word *transaction* are excluded. Hence, the long, highly influential paper by William C. Jensen and William H. Meckling (1976) on agency costs, is not discussed. It mentions *transactions* or *transaction costs* only twice, and both times in passing. As another example, the major work by Elinor Ostrom (1990) on the institutions of collective action mentions Coase, Williamson and transaction cost analysis in a few footnotes, but does not build on it. Omission does not undermine their importance. It simply means that the transaction concept did not play a major and explicit role in their work.

<sup>4</sup>With his narrow definition of transaction costs in the New York Stock Exchange, Demsetz (1968, p. 35) focused mainly on 'brokerage fees and ask-bid spreads' as their measure. While he did not develop this transactional focus on the transfer of legal ownership any further, he remained reluctant to extend the concept of transaction costs beyond market contracts. Hence Demsetz (2008, p. 107) wrote: 'I use transaction costs to mean no more and no less than what Coase [1937] describes as the cost of using the price system. The stipulation is necessary because later writers broadened the meaning of transaction to include the costs of information and of cooperation between parties whether these costs are incurred in exchange across markets or in any other setting'.

### John R. Commons

Commons helped to raise the word *transaction* to prominence among economists. He employed the term *contract* less frequently. As an early American institutionalist, he followed Thorstein Veblen and others in stressing the importance of historically specific institutions, including law, money, and the state. Commons examined the legal foundation transactions, and he saw them as specific to large-scale systems with states under the rule of law. Following Wesley N. Hohfeld (1919), who was an important influence, Commons saw transactions as involving opportunity and power, and the reciprocal creation of rights and duties.<sup>5</sup>

Commons (1924, p. 121 n.) noted that the prominent US legal scholar Dean Rosco Pound had used the word ‘transaction’ differently: ‘His concept of a transaction is that of a “legal transaction,” namely a “contract,” and ours is that of an “economic transaction”’. But Commons did not define the latter term. He might have meant that transactions had both legal and non-legal dimensions. In any case, throughout his work, he reported that many transactions involve potential recourse to courts and adjudication. Transactions were seen as historically specific phenomena, existing in developed legal systems. It seems that his difference with Pound was not that he wanted to drop legal issues, but that Commons wanted to widen the notion of a transaction beyond legal contracts. All the transactions that Commons discussed involved law, but some of them were not contracts in law.

Following Henry Dunning MacLeod (1881), Frank Fetter (1915, pp. 264–5), and others, Commons (1924, p. 245) insisted that business exchanges are not mere transfers of things or commodities. It is the ‘transfer of titles and the liberation of debtors from encumbrances through the tender of lawful means of liquidating their promises’. Here commodity exchange is a contractual interchange of *legal rights*, along with any transfer of goods or money. But his concept of a *transaction* was slightly different and somewhat broader.

Commons (1931, pp. 651–2) contrasted his notion of ‘transactions’ with the concepts of ‘individual behavior or the “exchange” of commodities’ promoted by previous economists, with their ‘materialistic metaphor of an automatic equilibrium’. For Commons, ‘the smallest unit of the institutional economists is a *unit of activity* – a transaction, with its participants’. Via institutional rules, transactions link the activities of various actors, including producers and consumers. They are dynamic phenomena. As Commons (1931, p. 652) continued: ‘Transactions . . . may be reduced to three economic activities, distinguishable as bargaining transactions, managerial transactions and rationing transactions’. Commons (1934, p. 59) saw ‘bargaining’ transactions as between agents, treated as equals. He then added ‘managerial’ and ‘rationing’ transactions to his taxonomy:

In the managerial transaction the superior is an individual or a hierarchy of individuals, giving orders which the inferiors must obey, such as the relations of foreman to worker, or sheriff to citizen, or manager to managed. But in in the rationing transaction the superior is a collective superior . . . such as a board of directors of a corporation, or a court of law, or . . . a taxing authority . . .

Bargaining and managerial transactions require the legal consent of the parties involved, even if there are asymmetric powers or circumstances that some might regard as coercive (Hale, 1952). But many rationing transactions, legitimate or otherwise, do not involve or require legal consent. Nevertheless, Commons’s narrative applies to historically specific institutions, including those of modern legal systems.

When he considered contracts and other transactions in modern economic systems, Commons (1934, p. 7) insisted on the importance of time: ‘In these negotiation and decisions, which are the essence of institutional economics, it is always *future* production and *future* consumption that are at stake, because the negotiation determine the legal control which must proceed physical control’.

<sup>5</sup>For a useful summary of Commons on transactions see Medema (1992, pp. 292–8). See Waldron (2023) on the rule of law.

Consequently, contracts do not involve the immediate transfer of goods or services, but the establishment of legal rights and duties ‘in the present towards an expected economic production or consumption, and the expected sovereign powers’ that may result (Commons, 1934, p. 697). Transactional activity links the present to the future.

Turning to money, Commons recognised that barter was exceptional in modern economies. Most transactions involve promises to pay money and the creation of debt. There is also trade of one kind of money for another. A mortgage involves the transfer of money in return for an obligation of future monetary repayment (possibly with interest). Financial markets involve the trading of debt, and other kinds of monetary instrument. Commons (1924, pp. 235–61; 1934, pp. 390–526) recognised all this. Commons (1924, p. 245) described modern business in these terms:

It is an economy of buyers and sellers, borrowers and lenders, not one of truck or barter. Its essential quality . . . is transfer of titles and the liberation of debtors from encumbrances through the tender of lawful means of liquidating their promisers. It is strictly, in the full sense of the word, a ‘credit’ economy, for it is a transfer of goods and services for a mere promise to pay a price . . .

Hence, Commons tied the issues of price, money, credit, and law together.<sup>6</sup> In contrast, in pursuance of a historical abstraction, some subsequent analyses of transaction costs have ignored money and finance. But while Commons stressed the role of law in modern economies, it would have been better if he had explored more fully the legal meaning and implications of contracts. Nevertheless, he provided several important leads in the right direction. His characterisations of ownership as involving legal title, and of contracts as creating mutual obligations under law, were crucial. But while he developed his notion of a transaction, and he made comparisons between different institutional arrangements, Commons did not develop the concept of a transaction cost.

### Ronald H. Coase

There is no evidence that Coase read Commons. But they had similar views on some theoretical issues (Medema, 1996). For example, an important overlap between Commons (1924) and Coase (1960, 1992) is that they both saw transactions as involving specifications of rights and duties. Transactions are not fundamentally about the physical transfer, and changing control, of things. Rights and duties are at their core.

What did Coase mean by ‘transaction’ and ‘contract’? Coase’s (1937) classic article on the nature of the firm mentions ‘transaction’ (or its plural) 54 times (Vatiero, 2021, p. 3). Most of these mentions concern ‘exchange’ or ‘market’ transactions. Others concern transactions within the firm. Coase (1937) used the words ‘contract’, ‘contracts’, or ‘contracted’ 25 times. It is unclear why he sometimes used the term ‘contract’ and sometimes ‘transaction’. In his 1937 article, he did not use the phrase ‘transaction cost’. He was to adopt it decades later. Instead, outside the firm, he considered ‘contract costs’ (once) and ‘marketing costs’ (eight times). Coase (1937, p. 394) also referred to ‘costs of organising . . . transactions within the firm’. In some passages, Coase (1937, pp. 391, 403–4) discussed employment contracts, as contracts within the firm. In all other cases, he referred to contracts between the firm and outsiders.

Coase’s (1960) classic article on social costs mentions ‘transaction’ (or its plural) 29 times. Almost all cases explicitly address market or exchange transactions. Two of them concern ‘transactions’ within the firm.<sup>7</sup> Clearly, as with Commons, his concept of the transaction spans both exchanges outside the firm

<sup>6</sup>In his *Legal Foundations of Capitalism*, Commons (1924, pp. 91–134) modified Hohfeld’s (1919) conceptual analysis of legal rights and correlatives. This has inspired some recent works (Klammer and Scorsone, 2022; Vatiero, 2021, pp. 33–7).

<sup>7</sup>Allen (2021, p. 247) rejected Vatiero’s (2021) claim that Coase (1960) twice mentioned transactions within the firm. But Vatiero was correct. Coase (1960, pp. 16–17) twice referred to the ‘administrative costs of organising transactions within the firm’.

and management activities within. Coase (1960, p. 15) still did not use the term ‘transaction cost’, but ‘the cost of market transactions’ appears. In an article that is almost three times longer than his 1937 essay, and excluding cases where he was quoting others, Coase (1960) mentioned ‘contract’, ‘contracts’ or ‘contractual’ only 12 times.<sup>8</sup>

In his 1937 and 1960 papers, Coase compared different institutional arrangements, and the costs involved. The 1937 paper compared the costs of transactions on markets with the costs of transactions within firms. The 1960 paper compared a world where the costs of market transactions were zero to one where they were positive, and hence, as he argued, where institutions mattered. For him, transaction cost analysis generally involved the comparison of different institutional arrangements.

Like Commons, Coase used the word ‘transaction’ more often than the word ‘contract’. Both referred to exchange contracts (as in markets) and employment contracts as ‘transactions’. But Coase has no explicit equivalent to the ‘rationing transactions’ posited by Commons. Coase originally confined himself to the two broad applications of the word ‘transaction’ (namely in exchange and employment relations) where, at least in modern economies, legal powers and legally recognised contracts are involved.

But his position shifted. Contrary to the dominant firm-market dichotomy in his 1937 article, Coase (1988, pp. 27–28) declared that he had ‘come across numerous examples of markets found *within* firms’ and cited some alleged cases. Admittedly, there are often internal negotiations and transfers of resources between divisions of modern firms. These divisions may have their own accounts and profit targets. Many firms use price indicators for internal accounting. But are there internal markets within firms? A key test is whether these divisions have separate legal status. Internal transfers within the firm do not necessarily involve legally enforceable contracts. Any objects of transfer remain the legal property of the whole firm. Internal transfers are neither legal contracts nor changes in legal ownership. An agreement made between a firm’s management and one of its divisions is generally not an agreement that would involve legal relations or remedies, because they are not separate entities in law. If a division of the firm is delegated the power to make contracts with outside bodies, then the whole firm is legally the party to the contract. With his enlargement of the term ‘market’, Coase diluted his previous partial commitment to legal criteria (Hodgson, 2002, 2015a, pp. 209–10).

But he still made it clear that state legal systems play an essential role in modern, large-scale economies. As Coase (1988, p. 10) put it, with ‘a vast number of people with very different interests ... the establishment and administration of a private legal system would be very difficult’. Hence trading depends ‘on the legal system of the State’. For Coase (1992, pp. 718–19), we are always in a world of positive transaction costs. In such real-world circumstances:

what becomes immediately clear is the crucial importance of the legal system ... the rights which individuals possess, with their duties and privileges, will be, to a large extent, what the law determines. As a result, the legal system will have a profound effect on the working of the economic system and may in certain respects be said to control it. ... Of course, when ... dealers are scattered in space and have very divergent interests, as in retailing and wholesaling, ... a private law would be difficult to establish, and their activities will be regulated by the laws of the State.

Coase took a position close to that of Commons in some respects, but not in others. Coase (1937, 1960) briefly noted transactions that involved money payments. Otherwise, money played no special role in his analysis.

<sup>8</sup>In addition, Coase (1937) did not use the term ‘property right’ and the word ‘property’ appears once. In Coase (1960) ‘property right’ is also absent, but ‘property’ appears 18 times.



### Douglass C. North

Claude M  nard and Mary Shirley (2014, p. 19) related an incident that helped turn North's attention to institutions as major factors in economic development. During the 1960s, North visited a maritime history museum in the Netherlands. He noticed that the ship models did not display any major technological improvements through time, but they carried fewer and fewer armaments. He argued that instead of technology, the increasing productivity of these merchant ships could be partly attributed to a decline in piracy and privateering, which permitted them to reduce heavy armaments and manpower, and to lower their insurance costs. Consequently, North (1968) overturned the fashionable idea that technology was the supreme driver of economic development and instead pointed to reductions in the costs of armaments and insurance to protect the value of transported property.

Subsequently, he made the concept of transaction cost central to his institutional analysis. North was clearly inspired by Coase, but he used the term in his own way. As noted earlier, North and Thomas (1970, p. 5) vaguely described transaction costs as 'costs of operating an economic system'. North often linked transactions with the protection and transfer of property rights and contracts, but he did not define these clearly (North and Thomas, 1970, p. 783). Sometimes transportation risks were seen as transaction costs (North and Thomas, 1970, p. 787). When North (1974, p. 2) saw transaction costs as 'the costs of specifying and enforcing property rights' he was adopting another broad definition that was again too opaque. But the protection of property rights remained a prevalent theme. Redolent of Coase, North (1981, p. 17) linked property rights to the state: 'it is the state that specifies the property rights structure'. North (1984, p. 256) later wrote:

Transaction costs are the costs of specifying and enforcing the contracts that underlie exchange. They include all the costs involved in capturing the gains from trade. Whether exchange occurs across markets or as part of the production process inside firms, the resources devoted to the organization and integration of the production and marketing of goods and services are a large- and growing-share of the total costs of goods and services.

This is useful, but we need to know more about what constitutes contract enforcement, and 'the costs involved in capturing the gains from trade'. North here differed from Coase (1937), but not Coase (1988), by seeing 'exchange' as 'part of the production process inside firms'.

As noted earlier, Wallis and North (1986, pp. 102–3) adopted a copious definition, where 'protection services' were put in the 'transaction sector', including 'police, guards, sheriffs', along with a fraction of spending on national defence (Davis, 1986). This underlined the protection of property rights, as well as costs of contracts, exchange, or accounting. North (1990a, p. 27) saw 'costs of transacting' as including 'measuring the valuable attributes of what is being exchanged and the costs of protecting rights and policing and enforcing agreements'. This presumably would include agreements that are not enforceable using the legal system. North (1990a, pp. 49, 99; 1990b) also introduced the idea of 'political transaction costs'. This extended the notions of 'transacting' and 'market' beyond legal contracting, to other 'exchanges' of goods or services, including in the political sphere. But the nature of 'exchange' and 'transacting' in this context was insufficiently explored.<sup>9</sup>

Unlike Coase, North did not generally establish transaction costs by comparing different institutional setups and considering the opportunities forgone in each. Transaction costs were often assessed in one institutional context only. North (1994, p. 361) wrote: 'Transaction costs are the costs of specifying what is being exchanged and of enforcing the consequent agreements'. This does not explicitly include the protection of property rights as a transaction cost, but Wallis and North (1986) were cited by North with approval, which might imply his ongoing inclusion of property protections. Significantly, North (1994, p. 361) added: 'property-rights dimensions are defined in legal terms'. But

<sup>9</sup> Vahabi (2011) criticized the extension of the transaction cost concept to non-consensual and coercive relations, including the 'political transaction costs' mooted by North (1990b) and others. North wrote of 'political markets' in seemingly a non-metaphorical sense, suggesting that political competition can literally be a market (Hodgson, 2020).

he did not always cite legal foundations in his analysis of transactions. Overall, North ended up with a broad notion of a transaction that was never adequately defined, and often he went beyond the legal notion of a contract. Money was mentioned, but it played no special role in his theoretical or historical analysis.

North's broad understanding of concepts such as *exchange* and *transaction* created problems for his argument and its application to empirical studies. When we enter realms where there are no explicit, price-forming markets, then how are the items that are supposed to be exchanged or transacted assessed in value by the agents involved? In the absence of prices, transaction costs rely on subjective evaluations. Critics have pointed out that this somewhat diminishes the explanatory power and empirical testability of the approach. For example, North and Thomas (1973: 20–21, 31–32, North 1981: 33–44, 129) claimed that high transaction costs help to explain the absence of markets in some medieval contexts. But without markets and competition there are few meaningful prices. Consequently, the argument turns into an unverifiable claim about subjective costs. Even if high transaction costs explain the absence of markets, they do not readily explain what substituted for them. Critics also complain of 'the ahistorical and universalistic nature of transaction costs theory' (Milonakis and Fine, 2007, p. 52).<sup>10</sup>

North's writings are pioneering and often inspirational. He was largely responsible for introducing transaction cost analysis to the study of economic history. But several nagging difficulties and ambiguities in his transaction cost analysis remain.

### Oliver E. Williamson

Williamson (1971) developed a transaction cost analysis of the firm, citing both Coase and Arrow as inspirations. In particular, he adopted and developed Coase's method of comparing different institutional arrangements and assessing their different transaction costs. Williamson (1975, pp. 3, 254; 1985b, pp. 3–5; 2010, pp. 673–4) also acknowledged the influence of Commons's analysis of transactions. Steven Medema (1992, p. 305) noted that Commons's distinction between bargaining and rationing transactions has its parallel in Williamson's comparison between markets and hierarchies. But, as Medema explored at some depth, Williamson's analysis is in several other respects quite different from Commons's. For example, focusing on relative efficiency, Williamson tried to specify the optimal governance structure. By contrast, Commons introduced factors such as 'fairness' alongside efficiency. While Commons focused on ongoing institutional processes, Williamson sought optimal equilibria.

For Williamson (1981, p. 552; 1985a, p. 179; see also 1996, p. 379), a 'transaction occurs when a good or service is transferred across a technologically separable interface. One stage of activity terminates and another begins'. There is no mention here of owners or ownership. And there is no allusion to any exchange of rights or obligations, legal or otherwise. Williamson (1985a, p. 193) added: 'In common with the property rights literature, transaction cost economics agrees that ownership matters'. But there is no elaboration on what ownership means, or how it impinges on transactions. Williamson (1985a) devoted a whole article to 'assessing contract' but there he did not define a contract or explain any difference it might have with a transaction. This is a major difference between Williamson, on the one hand, and Commons, Coase, and North, on the other. As Yngve Ramstad (1996, p. 415) pointed out, while Williamson saw transactions as 'the transference of assets . . . In contrast, Commons conceives the transaction to be a . . . transfer or legal control . . . to involve the transference of property rights'.

Williamson (1996, p. 377) defined a contract as an 'agreement between a buyer and a supplier in which the terms of exchange are defined by a triple: price, *asset specificity*, and *safeguards*'. This might suggest that a contract is a special case of a transaction. The mention of 'price' might connote money, but this is not made explicit. In any case, Williamson's definition of a contract is different from a

<sup>10</sup>See also Fenoaltea (1975), Hodgson (1988: 206–8), and Ankarloo (2002).



contract in law, which necessarily involves legal relations and the shared intention of creating legally binding obligations (Law, 2022, pp. 156–7, 166–7; Merriam-Webster, 2016, p. 101).<sup>11</sup>

Williamson (1996, p. 379) defined transaction costs as the ‘ex ante costs of drafting, negotiating and safeguarding an agreement and . . . the ex post costs of maladaptation’. I have found no passage in his work where Williamson indicated whether the cost of protecting ‘property rights’ is, or is not, a transaction cost. But to his credit, Williamson (1988) sometimes considered transactions with money payments and discussed corporate finance.

The title of Williamson’s (1975) *Markets and Hierarchies* suggests a separation between markets and firms, reminiscent of Coase’s (1937) seminal article. But subsequently Williamson (like Coase, 1988) rejected that dichotomy. Instead, firms and markets became the ends of a continuum. As Williamson (2007, p. 376) related:

What defines a firm at the end of the continuum? I take the defining characteristics of governance structures to be incentive intensity, administrative control, and the contract law regime. Firms combine relatively low powered incentives with a lot of control instruments and use hierarchy rather than courts to settle disputes. Markets are polar opposites, and hybrids are located in between.

This implies a range of firm-market hybrids, where the two elements could be mixed in various ways.

In another important respect, Williamson (1983) developed transaction cost analysis in a manner that diverged to a degree from Commons, Coase, and North. He emphasised self-enforcing agreements and private ordering. Rightly observing that most business disputes do not actually go to the courts, Williamson (1984, p. 195) dismissed what he called ‘the legal centralism tradition, under which court adjudication is presumed to be efficacious’ declaring that it is ‘supplanted by the study of private ordering’. Williamson (1985a, p. 184) wrote: ‘Since the efficacy of court ordering is problematic, contract execution falls heavily on the institutions of private ordering . . . This is the world with which transaction cost economics is concerned’. This suggests that transaction cost analysis should avoid reference to courts and other institutions. But in practice, rather than dismissing the importance of legal institutions for transaction cost analysis, Williamson simply alleged that private ordering was more important than the power of the courts. Other researchers on transaction costs, including those that build on Williamson’s work, have often considered the legal aspects of transactions as well as private ordering (e.g. Brousseau, 2008; Hadfield, 2005; Rubin, 2005; Schepker et al., 2014).<sup>12</sup>

Recourse to the courts to enforce contracts is typically expensive and time consuming, and private agreements are generally less costly. This provides a strong incentive to reach a private agreement. But if there is no use of the courts, then it does not mean that the courts are playing no role. The very threat of court action can induce the parties to reach an agreement. Infrequent use of the courts may still mean that they are doing a powerful and effective job, providing inducements to settle privately. In countries under the rule of law, private ordering and court action are often neither substitutes nor rivals, but complements.

Is private ordering sufficient? There are several accounts of the use of private ordering, where legal institutions were weak or absent (e.g. Friedman, 1979; Clay, 1997; Leeson, 2009; McMillan and Woodruff, 2000).<sup>13</sup> These historical examples involved systems that were small scale and less developed than the most advanced economies today. There is no doubt that private ordering is enduringly useful and important. But there is no persuasive evidence that private ordering can be *sufficient* throughout

<sup>11</sup>The nature of a contract will be explored further in Part II of this essay.

<sup>12</sup>Williamson (1985b, p. 130; 2010, p. 681) claimed that his transaction cost analysis has been empirically corroborated in the context of the firm. This was questioned by David and Han (2004), Carter and Hodgson (2006) and Geyskens et al. (2006). Macher and Richman (2008) gave a more affirmative assessment.

<sup>13</sup>Kadens (2012, 2015) challenged the historical accuracy of the prominent historical accounts of the private ‘law merchants’. Furthermore, institutions of private ordering often complemented state legal institutions rather than being substitutes for them (Ogilvie and Carus, 2014).

modern, large-scale, developed economies. Private ordering is essential to complement a functioning legal system. But that does not mean that it is always adequate on its own. Much evidence points to the importance of the rule of law, the strength of legal institutions and their legal capacity (Besley and Persson, 2011; Dam, 2006; Haggard et al., 2008; Koyama and Rubin, 2022, pp. 39 ff.; North, 1994, p. 367). This suggests that we should not remove legal institutions from our analysis of transactions.<sup>14</sup>

### Douglas W. Allen and Yoram Barzel

Allen and Barzel developed a distinctive ‘property rights’ approach to transaction costs, linking it with ‘the economics of property rights’. Allen and Barzel defined transaction costs as the costs of establishing and maintaining ‘economic property rights’, which were seen as different from legal rights. For them, ‘economic property rights’ are about abilities to choose and control (Allen 1991a; Barzel 1997; Barzel and Allen, 2023). Hence, a brief discussion of their notion of property rights is required at this point, before we return to our main theme of transactions.

Previously, prominent exponents of the emerging ‘economics of property rights’ had seen the state and its legal system as central. For example, in a major survey of this literature, Eirik G. Furubotn and Svetozar Pejovich (1972, p. 1140) ‘stressed that most of the restrictions discussed here are those imposed by the state. To argue for a change in the content of the right of ownership, therefore, is to argue for a change in the allocation of resources to which legal support is given’.<sup>15</sup>

By contrast, following Mises ([1932] 1981, p. 27) and Alchian (1965, 1977b), Allen (1991a, 1991b), Barzel (1997, 2002), and Barzel and Allen (2023) saw property rights as fundamentally about de facto possession or control, making legal rights or titles secondary or incidental. Alchian (1977b, p. 238) defined the ‘property rights’ of a person in universal and institution-free terms including ‘the probability that his decision about demarcated uses of the resource will determine the use’.

Barzel and Allen (2023, p. 35) also saw property rights as a universal feature of humankind, insisting that ‘there can never be a pre-property right state of existence’ but ‘a pre-legal property right society can exist’. Following Lionel Robbins (1932) and many others, Allen and Barzel understood economics as largely a set of universal principles, applicable to all human history. But this view of economics was shared by neither Commons nor Coase, and it is not prominent in the work of North (Medema, 1994; Hodgson, 2001).

The evidence suggests that large-scale societies with institutionalised legal systems have been around for no more than a few thousand years.<sup>16</sup> But the Allen and Barzel concept of ‘economic property rights’ is alleged to apply to all human existence.

Allen and Barzel fully accepted that legal property rights could help to protect and sustain economic property rights. Hence ‘economic property rights’ might depend in part on legal powers. But they still upheld that (economic) property rights could in principle exist without law or a legal system. On the contrary, according to some (but not all) leading legal theorists, law constitutes property. As Antony Honoré (1961, p. 107) put it in his classic article on ownership: ‘A people . . . who meant by *meum* and *tuum* no more than ‘what I (or you) presently hold’ would live in a world that is not our world’. According to this prominent view, without law there cannot be ownership.

A problem with the Allen-Barzel approach is that it regards stolen goods as the ‘property’ of the thief. This radical departure from legal meanings of ‘property’ has been criticised, for several reasons (Cole and Grossman, 2002; Steiger, 2006; Hodgson 2015a, 2015b, 2015c). It might be suggested that this is simply a terminological issue. But it is not. The ‘economic property rights’ of Mises, Alchian, Allen, and Barzel are not about property or rights, at least in the way that some leading legal theorists have used these terms (Honoré, 1961; Cole and Grossman, 2002). While contract law allows individuals, within limits, to shape legally enforceable promises, legal property rights have a confined

<sup>14</sup>See Langlois (2006) for an interesting subclassifications of transaction costs that is largely influenced by Williamson.

<sup>15</sup>North (1974) cited Furubotn and Svetozar Pejovich (1972) with approval.

<sup>16</sup>On early legal systems see Roth (1997) and Glen (2014).

set of features, and no additional form may be created unless explicitly provided by the legislative authority (Hansmann and Kraakman, 2002). Contrary to Humpty Dumpty in *Alice Through the Looking Glass* (Carroll, 1970; Hodgson, 2015c), generally we cannot at will change the meanings of words. Words are social constructs. We cannot arbitrarily redefine the concept of ‘property’ or ‘right’ without taking current social usage of the term into account.

In the approach of Allen and Barzel, the primary focus is on the supposed underlying ‘economic’ reality that is separate from the legal superstructure. This is redolent of Karl Marx, who also defined property solely in terms of effective control: he too saw legal relations as secondary ([1844] 1975, p. 351). In contrast, it can be argued that law plays a constitutive role in modern capitalism; it is not epiphenomenal (Gordon, 1984; Deakin et al., 2017; Hodgson, 2003, 2015a, 2015b, 2023).

If property and property rights are basically about control, then there is little difference between owning something and renting (or hiring) something. There is inadequate differentiation between a slave and a wage worker: both are under the control of their managers. Legal categories are necessary to understand these distinctions. In ordinary usage, a rent is a payment to someone for the *use* of *their* property.<sup>17</sup> Renting a field, a building, or a machine means the acquisition of legal use (*usus*) rights over those items, without purchase of the legal rights to sell (or *alienate*) them to others. We more often refer to the *hiring* of a machine or a worker and similar considerations apply. A crucial difference between a slave and a waged worker is that the slave is owned and can be sold, whereas the waged worker is self-owned and hired to an employer. These legal concepts are indispensable. Ownership is not simply about control.

Returning to transactions, Allen (1991a, p. 741) defined ‘transaction costs as the costs of establishing and maintaining property rights. They include the costs of protecting and capturing property rights, plus any concomitant deadweight costs from protection or capture’. Note that in strict terms this definition does not require transfers between agents. It involves the ‘capture’ of ‘property’, which could mean the acquisition of previously unpossessed resources. But Allen (1991b, p. 6) ruled out the latter: ‘costs which may take place without an exchange occurring . . . are information costs, not transaction costs’. Similarly, Allen (2000, p. 906) wrote: ‘Crusoe faced many information problems, but until Friday showed up, he had no transaction cost problems’. Notably, the exclusion of information costs from transaction costs contrasts with other accounts where they are included (Dahlman, 1979; Medema, 2020).

Given Allen’s argument about needing two to transact, it would seem that Allen’s (1991a, 1991b, 2000, 2015) definition requires some adjustment, to make it clear that transaction costs always involve multiple agents and exchanges of their property. On the other hand, the more recent definition of transaction costs by Barzel and Allen (2023, p. 40) as the ‘costs of establishing and maintaining a distribution of economic property rights’ need not necessarily involve any exchange.

Barzel (1997, p. 4) wrote: ‘I define transaction costs as the costs associated with the transfer, capture, and protection of rights’. As noted above, a similar position on the protection of property was taken by Wallis and North (1986, pp. 102–3). Generally, Barzel and Allen did not follow the approaches of Coase and Williamson, who always compared different institutional setups for their transaction costs. For Barzel and Allen (2023, ch. 3), ‘transaction costs’ are essentially about the maintenance of possession or control, against threats from others. As with North (1990b), this allows an extension of the meaning of a transaction to the political sphere and elsewhere. Transactions are not confined to contracts.

Allen (2000) made a distinction between the ‘property rights’ definition of transaction costs as ‘the costs of establishing and maintaining property rights’ and the ‘neoclassical’ definition as ‘the costs resulting from the transfer of property rights’.<sup>19</sup> He described his ‘property rights’ definition of transaction costs as ‘broader’ because, unlike the ‘neoclassical’ definition, it adds ‘enforcement-type

<sup>17</sup>This broad, everyday meaning of *rent* is different from the notion of an *economic rent*, i.e. a payment to an owner of a factor of production that exceeds the owner’s opportunity cost, which is the amount needed to make that factor productive.

<sup>19</sup>Their use of the term ‘neoclassical’ contrasts with its prevalent twentieth century meanings, where it has typically entailed utility maximisation and equilibrium analysis (Hodgson, 2025).

**Table 1.** Conceptual differences between Commons, Coase, North, Williamson, Allen and Barzel

	John R. Commons (1862–1945)	Ronald H. Coase (1910–2013)	Douglass C. North (1920–2015)	Oliver E. Williamson (1932–2020)	Douglas W. Allen (1960–) and Yoram Barzel (1931–2022)
1. Implied relationship between ‘transactions’ and ‘contracts’.	All contracts are regarded as transactions, but not all transactions are contracts.	‘Contract’ and ‘transaction’ used as synonyms, with greater usage of the latter, mostly related to markets.	Usage of ‘transaction’ seems broader than of ‘contract’, but meanings are unclear.	‘Contract’ is a special case of ‘transaction’ with a ‘price, <i>asset specificity</i> , and <i>safeguards</i> ’.	‘Contract’ and ‘transaction’ are used as synonyms, with greater usage of the latter.
2. Do transactions involve transfers of legal rights?	Yes – transfers of legal rights.	Yes – transfers of legal rights.	Yes – transfers of legal rights.	Not highlighted in his analysis.	Not necessarily. De facto control is seen as a right.
3. Is the protection of property rights regarded as a transaction cost?	Not explicitly. Unclear.	Not explicitly. Unclear.	Yes. Some defence spending is seen as a ‘transaction cost’.	Not explicitly. Unclear.	Yes. Protection of ‘property’ is seen as a ‘transaction cost’.
4. Is taxation by an authority seen as a transaction?	Yes. Taxes are described as ‘rationing transactions’.	Not explicitly. Unclear.	Not explicitly. Unclear.	Not explicitly. Unclear.	Not explicitly. Unclear.
5. Does the term ‘transaction’ cover transfers that are not agreed, or not contracted in law?	Yes. ‘Rationing transactions’ are often uncontracted in law, and possibly without agreement.	Yes. Transactions between divisions within firms, admit exchanges not between legal persons.	Yes. Transactions are not always between legal persons.	Yes. Transactions between divisions within firms, admit exchanges not between legal persons.	Yes. Property transfers (e.g. thefts or gifts, not agreed or legally contracted) seen as transactions.
6. Is advertising a transaction cost?	Unclear on this point.	Unclear on this point.	Yes.	Unclear on this point.	No. Clearly excluded.
7. Analysis of money and debt in many modern transactions.	Emphasised and discussed at length.	These issues play no major role in his analysis.	These issues play no major role in his analysis.	There is some discussion of corporate finance.	These issues play no major role in their analyses.
8. Are transactions possible in societies where there is no system of state law?	Discussion of transactions is generally confined to systems with state law.	His discussions of transactions did not mention systems without state law.	Unclear on this point.	Seemingly yes. Transactions often analysed without reference to state law.	Yes. Their analysis purportedly applies to all kinds of society.
9. What is the role of state law in enforcing transactions economies?	The role of state law was emphasised and regarded as central.	The role of state law was sometimes emphasised.	The role of state law was sometimes mentioned.	The role of state law was downplayed, to stress private ordering.	Focus on control of property. State law may enhance that control.

costs within firms' as transaction costs. Furthermore, his approach does not take the distribution of 'property rights' as constant.<sup>20</sup>

If 'economic property rights' refer to control, and if these 'property rights are complete' or 'perfect' (Barzel and Allen, 2023, pp. 25, 28), then agents, by their definitions, have full control, and hence 'transaction costs are zero' (Allen, 1991a, p. 741). Full control implies no cost in protecting or contracting 'property'. And hence when transaction costs are zero, 'it costs nothing to define and enforce ownership'. Hence, the two ideas of property rights and transaction costs 'are just different sides of the same coin'. Allen's definitions enable this striking connection.<sup>21</sup>

But this result is less striking if once we realise that, for Allen and Barzel, 'property rights' and 'transactions' are defined in terms that do not necessarily involve legal rights. For them, 'property rights' are 'perfect' when there is certainty of maintaining control of an asset. In which case, by their definition, there are no transactions costs. With zero costs of maintaining control, it is obvious that control is then fully assured.

As with Coase and North, money plays no major role in their analysis. Barzel and Allen (2023, p. 248) devoted a few pages to 'money' and wrote: 'Every society that has existed has used "money". Money is an intermediate medium to an exchange, so when one good is ultimately exchanged for another, there are extra exchanges in the middle where goods are traded for "money"'. This is a one-exchange (commodity – commodity) conflation of a process that involves at least two separate legal contracts (commodity – money – commodity). Their claim that 'money' (put by them in quotes) has existed in all human societies is unexplained. Alchian (1977a) and Barzel and Allen (2023, pp. 247–50) noted the role of money in reducing transaction costs and providing a unit of account. But they all neglected credit, borrowing, and mortgages, which are arguably central to capitalist economies (De Soto, 2000; Hodgson, 2015a, 2023). There were no coins, no universal monetary tokens, no promissory notes, and no records of credit before about 4000 BC. Then what kind of 'money' existed before then? Once again, the desire to make the analysis universal erodes the meanings of crucial words.

It is also mistaken to suggest that money is always an 'intermediate' medium of exchange. Money payments are not simply 'exchanges in the middle'. A modern legal contract is an agreement to create obligations. Very often, one party has a contracted obligation to pay money to another party. Contracts create debts, which are ended by the fulfilment of the contract. Contracted money payments are typically at the end of the process. The process re-starts with new contracts.

### Conclusion: comparing six prominent authors on transactions

Table 1 shows some important similarities and differences between the six authors. The contrasts are remarkable. For example, row three highlights the distinctiveness of the positions of North, Allen and Barzel, who regard the protection of 'property rights' as a 'transaction cost' (by their definitions). In rows four and five, Commons is shown to include 'rationing transactions', which typically are not contractual in a legal sense. The Allen and Barzel concept of a transaction seems to include any transfer of resources, voluntary or otherwise. Row five compares the different ways that the authors admitted the idea of non-legal transactions. Row six reports that while Wallis and North (1986) saw advertising as a transaction cost, Barzel and Allen (2023) did not. Row seven highlights Commons as the only author in the sample to emphasise the transactional importance of money payments and monetary debt, seeing them as central to most modern transactions. There are also important differences in row eight, on the application or otherwise of the concept of a transaction to societies without state law, and in row nine, on the role of the state in enforcing transactions. Some of the differences in the usage of

<sup>20</sup>Among others, Alston et al. (2018, pp. 60–2) adopted Allen's definition of a transaction cost. Because of their focus on maintaining 'property rights', Barzel and Allen (2023, pp. 51 ff.) did not regard costs of advertising a good or service as transaction costs. By contrast, Wallis and North (1986, pp. 98–100, 128) saw them as such.

<sup>21</sup>Allen and Lueck (2018) claimed that Cheung (1969) was the first theorist to bring transaction cost and property rights economics together in this way.

these key terms stem from the fact that different questions are being asked. Another source of discord is that terms such as *transaction* and *property* are being used in different ways.

Two prominent ways forward emerge from these comparisons. The first is to take a more general and ahistorical approach, of which the works of Allen and Barzel are the most rigorous exemplars. But what their approach achieves in terms of much wider generality it loses in terms of its appreciation of salient and powerful modern institutions. Their notion of a transaction goes beyond voluntary agreements, to include coercive, kleptocratic, and other predatory relations. Money plays little role in their analysis, and no more than as a medium of exchange. ‘Economic property rights’ are basically understood in terms of possession or control. Law is recognised, but it takes a secondary, incidental, and instrumental role.

A second more historically sensitive approach would use some general principles, but it would not be intended to apply to societies without institutionalised legal systems or the rule of law. It would limit the scope of the analysis at most to a few thousand years of human history, but it would greatly improve the power of that analysis to understand modern economies. It would build on the work of Commons, on some aspects of Coase’s contribution, and on the ideas of several others. Following Demsetz (1968), the transfer of legal title would be central. It would make law vital and constitutive, understand property rights in legal terms, and emphasise the role of money. It would highlight the terms contract and contracting costs. Its name is legal institutionalism. Part II of this essay outlines some features and implications of this approach.

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