oxera
compelling economics

Agenda—10 years

Advancing economics in business

Buyer power in a regulatory context: myth or reality?

Originally published in November 2012. 2015 commentary by Oxera

This article summarises Oxera's seminal work, originally carried out for the Netherlands Competition Authority (now the Authority for Consumers and Markets), discussing the role played by those buying from regulated infrastructure providers in the outcomes experienced by consumers. Its key message is that regulation needs to be designed carefully, so that it fully reflects the market dynamics in the value chain. Otherwise, regulation can be either poorly focused (and therefore excessively burdensome) or, at the other extreme, unable to provide much in the way of benefits to today or tomorrow's consumers.

A report by Oxera for the Netherlands Competition Authority (NMa) illustrates that buyer power is an often misunderstood area in both theory and practice. Regulators wishing to adopt a more 'light-touch' approach to network regulation should take note

It is commonly taken to be the case that, when a large firm sells down the supply chain to other large firms, which can demand favourable terms, end-consumers are protected. By fighting their own corner, the firms in the middle also fight ours. Consumers get low prices, and the firms get high quality. But do they?

As is often the case in economics, the theory and practice are a bit more complicated than this. A regulatory issue that triggered Oxera's report was the need for a practical framework that the NMa could use to assess whether buyer power was present in the rail and airport sectors (which it regulates). In these sectors, an upstream provider supplies services to downstream intermediate users, who then provide services to consumers.

In the case of the Dutch airport sector, Amsterdam Airport Schiphol, a majority government-owned airport, provides runway capacity and terminal facilities to a number of airlines downstream, including the flag carrier airline, KLM. In the case of Dutch rail, ProRail (and its subsidiary, Keyrail) are government-owned rail infrastructure companies, providing track access to downstream railway undertakings (including NS Rail, DB Schenker NL, and some smaller passenger and freight operators).

In contrast to the UK RPI - X style of regulation, in which sector regulators have the ultimate power to set prices, the rail and aviation sectors in the Netherlands are regulated under a more 'light-touch' consult/negotiate regime—similar in some ways (but not in others) to the light-touch regimes found in the Australian and New Zealand airport sectors. The legislation put into place over the past few years specifies a number of ways in which upstream infrastructure providers (such as rail infrastructure managers and airports) must consult with their downstream intermediate users (such as railway undertakings and airlines), and proposes timings for the various steps. In rail, there is also a legal requirement for negotiation of access terms, and parties are required to reach agreement on these each year.

In fact, as our more recent *Agenda* article, '2014: a regulation odyssey', explains, increasing customer involvement has become a key feature of regulatory determinations.[1] Oxera's work for Gatwick Airport also demonstrates that airport regulatory arrangements around the world tend to emphasise how airport customers (or at least their intermediate users—i.e. the airlines) agree a number of the regulatory building blocks with the infrastructure provider, instead of the regulator ruling on each issue.[2]

[1] Oxera (2014), '2014: a regulation odyssey', *Agenda*, November, available at: http://www.oxera.com/Latest-Thinking/Agenda/2014/2014-a-regulation-odyssey.aspx.
[2] Oxera (2013), 'Regulatory regimes at airports: an international comparison', prepared for Gatwick Airport, 23 January, available at: http://www.oxera.com/Latest-Thinking/Publications/Reports/2013/Regulatory-regimes-at-airports-an-international-c.aspx.

There is a presumption in this legislation that this consult/negotiate regime (which does not include consumers or other stakeholder groups) would create and/or enhance the buyer power of the downstream intermediate users, which then limits the incentive for upstream providers to exploit their market power. The advantage of the light-touch regime is that, at least in theory, it requires limited resources from the NMa, with the sector stakeholders implementing the regime instead. Oxera's report developed a framework for assessing the degree to which buyer power is present, and the effects of this buyer power on end-consumers, which the NMa then applied and consulted on.

Following an intensive period of consultation, and in applying the above framework, the NMa itself concluded that 'airlines have no buyer power vis-à-vis Amsterdam airport Schiphol, and that rail transport undertakings have none either vis-à-vis infrastructure managers ProRail and Keyrail'. In particular, the NMa noted that 'Schiphol, ProRail and Keyrail are statutorily required to consult their users when adjusting their tariffs. In practice, objections raised by users often (or even always) fall on deaf ears.'[1]

The rest of this article is based on Oxera's report for the NMa on buyer power assessment; the NMa's subsequent report is also available.[2]

What influences the outcomes of bargaining?

Buyer power can be examined within two frameworks.

- **Monopsony theory** assumes that there is a powerful buyer in a downstream market that can withhold demand for an input, pushing down the price it faces, and making its inputs cheaper than if it were competing with other buyers at this level in the value chain.
- **Bargaining theory** assumes that a downstream company can achieve lower input prices through the *threat* of purchasing less. Bargaining power is also known as countervailing buyer power, and was regarded by Oxera as being the more relevant framework for the study.

Current practice in competition law permits a defence against a finding of market power (in the case of the market position of a particular company), or a detrimental reduction in competition (in the case of a merger between two or more parties), if it can be shown that the customers of an entity have sufficient bargaining strength. The literature in this area, and, more generally, the theoretical and practical literature on buyer power, indicates that the main factors determining the outcome of negotiations between an upstream seller and a downstream buyer, and, ultimately, the degree of buyer power, are:

- the outside options of the buyer;
- the outside options of the seller;
- bargaining effectiveness.

In essence, the outside options are what the parties would do if that they cannot reach agreement (for example, over prices).

Buyers have more bargaining power if they have more outside options

The main determinants of the buyers' outside options are their size, their ability to quickly substitute suppliers, and the nature of consumers' substitutability patterns; for example, if the product sold by the supplier is a 'must have' for the consumer, ceasing to stock it is not a credible strategy for the buyer, thereby undermining buyer power.

Being 'big' can help buyer power, and individual companies might form buyer groups or trade associations in order to increase bargaining strength. However, being big is not sufficient to generate buyer power that is sufficiently strong to be considered effective countervailing buyer power. Rather, for this to be the case, the buyer must be able to credibly switch a significant proportion of its purchasing away from the supplier over a reasonably short timescale, and be prepared to do so.

Buyer power is also higher if sellers have few outside options

The main determinants of sellers' outside options are the presence of alternative buyers to contract with; how specific the investment by the seller is to particular buyers; the structure of the seller's costs; the presence or absence of buyer groups; and the short-run, cash-flow dependency of the seller on its current buyers.

If there is limited new entry downstream, the supplier has little option but to deal with existing buyers. Where there is more entry, the seller's outside options are increased, undermining the buyer power of existing transportation providers. If there are significant economies of scale upstream (for example, where the upstream sector is particularly capital-intensive and/or has high fixed operating costs), losing a particularly large buyer would raise the seller's unit costs, which again reduces the seller's outside options. If the upstream supplier has invested in dedicated facilities to serve the existing downstream buyer(s), such as rail infrastructure, this also reduces the likelihood of the supplier trading with other buyers, thereby reducing the seller's outside options.

Bargaining effectiveness is important in influencing the outside options of the buyers and seller(s)

Factors determining bargaining effectiveness include the ability of the buyer to withhold payments from the seller, the transaction costs of bargaining, and the extent to which the sums paid to the upstream buyer are large in relation to the seller's total costs. For example, if the transaction costs of a rail transportation operator to engage in a consult/negotiate process are low, and the costs of track access in terms of

rail operators' total costs are high, this makes it easier for rail operators to come to the bargaining table. The degree to which parties can credibly commit to strategies aimed at boosting their bargaining power (by 'tying their hands'), the degree to which each party knows the outside options of the other trading parties, and the ability to keep concessions secret, also determine bargaining effectiveness.

In regulated sectors, regulators might seek to influence the bargaining effectiveness of buyers and sellers by requiring sellers to disclose information to buyers. They might also seek to influence the order and timing of the consult/negotiate process, in order to reduce transaction costs and provide sufficient time for engagement in negotiations. If agreement cannot be reached, the regulator may influence bargaining by specifying regulatory sanctions, in effect influencing the outside options of the buyer and seller. However, the degree to which these measures are possible will depend on the legal and regulatory framework in place.

This is a key point—in some sectors (such as rail), outside options are severely limited if an operator wants to continue to provide services in a particular country; however, even in these sectors (and more so in other sectors where outside options do indeed exist), enabling the consult/negotiate process to promote bargaining effectiveness is a core regulatory function (although it does not mean that the regulator has to run the process). As the article explains, the credible threat of more intrusive regulation in the event that the parties cannot agree is key to getting the process to work.

Regulatory experience of buyer power

International regulatory precedent suggests that finding a sustainable level of buyer power can be difficult.[3]

The current regulation of the GB rail sector limits franchised passenger operators' buyer power through the design of their franchise agreements. To reconcile the five-year access charge reviews of infrastructure manager, Network Rail, with franchise terms that do not match this periodicity, train operating companies are held financially neutral to changes in access charges arising from access charge reviews, making them indifferent to the outcome of the seller's price-setting activity. While the structure of the sector looks conducive to creating some degree of (countervailing) buyer power, the current contractual arrangements virtually eliminate such power.

The experience of regulation of the New Zealand airports sector by the Commerce Commission New Zealand is also revealing. In contrast to the UK system, in New Zealand there is no explicit ex ante regulation of airport prices. The regime relies on the presence of buyer power to discipline the airlines, coupled with the threat of regulatory action if problems arise. However, the structure of the sector means that, in the short to medium term, airlines at the main hub airport would face difficulties in relocating significant amounts of capacity to an alternative airport. This limits airlines' outside options, and hence their buyer power.

One example where the inherent structure of the sector appears to have created preconditions for a higher degree of buyer power is the negotiated settlement regime in the USA, where the Federal Energy Regulatory Commission (FERC) regulates access to gas pipelines. Here, a number of downstream intermediate users have an interest in the outcome of the process. The regulator is actively involved in the negotiation process, setting the rules of the game, acting as referee, and supervising the negotiation activity undertaken by the parties.[4]

Buyer power: a means to an end

Creating or enhancing buyer power should be seen as a means to an end, not an end in itself. In this respect, there are some important points to note about buyer power in terms of its effects further downstream; whether consumers' wishes are aligned with those of buyers; and the importance of buyer power in the regulatory framework.

Buyer power tends to be pro-competitive

Competition authorities tend to consider buyer power in a bargaining setting (particularly, effective countervailing buyer power) to be desirable, provided that there is sufficient competition in the downstream market. However, the extent to which the benefits of effective countervailing buyer power are passed on to consumers in the form of lower prices depends on the nature of the downstream competition faced by the buyers. If the buyers have market power in each of the downstream markets that they serve, they may simply keep the additional profits gained from their advantageous bargaining position. Thus buyer power does not always mean that consumers benefit.

If the upstream firm is allowed to 'price-discriminate', reductions in prices to larger buyers downstream may be at the expense of higher prices to smaller buyers

This 'waterbed effect' could harm competition downstream, where rival buyers purchasing from the seller compete in some way, since it raises some retailers' costs. This could cause them to raise their prices or, in the longer term, exit the market. For example, a large wholesaler may offer substantial discounts to a large retailer that has buyer power, while raising the prices charged to smaller independent retailers in the downstream market, which could result in the smaller retailers being unable to compete and exiting the market. However, the waterbed effect relies on the downstream buyers competing in some way downstream, and the effect is controversial—there may instead be uneven bargaining, whereby improvements in the terms offered to some buyers do not adversely affect the other buyers.

The interests of intermediate users and consumers may not be aligned

There can be a disjoint between the objectives of current downstream buyers and of both current and future consumers, and there could be time-inconsistency issues, in that short-term decisions do not correspond to long-term optimal outcomes. For example, a downstream buyer such as an airline or a railway undertaking might not negotiate for the upstream firm to increase its current capacity if this means that more competitors such as other airlines/railway undertakings are able to access the capacity (increasing the intensity of downstream competition going forward). A more benign version of this market failure arises when the long-term interests of the supplier (and, conceivably, those of the government and other stakeholders) conflict with the short-term cash needs of its buyers. A regulator might, however, seek to address such issues as part of the consult/negotiate regime, and through regulation more generally, in order to align the interests of intermediate and consumers more effectively.

While the article focuses on how principles from competition economics can help to determine the appropriate extent and type of economic regulation to apply to the infrastructure provider, in doing so it articulates a number of 'knotty problems' facing such regulation.

In particular, it presents a situation in which those buying from the infrastructure provider (intermediate users, such as rail operators or airlines) themselves have market power downstream in providing services to end-consumers. In this situation, market incentives for building capacity ahead of demand are typically extremely limited, for the following reasons.

- Economics in normal markets tells us that, as a capacity constraint nears, prices will rise. This fulfils two functions—it signals to consumers that their use of capacity is crowding out others; and it enables the provider to earn profits above the cost of capital that can be used to pre-fund capacity enhancements.

- If this situation arises where there is a regulated infrastructure provider, however, and its customers (intermediate users) have buyer power, it is unlikely that the capacity will be built. The first reason for this is that the price of using the facility will not rise above the competitive level—the supernormal profits used to pre-fund the capacity will not be available to the regulated entity, as it will receive only revenues consistent with its cost of capital. Instead, the profitability above the competitive level will move down the value chain to the regulated company's customers, who have market power and are able to benefit from the economic rents being generated by the capacity constraint upstream. The second reason for the capacity not being built is therefore that the customers are typically asked for their input on capital schemes being planned by the regulated entity. In this set-up, the intermediate users (e.g. airlines) do not want the capacity to be provided since it will allow new entrants into the market, reducing the incumbent users' profitability (which is being enhanced by the lack of capacity), and—to make matters worse—they are having to pay for it themselves!

This suggests that regulation in a number of infrastructure sectors with this set-up needs to be carefully designed to maximise end-consumer benefits, or else the expected benefits are unlikely to materialise.

Consultation and negotiation in regulated sectors is not just about creating or enhancing buyer power

Consultation and negotiation may also be intended to address information asymmetries, in particular by providing information on service-level requirements and what investment is likely to be required, when, and at what cost. This is of benefit to the regulator in assessing service and investment requirements, but also to sellers, buyers and stakeholders more widely. In addition, consultation and negotiation can involve a wide range of user types and stakeholders in the process—for example, in order to ensure that government policy or consumer welfare is reflected in agreed outcomes. It is as much about involving a wide range of stakeholder groups as generating buyer power for the actual buyers. The regimes of customer engagement currently being discussed in the regulated energy sector in Great Britain, and the water sector in England and Wales, are examples of this.

For example, stakeholder/customer engagement has been a major component of recent regulatory reviews in the energy and water sectors. In the England and Wales water sector, the 2014 periodic review saw a marked shift towards customer engagement through direct engagement by companies with their customers, scrutiny of business plans by customer challenge groups, and the establishment by Ofwat (the regulator) of a sector-wide customer advisory panel. Meanwhile, the Water Industry Commission for Scotland introduced a Customer Forum to identify customer priorities and negotiate with Scottish Water to achieve the best outcome for customers (within the ranges for key inputs set by the regulator).

Regulators play an important role in designing the consult/negotiate regime

Even where lighter-touch regulation is used, as in the Netherlands, the regulator has an important role in setting out the terms and process for consultation and negotiation, and the credible sanctions if parties cannot agree. For example, the regulator may require consultation and negotiation to focus on certain parameters, such as willingness to pay for different levels of service quality, but not others, such as the cost of capital. The timetable for this process might also be set out in a way that enables meaningful engagement.

Enhanced consultation and negotiation may fit within various regulatory models

While light-touch regulation, if effective, is a substitute for more detailed ex ante price regulation, enhanced user involvement and buyer power might be a complement to, rather than a substitute for, various forms of regulation. Consultation and negotiation can be used alongside all manner of regimes, from the heavy-handed to the light-touch. Even under a system of CPI - X regulation, consultation and negotiation can help to provide information to the regulator on appropriate investment and service levels. Moreover, formal price controls might be used as a credible threat of intervention if consultation and negotiation are not successful.

Conclusion

Taken together, the above points illustrate two important concepts:

- while buyer power tends to be of benefit to consumers, this is not always the case;
- regulators can play an important role in designing the consult/negotiate regime, but it may not be concerned solely with creating or enhancing buyer power.

In particular, the Netherlands experience shows that light-touch regulation may not work unless the industry structure is conducive to creating buyer power, and in a way that is of benefit to consumers. Regulators should take note. There is currently much discussion regarding introducing or enhancing customer engagement, consumer engagement, constructive engagement, and other such terms. What the Oxera study demonstrates is that the timetables and sanctions for non-agreement, as nested within the regulatory framework, are crucial for getting any meaningful degree of negotiation and engagement between parties. Like poker and chess players, firms would work backwards from the worst that could happen, in the event that they fail to engage properly, increase prices, or reduce quality. If these sanctions are ill-defined, too soft, or generally not well understood, light-touch regulation has little chance of working. And firms also need positive incentives to engage.

Getting the 'backstop' arrangements right remains a vital step in an environment where a meaningful consult/negotiate regime is assumed by the form of regulation. Get it wrong, and the regulated company and its customers (intermediate users) 'play for penalties' in the consult/negotiate phase, leaving it all to the regulator. Get it right, however, and the 'market' can do the job of the regulator—which is arguably a much more effective outcome than one in which the regulator tries to second-guess the optimal conclusion.

[1] NMa (2012), 'NMa: Airlines and Railway Undertakings Unable to Stand their Ground against Schiphol Airport and Infrastructure Manager ProRail', transportation press release, 17 September.

[2] Oxera (2012), 'Buyer Power and its Role in Regulated Transport Sectors', report prepared for the NMa, March, available at: http://www.oxera.com/Latest-Thinking/Publications/Reports/2012/Buyer-power-and-its-role-in-regulated-transport-se.aspx. The NMa's subsequent analysis is summarised in NMa (2012), 'Market Consultation – Summary: Buyer Power in the Aviation and Rail Industries'.

[3] Further details of these case studies can be found in Oxera (2012), 'Buyer Power and its Role in Regulated Transport Sectors', report prepared for the NMa, March, available at: http://www.oxera.com/Latest-Thinking/Publications/Reports/2012/Buyer-power-and-its-role-in-regulated-transport-se.aspx.

[4] See also Littlechild, S. (2010), 'The Process of Negotiating Settlements at FERC', 17 October.