Oxera

Buyer power and its role in regulated transport sectors

Report prepared for the NMa

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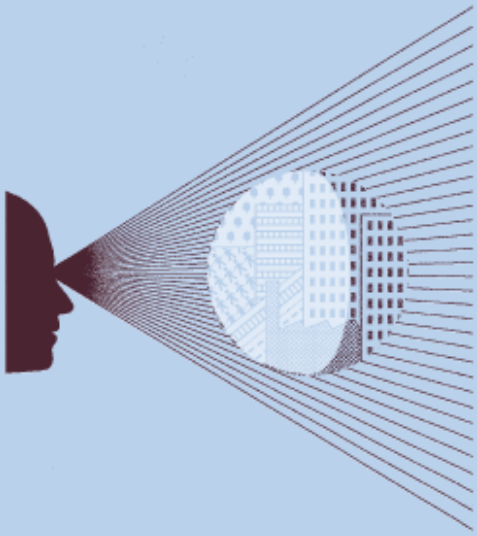

Executive summary

The NMa commissioned Oxera to assess the theoretical relevance of the concept of buyer power to the regulation of the aviation and rail sectors in the Netherlands. In these sectors, an upstream provider supplies services to downstream intermediate users (which in turn provide services to consumers).

– **Amsterdam Airport Schiphol**—the majority government-owned airport (upstream) provides runway capacity and terminal facilities to a number of airlines (downstream intermediate users), including KLM;

– **ProRail and its subsidiary Keyrail**—two government-owned upstream rail infrastructure managers provide track access to several downstream railway undertakings, including NS Rail, DB Schenker NL, and some smaller passenger and freight operators.

The rail and aviation sectors in the Netherlands are regulated under a consult/negotiate regime. Specifically, legislation requires upstream infrastructure providers (rail infrastructure managers; airports) to consult with their downstream intermediate users (railway undertakings; airlines). In rail, there is also a (legal) requirement for negotiation of access terms, and parties are required to reach agreement on these every year.

There is a presumption in the legislation that this consult/negotiate regime (which does not include consumers or other stakeholder groups) creates and enhances the buyer power of the downstream intermediate users, which then limits the incentive for upstream providers to exploit their market power.

The regulatory framework that has followed from this could be described as 'light touch'. It requires limited resources from the NMa, with the sector stakeholders instead implementing the regime. This can be contrasted with more traditional 'CPI – X' (or 'price cap') regulation, where the NMa would set prices and service levels. (In the case of the aviation and rail sectors, the prices are airport landing and rail access charges.)

Going forward, it is important that the above presumption of buyer power—and assumptions about its intended effects—are tested at a practical level to ensure that the NMa's regulatory activities remain fit for purpose in these two sectors. The NMa asked Oxera to identify factors that, in theory, are important in assessing the degree to which buyer power is present and the effects of this buyer power for end-consumers. It also requested a report that is free of policy positions and which can be used to facilitate an open and balanced dialogue with the stakeholders concerned.

A conceptual framework

According to economic theory, buyer power can be examined within two frameworks. Assume that, in a vertical supply chain, an upstream supplier sells an input to downstream buyers. *Monopsony theory* assumes that there is a powerful buyer in a downstream market, and that this buyer can withhold demand for an input, pushing down the (uniform) price it faces, thereby making its inputs cheaper than if it were competing with other buyers at this level in the value chain. Monopsony theory often assumes powerless upstream firms. In contrast, *bargaining theory* assumes that a downstream company can achieve lower input prices through the threat of purchasing less (as opposed to actually purchasing less in the monopsony situation). Here, upstream firms are not 'powerless'; rather, the bargaining

power of the downstream firms may reduce the market power that the upstream firms might otherwise hold. Bargaining power is also known as countervailing buyer power.

The evidence suggests that, in the context of this study, the bargaining theory framework is the more appropriate of the two. This framework also matches the sector characteristics more closely. It enables the interaction of (potentially) powerful buyers and powerful sellers to be investigated, which is the focus of this study. In contrast, the monopsony framework seems less applicable, given its restrictive assumptions about the nature of upstream (competitive) and downstream buyer (monopsony) markets, and the specific assumptions with respect to the supply (cost) function.

Insights from competition policy

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 terminology used in this report is that, while 'buyer power' (ie, bargaining power) is a matter of degree, '*effective* countervailing buyer power' is used to indicate that power is present if the buyer power of downstream operators is of sufficient strength to prevent an upstream business (even one with a high market share) from acting to an appreciable extent independently of its customers. In other words, according to the terminology adopted here, for effective countervailing buyer power to be present, the downstream purchasers of the input must have sufficiently strong buyer power to eliminate the 'dominance' or significant market power (SMP) that the upstream supplier would otherwise have.[1]

The question of whether effective countervailing buyer power is present has been of relevance to both competition authorities and sector regulators. Its presence can be used in abuse of dominance cases brought before competition authorities as a successful defence to demonstrate that upstream dominance is not present. The presence of effective countervailing buyer power can also be used to argue that SMP does not exist in infrastructure sectors and that upfront or 'ex ante' sector regulation is not required (particularly in the telecommunications sector).

Furthermore, in the case of a proposed merger between two or more upstream entities, if the downstream buyers are deemed to have effective countervailing buyer power before the merger, the conclusion that the upstream merger would give rise to a substantial lessening of competition (SLC) in the upstream market is much less likely, at least in cases where effective countervailing buyer power among downstream firms is likely to be maintained after the merger.

What influences the outcome of bargaining?

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; and
– bargaining effectiveness.

[1] The term 'dominance' is used in competition policy cases to explore whether an abuse of dominance has occurred. The term 'SMP' is equivalent to dominance, but is used more specifically in the telecommunications sector to examine whether (some form of) economic regulation should be introduced in a particular situation. Competition policy-makers often refer to the *degree* of buyer power as being 'CBP' or a 'degree of CBP'. Nonetheless, the important question is whether the level of CBP observed is 'effective' or 'sufficient' in eliminating upstream dominance or SMP. For clarity, the terminology adopted here distinguishes between buyer power as a matter of degree and effective CBP as a level of buyer power that eliminates upstream dominance or SMP.

In essence, the outside options are what the parties would do if that they cannot reach agreement (eg, 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 substitute quickly to alternative suppliers, and the nature of consumers' substitutability patterns (eg, 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—at least power that is sufficiently strong to be considered effective countervailing buyer power. Rather, for effective countervailing buyer power to be present, the buyer must be able and prepared to credibly switch a significant proportion of its purchasing away from the supplier over a reasonably short timescale.

Ideally, therefore, the buyer should be able to switch rapidly to competing suppliers—for example, an airline to a rival airport, or a train operator to a rival rail infrastructure provider. To be in a position to do so, buyers must be well-informed about alternative upstream providers; there must be other upstream providers with spare capacity willing to serve the buyer (eg, an alternative train route or airport); there should be few infrastructure investments dedicated to the buyer linked to its purchasing relationship with the upstream firm (eg, few airport facilities that are specific to a given airline[2]); and, importantly, consumers should be willing to switch 'with' the downstream firm (eg, airline passengers should be willing to travel to another airport). Alternatively, to generate increased buyer power, the buyer might promote new entry upstream, or set up or acquire its own upstream operations ('vertically integrate'). Strategies that may generate some buyer power, albeit short of effective countervailing buyer power, include shifting some aspects of capacity to an alternative rail route or airport.

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 sellers' 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 (eg, if there is frequent new entry into the rail sector by rail transportation providers), this increases the seller's outside options, 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.

Again, these issues are a matter of degree. It is necessary to compare in relative terms the outside options of the buyers and sellers to conclude whether buyer power exists, and to what extent.

Bargaining effectiveness is important in influencing the above respective outside options of the buyers and seller(s). Factors determining the effectiveness of bargaining as a process include the ability of the buyer to withhold payments from the seller, the

[2] Where there are specific investments with the existing upstream provider, being 'big' in essence reduces buyer power, as it lessens the likelihood of the buyer switching to an alternative upstream provider.

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 party, and the ability to keep concessions secret also determine bargaining effectiveness.

In regulated sectors, regulators might seek to influence the bargaining effectiveness of the 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.

In practice, the above discussion suggests that, while regulators can influence buyer power, the main determinants of buyer power appear to be structural—ie, the nature of the upstream and downstream markets. Where these structural characteristics are not conducive to creating (countervailing) buyer power, even the best consult/negotiate regime is unlikely to lead to buyer power that eliminates upstream dominance or SMP (ie, buyer power that is sufficiently strong be considered effective countervailing buyer power). So, while the regulatory approach can influence the bargaining process and outside options, and enhance buyer power, in itself it is unlikely to be sufficient to create effective countervailing buyer power.

Regulatory applications of (countervailing) buyer power[3]

Regulatory precedent from many countries suggests that finding a sustainable level of buyer power can be difficult. Two sets of precedent from the transport sector are instructive as they describe what might be considered to be two ends of a spectrum.

At one end of the spectrum, the current regulation of the Great Britain (GB) rail sector severely limits franchised passenger operators' buyer power, by design of their franchise agreement. To reconcile five-year access charge reviews of infrastructure manager, Network Rail, with franchise terms that do not match this periodicity, train operating companies (TOCs) are held financially neutral to changes in access charges arising from access charge reviews, so they are 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.

At the other end of the spectrum, the case of UK airports shows how, in recent years, the Civil Aviation Authority (CAA) has sought to increase the involvement of intermediate users (airlines) and, in effect, to enhance their buyer power. The CAA regulates airports in which effective countervailing buyer power is deemed *not* to exist. While CPI – X regulation is in place, as opposed to light-touch regulation, the CAA has sought to move away from a regime in which it decides on all aspects of the regulatory settlement (including investment) to one of 'constructive engagement'. In this, there is greater involvement of intermediate users (airlines) through a consult/negotiate process. This can be seen as a complement to CPI – X regulation, rather than necessarily a substitute for it.

[3] Further detail of these case studies can be found in section 5 of this report and in the appendices.

However, in promoting constructive engagement, problems have emerged. Information asymmetries, the disparity between the resources available to an airport versus an airline, the resource-intensive nature of the process potentially excluding smaller airlines, and the lack of dispute and/or arbitration mechanisms have all hindered the process. While lessons are being taken on board to improve the process, there is debate about whether previous problems with constructive engagement have been mainly structural or procedural. In terms of structural issues, each airline has its own views on investment levels given its business model; current airlines may not want additional airport capacity if this means increased charges or greater competition from new entrants in future ('time inconsistency'); and airlines' interests may diverge from those of passengers and the wider economy.

The UK airports example illustrates that the interests of intermediate users, with some degree of buyer power, and end-users can diverge: the existence of some degree of buyer power does not in itself guarantee a better deal for current and future consumers (or, taking this further, the wider economy), although this will depend on the circumstances.

The experience of regulation of the New Zealand airports sector by the Commerce Commission is also revealing. In contrast to the UK system, New Zealand airport regulation is light-touch, in that there is no explicit ex ante regulation of prices. Rather, the regime is one of information disclosure, consultation and monitoring. Importantly, 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 difficulty in relocating significant amounts of capacity to an alternative airport. This limits airlines 'outside options, and hence their buyer power. A number of problems have been identified with the cost-plus system of regulation, since it may not encourage efficient investment, and information disclosure and consultation do not appear to have been effective in generating buyer power. The lack of clarity or flexibility on ultimate sanctions, if consultation with airlines is ineffective or if the regulator judges that regulation is not working well, may have hindered the process.

More recent measures have been incorporated to increase the tools available to the New Zealand airports regulator. These can be seen as more interventionist actions by the regulator in the absence of sufficient buyer power, but also as attempts by the regulator to influence the outside options of the parties, as well as increasing transparency.

One example where the inherent structure of the sector appears to have created preconditions for a higher degree of buyer power appears to be 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. It has been noted that '[FERC] observes that the use of settlements better addresses all parties' concerns, dramatically limits the time, expense and resources devoted to these cases, and provides an outcome more acceptable to the parties', compared to the alternative of more formal litigation hearings overseen by FERC.[4]

The FERC case shows that market structure can be crucial in determining whether buyer power will emerge. In this case, there are many intermediate users and large users with a keen interest in gas transportation charges, whose interests are similarly aligned in securing low transportation charges. Gas pipelines also face competition from other fuels, and larger downstream parties are often linked to more than one pipeline. This increases the outside options available to the downstream parties. In addition, it shows that it may not be possible simply to leave the upstream players to determine the framework for, and stages of, the

[4] See Littlechild, S. (2010), 'The process of negotiating settlements at FERC', October 17th.

consult/negotiate process. In this case, the regulator plays an important role in creating conditions that encourage settlements that balance the interests of the various parties.

The case of user involvement in the GB energy sector also illustrates that the purpose of a consultation and regulatory regime is not always to create buyer power; rather, it is to improve the information available to the regulator and the network business about the views of a wide range of stakeholders (not just intermediate users) on which improvements they would like to see. As noted, buyer power does not always result in benefits to end-consumers. More inclusive engagement, across a range of stakeholders, might help to secure such benefits, regardless of the degree of buyer power present.

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 further 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 (in particular, 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. So, 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 downstream. This 'waterbed effect' could harm competition downstream, where rival buyers purchasing from the seller compete in some way downstream, 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. This could result in the smaller retailers being unable to compete in the longer term and exiting the market. However, the waterbed effect relies on the downstream buyers indeed competing in some way downstream. Moreover, this 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. Even if there is a waterbed effect, prices to end-users may still be lower, and exit may not occur in the longer term. In a regulated sector, through careful design of the regulatory regime, an economic regulator might influence the extent to which consumers benefit from buyer power.

Non-price discrimination may also lead to 'quasi-waterbed effects'. If price discrimination is not permitted—for example, where the same uniform price must be offered to all buyers in a given customer class and/or for the same level of service—an upstream firm might still offer services that are more geared to the business model of one particular downstream buyer than to another. In transportation this may arise if service offerings to different downstream buyers involve the use of shared *or* of separate upstream infrastructure. Priorities by the infrastructure provider regarding service levels and investment decisions may be given to larger buyers over smaller ones. Again, in a particular sector, a regulator might seek to examine the extent to which these effects are present, including in a consult/negotiate regime.

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. 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, RU) might not negotiate for the upstream firm to increase its current capacity if this means that more competitors (other airlines; other RUs) 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.

Consultation and negotiation in regulated sectors is not just about creating or enhancing buyer power—rather, it 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 more generally 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 in the regime 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 water sector in England and Wales are examples of this.

Regulators play an important role in designing the consult/negotiate regime. Even where lighter-touch regulation is used, as is the case 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 (eg, willingness to pay for different levels of service quality), but not others (eg, the cost of capital). The timetable for this process might also be set out in a way that enables meaningful engagement. The regulator might wish to provide incentives to the suppliers to engage with their buyers (and other stakeholders) through financial and process incentives, such that the parties are better off seeking agreement than referring the issues to the regulator for a decision. There are examples of this from the process of negotiated settlements in the USA, as facilitated by FERC.

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 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.

Taken together, the above points illustrate two important concepts. First, while buyer power tends to be of benefit to consumers, this is not always the case. Second, regulators can play an important role in designing the consult/negotiate regime, but this may not be solely concerned with creating or enhancing buyer power.

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Glossary

Term	Definition
'Light-touch' regulation	Also termed 'light-handed' regulation, this places emphasis on the parties in the sectors proposing and agreeing on outcomes, rather than involving regulatory intervention. Consult/negotiate regimes tend to be light-touch in nature. It can be contrasted with more 'heavy-handed' ex ante price regulation, where the regulator is more proactively involved in assessing costs and outputs and in determining prices.
Access agreement	See 'Network statement'.
Access charge	Charge levied by an upstream supplier to intermediate users for access to its infrastructure (for example, in rail).
Agency theory	Economic theory whereby different outcomes can arise in the setting of a 'principal–agent' problem. The principal wishes to incentivise the agent to engage in appropriate behaviours, but faces incomplete and asymmetric information, which provides the opportunity for the agent to behave opportunistically. These informational issues may be compounded by transaction costs that, in effect, hinder the monitoring of the behaviour of the agent.
Amsterdam Airport Schiphol	A majority government-owned airport that provides runway capacity and terminal facilities to a number of airlines, including KLM.
Article 101 of the Treaty on the Functioning of the European Union (TFEU). (Formerly Article 81 of the EC Treaty.)	Article prohibiting cartels and other agreements that could disrupt free competition.
Article 102 of the TFEU. (Formerly Article 82 of the EC Treaty.)	Article aimed at preventing undertakings that hold a dominant position in a market from abusing that position.
Bargaining effectiveness	As a matter of process, the ease with which a party can bargain with another party. Bargaining effectiveness will be influenced partly by parties' respective 'outside options' (which are determined mainly by industry structure); and partly by regulatory interventions in relation to information provision, the framing and timing of the bargaining process, and regulatory sanctions.
Bargaining power (or countervailing buyer power) framework	In contrast to the monopsony framework, in a bargaining power framework, upstream providers of inputs are not 'powerless'; rather, they are large and, in the absence of competitive constraints, are assumed to have some degree of market power. The fact that downstream buyers of the input are also large, and have the ability to choose alternatives to the upstream firm, enable the downstream firm(s) to bargain with the upstream supplier(s) to extract better terms. Downstream companies achieve lower input prices through the threat of purchasing less (as opposed to actually purchasing less in the monopsony framework). Countervailing buyer power is a matter of degree. In the context of the current study, it refers to a spectrum of situations in which a (downstream) firm is able to exert pressure on an (upstream) supplier. See also 'Buyer power' and 'Effective countervailing buyer power'.
BARIN	Board of Airline Representatives In the Netherlands.
Buyer power	Buyer power is a matter of degree. In the context of the current study, it refers to a spectrum of situations in which a (downstream) firm is able to exert pressure on an (upstream) supplier.
Capital expenditure (CAPEX)	Expenditure incurred that enhances the asset base of the business. The expenditure is undertaken now in order to earn a return at a future point in time, and tends to be financed through injections of equity and debt capital. Also referred to as 'capital investment'.

Term	Definition
Civil Aviation Authority (CAA)	The UK's specialist aviation regulator, with responsibilities including air safety, economic regulation, airspace regulation and consumer protection.
Commerce Commission	New Zealand's competition enforcement and regulatory agency.
Competition Commission	An independent public body in the UK that conducts in-depth inquiries into mergers, markets and the regulation of the major regulated industries.
Constructive engagement	A term introduced by the UK CAA and used to describe an approach that involves increased use of negotiation between airports and airlines as part of the price-setting process.
Consult/negotiate regime	A regulatory framework in which consultation and negotiation are required as part of the process. See also 'Light-touch' regulation.
Cost of capital	See 'WACC'.
Cost of service regime	A regulatory regime in which rates are set such that regulated charges cover reported actual costs plus a rate of return on assets. Prices are adjusted regularly to match prices to outturn costs. Also known as 'cost-plus' regulation, this can be contrasted to CPI – X (or price cap) regulation, in which the regulator fixes prices ex ante on a forward-looking basis for a set period of time. See also 'Rate of return regulation'.
Cost-orientation requirement	A regulatory requirement (for example, in some regulated sectors in the Netherlands) that charges should, broadly speaking, be reflective of costs.
Countervailing buyer power	See 'Bargaining power framework'.
CPI – X regulation	Also known as 'RPI – X' or 'price cap' regulation. In this approach to regulating infrastructure monopolies, the regulator assesses appropriate cost and quality levels, and sets ex ante, for a fixed period, appropriate prices that the infrastructure business can charge. The prices set take into account forward-looking efficiency projections. In practice, the X factor may be positive or negative, depending on the extent to which future efficiencies are projected to outpace upward pressures on costs. The fixed-price nature of the settlement is intended to provide incentives to the business to outperform, while revealing efficient cost levels over time. This is in contrast to cost of service regulation, in which prices may be changed at regular intervals as outturn costs change.
Customer engagement	Also known as 'customer involvement'. This refers to the proposal that 'customers' become more involved in the process of setting prices, as put forward by the respective regulators of the GB regulated energy networks (Ofgem) and water sector in England and Wales (Ofwat). A greater role is envisaged for reflecting the views of intermediate users, large end-users, and (collectively) smaller domestic consumers. For example, Ofgem is introducing 'stakeholder engagement' as part of its RIIO (formally named RPI-X@20) project.
DB Schenker NL	See 'Railway undertakings'.
Disclosure requirements and input methodologies	Disclosure requirements are placed on regulated businesses to disclose information to the regulator, bargaining parties, and to the public. Input methodologies are requirements for regulated businesses to analyse their required revenues in line with a specific methodology and guidance issued by the regulator (eg, the methodologies for allocating costs, or assessing the WACC). In particular, the terms are used in the regulation of utilities and networks in New Zealand.
Disconnected handling	A specific term in airports where airline passengers do not make use of passenger bridges at certain airport piers, instead covering the distance from the aircraft to the airport by bus or on foot.
Diseconomies of scale	These exist where the cost of producing each additional unit costs more than the one before.

Term	Definition
Dominance	A firm is dominant if, when setting prices and taking output decisions, it has the ability to act independently of its competitors and customers. Market power is defined generally as the ability to price profitably above the competitive level, and it is a matter of degree: if a firm is dominant, it has a sufficiently high degree of this market power, which in theory would enable it to profitably raise prices to a sufficient level, and for a sufficient period of time, above the competitive level. In the EU, there is no single prescription of how dominance should be measured. The analysis of dominance tends to include an assessment of market shares, barriers to entry and exit, and the extent of buyer power. See also 'Significant market power'.
Downstream intermediate users	Firms that purchase services from upstream providers, and then sell on to end-consumers (end-users) in the retail market. In the context of the current study, downstream intermediate users are airlines and railway undertakings.
Dynamic efficiency	A broad term used to describe the optimal path of costs (and, more broadly, outcomes for society) over time. (For example, in relation to CAPEX: does the right investment occur, at the right cost, and at the right time? Does this maximise overall societal welfare over time?)
End-consumers	Final consumers (or end-users) who purchase the end-product in the retail market.
Effective countervailing buyer power	Building on concepts used by competition authorities (including the European Commission), *effective* countervailing buyer power is present where the buyer power of one firm is sufficient to reduce the upstream market power of a firm from which it purchases, to the extent that the latter firm is not dominant or, equivalently, does not have SMP. In the context of the current study, effective countervailing buyer power exists when a downstream firm (an 'intermediate user', which sells on to end-consumers) is sufficiently powerful to eliminate the dominance (or, equivalently, SMP) that an upstream business selling to the downstream party would otherwise possess. To obtain effective countervailing buyer power requires a number of criteria to be met—not least that the 'outside options' of the buyer (what it would do in the event of non-agreement) compare favourably to those of the seller, including that the buyer has the ability and inclination to switch a large proportion of trade to an alternative upstream firm in the short to medium term.
European Commission 2002 Electronic Communications Directive	Directive 2002/21/EC sets out a common regulatory framework for electronic communications networks and services. This includes the objective of a harmonised framework across Europe for the regulation of electronic communications services and networks. The Directive specifies tasks and procedures to be followed by the national regulatory authorities in Member States, and introduced the concept of SMP for the purposes of Member States assessing whether aspects of ex ante economic regulation should be introduced in certain communications sectors.
Ex ante	'Before the event'.
Ex post	'After the event'.
Federal Energy Regulatory Commission (FERC)	An independent agency in the USA which regulates the interstate transmission of electricity, natural gas and oil.
Financial incentives	Incentives for companies to perform that are tied directly to financial rewards and penalties.
Horizontal mergers	Mergers between two firms operating at the same level of the supply chain in a given market. (For example, a merger between two airlines that are judged by the competition authorities to reside in the same market.)
IATA	International Air Transport Association.
Information asymmetry	Where one party holds better information than another, which can result in the advantaged party being in a better bargaining position.

Term	Definition
Infrastructure managers (IMs)	Term used to describe the upstream providers of rail infrastructure in the Netherlands (ProRail and its subsidiary, Keyrail).
Joint effects	These emerge from coordinated behaviour among a handful of firms in a market to restrict competition.
Keyrail	A subsidiary of ProRail, owned jointly by ProRail (50%), the Port of Rotterdam (35%) and the Port of Amsterdam (15%), Keyrail was set up in 2006 by the government in the Netherlands as the rail infrastructure management company responsible for commercial operation, capacity management and route safety.
KLM	Koninklijke Luchtvaart Maatschappij N.V., operating under the name KLM Royal Dutch Airlines, is the national airline of the Netherlands.
KNV	Royal Dutch Transport Federation is a Dutch rail freight support association.
Market power	Where a firm has strength in the market to undertake price and output decisions in a way that is not constrained by its competitors (this strength being a matter of degree). See also 'Dominance' and 'Significant market power'.
Mobile call termination (MCT) charges	Charges that mobile network operators (MNOs) levy on other networks (rival MNOs and fixed-line operators) in return for enabling a call to be completed ('terminated') when the call has been dialled by someone ('originated') on another network.
Monopoly	A situation in which there is a single firm operating in a market.
Monopsony framework	A situation where a downstream firm is the only purchaser of an input produced by an upstream firm (or firms), such that the buyer has power over the upstream supplier(s). A monopsonist firm may be present in either the 'monopsony framework' or 'bargaining framework' for examining bargaining power. Importantly, in the former, the downstream firm is usually assumed to have buyer power over multiple 'powerless' upstream suppliers. Such power is exercised through the downstream buying firm being able to withhold demand for the input—that is, requiring less quantity of input—relative to a competitive marketplace for buying the input.
Multi-sided market	This brings together two (or more) sets of customers in a way that enables each set to benefit. Airports can be considered as one way in which two sets of customers (airlines and passengers/freight customers) are brought together, with each customer set benefiting from the interaction caused by the airport (airlines benefit from more passengers using the airport, while passengers benefit from more destinations served by more airlines at the airport).
Natural monopoly	Where it is significantly less costly for one firm to operate in a given market than for several firms to compete to supply services in the market. Often this is because of the capital-intensive nature of the sector concerned. For example, it may be unduly costly to have duplicate electricity networks in one geographical area.
Network Rail	The not-for-dividend owner and operator of Great Britain's railway infrastructure for freight and passenger trains. Network Rail also manages the largest train stations.
Network statement	Each year, the infrastructure managers (IMs) in the Netherlands (ProRail and Keyrail) consult on a network statement, which contains information on access charges and the capability of their respective networks, and is the basis on which access agreements between the IMs and rail undertakings can be negotiated and concluded.
NMa	Nederlandse Mededingingsautoriteit (Netherlands Competition Authority).
OD	Origin–destination.
Office of Rail Regulation (ORR)	The independent safety and economic regulator for Great Britain's railways.

Term	Definition
Office of Fair Trading (OFT)	In the UK, the OFT enforces consumer protection law and competition law, reviews proposed mergers and conducts market studies.
Ofgem	The independent economic regulator for electricity and gas markets and networks in Great Britain.
Ofwat	The independent economic regulator of the water and sewerage companies in England and Wales.
Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA)	The regulator of the postal and communications sectors in the Netherlands. Its main work is in assessing and implementing regulation (for example, based on the requirements of the European Commission Electronic Communications Directive), and in promoting competition, competition policy and consumer protection.
Operating expenditure (OPEX)	Expenditure incurred in the day-to-day running of a business (for example, labour costs, power costs, materials). Also termed operating costs.
Outside options	Relevant to the bargaining power framework, these refer to what an upstream seller or a downstream buyer would do in the event that negotiations failed. The number and strength of the outside options that a buyer has relative to the supplier will determine, to a large extent, the relative bargaining strength of the two parties. The main determinant of parties' outside options is the market structure concerned, as this will affect the ease with which the parties can switch trade to outside parties over the short to medium term.
Overbuying	This involves a buyer increasing the purchases of an input to gain either monopsony power in the input market ('predatory overbuying') or market power in the downstream final output market ('raising rivals' costs overbuying').
Pass-through	The degree to which changes in the costs that a firm faces are passed through to end-consumers.
Price discrimination	Charging different prices to different consumers for the same product or service when these differences in prices do not reflect differences in costs. Alternatively, price discrimination can involve charging the same prices to different consumers when the product or service offering differs between consumers (and when the costs of production differ across customer groups). Price discrimination can be output- and welfare-enhancing, and so is not an abuse under European competition rules per se. However, some forms of price discrimination can be harmful to competition. In addition, sector regulators may introduce specific sector rules that limit the scope for undue price or other discrimination.
Price-maker/price-setter	A party that is able to materially influence the prices set in a particular market (for example, in purchasing or in selling an input).
Price-taker	A party that is unable to individually influence the prices set in a particular market (for example, in purchasing or in selling an input).
Price–cost margins	The extent to which prices exceed costs (and hence a determinant of profitability).
Procedural incentives	Incentives for companies to perform that are linked to encouraging a smoother, less detailed and less intrusive process.
ProRail	One of two rail infrastructure mangers in the Netherlands, ProRail provides track access to several train operators, including the incumbent passenger services operator, NS Rail, the incumbent freight operator, DB Schenker NL (formerly Railion), and some smaller passenger and freight operators that have entered the market. ProRail is government-owned.
Rail undertakings (RUs)	Term used to describe the downstream rail companies in the Netherlands (including NS Rail, DB Schenker NL, and some smaller passenger and freight operators).

Term	Definition
Rate-of-return regulation	Under this system, which is closely related to 'cost of service regulation', regulated companies can seek a rate review to increase charges (or the regulator can ask for a rate review to reduce charges) in the event of cost shocks leading to company returns falling below (or rising above) a defined level or range. This can be contrasted to 'CPI – X' (or 'price cap') regulation.
Retail market	The final product market.
Significant lessening of competition (SLC)	A term used by competition authorities to determine whether a merger between two or more parties would result in a material reduction in competition in the market or markets considered.
Significant market power (SMP)	The European Commission defines SMP as a firm's ability to act independently of competitors and customers. It is thus defined in similar terms to the competition law concept of 'dominance'. However, dominance is usually assessed in the context of ex post competition law cases. The Commission introduced the concept of SMP as part of the Electronic Communications Directive to enable Member States to assess whether an element of ex ante regulation should be introduced in their respective telecommunications sectors.
Tacit collusion	Where two companies in a market agree on a certain strategy without stating or agreeing it explicitly. This is in contrast to 'overt' collusion, in which such agreements are explicit.
Tariff differentiation	To charge different charges for different packages or services. In the Netherlands context, there have been discussions on the extent to which non-discrimination rules mean that 'tariff differentiation' in rail access agreements, based on quality of service, is permitted. See also 'Price discrimination'.
Time-inconsistency	A term to describe how a decision-maker's preferences change over time such that what is preferred or optimal at one point in time is inconsistent with what is preferred or optimal at another point. Such decision-making and optimality can, broadly speaking, be from an individual, sector or societal perspective. For example, optimal investment decisions by firms currently present in a particular sector may not be consistent with optimal outcomes for the sector in the longer term.
Train operating companies (TOCs)	A term used in the GB rail sector to describe various companies operating passenger train services. TOCs use the rail infrastructure provided by Network Rail. They also lease and manage stations from Network Rail.
Transparency requirement	A term used in network regulation in the Netherlands relating to the transparency of charges set and the provision of other information by a regulated firm. See also 'Disclosure requirements and input methodologies'.
Uneven bargaining power	A situation in which buyer power across downstream firms that purchase from upstream suppliers is uneven. This may lead to the more powerful buyer(s) being able to secure better terms. However, this is a matter of degree. This may or may not generate significant waterbed effects.
Unilateral effects	The effects on competition of one body behaving unilaterally to restrict competition, assuming a normal competitive response from other firms in the market. This can be contrasted to 'Joint effects'.
Upstream providers	The providers of infrastructure services in the upstream part of the value chain. Downstream intermediate users purchase services from the upstream providers. In the context of the current study, upstream providers are airports and rail infrastructure managers.
Vertical integration	Where the activities involved at different stages of the supply chain are merged and reside under the same ownership—for example, where a single firm is an upstream infrastructure supplier and a downstream intermediate user operating in the retail market. This can be contrasted to vertical separation, where there is separation along the supply chain between different activities. Vertical separation is, however, a matter of degree, for example taking the form of accounting separation at one extreme, to full ownership separation at the other.

Term	Definition
Vertical restraints	Restrictions in agreements between firms at different levels of the supply chain (for example, between upstream suppliers and downstream firms). Vertical restraints may or may not restrict competition, depending on context.
Weighted average cost of capital (WACC)	The return that investors would require to invest in a particular company or group of companies, as opposed to other investment opportunities available, weighted according to the share of debt and equity financing. It is a benchmark return against which the return on assets allowed for a network utility can be determined.
Waterbed effect	A situation where reductions in prices for one group of customers cause prices for other consumers to rise. In the context of a bargaining framework, the concern is where buyer power across the downstream firms is uneven. Here, the buyer power of one downstream firm can lead to it negotiating lower input prices, but this leads to higher input prices being charged to its downstream competitors. In turn, this may harm downstream competition. The existence and extent of waterbed effects will vary according to the specific context. Concerns will exist if this leads to higher overall consumer prices in the shorter term and, in particular, the exit of firms in the longer term.
Wholesale market	The market in which upstream suppliers produce the input (which is purchased by intermediate users).

1 Introduction

The NMa commissioned Oxera to assess the concept of buyer power in the context of the regulation of the aviation and rail transport sectors in the Netherlands.

The legislative framework and the current regulatory approach in the sectors assume that buyer power is present. The NMa is considering how to optimise regulation in the two sectors. As a first step, it wishes to obtain a better understanding of the factors that, in theory, determine the extent and effects of 'buyer power'.

By way of some further background, in both the aviation and rail sectors an upstream infrastructure business that has been found to possess market power sells its services to downstream (intermediate) users. These intermediate users, in turn, sell services to end-consumers.

While the form of economic regulation, and hence the precise involvement of the NMa, differs in the two sectors, in both regulation is relatively 'light-touch'. Emphasis is placed on the parties in the sectors proposing and agreeing on outcomes. This can be contrasted with more 'heavy-handed' ex ante price regulation, where the regulator is more proactively involved in assessing costs and outputs, and in determining prices.

The way in which regulation should be approached in the two sectors was set out in legislation in the Netherlands. In particular, in each sector the upstream service provider is required to consult and/or negotiate with key downstream intermediate users. It was hoped that this requirement, and the transparency created, would enable a more light-touch regulatory approach to be sustained, which would be less costly to implement (and less intrusive) than more detailed ex ante price cap regulation. The intention was that, in each sector, the consult/negotiate process would help to create and maintain buyer power among the intermediate users. In combination with other aspects of the regulatory regime (for example, a requirement for tariffs to be 'cost-oriented'), this would help to constrain the market power of the upstream providers, and encourage the upstream businesses to be efficient and deliver a good standard of service.

Going forward, it is important that the above presumption of buyer power—and assumptions about the intended effects of this buyer power—are tested at a practical level to ensure that the NMa's regulatory activities remain fit for purpose in the two sectors.

The NMa has commissioned Oxera to explore the theoretical relevance of the concept of buyer power in the two sectors, and, in particular, to identify factors that, in theory, are important to assessing the degree to which buyer power is present and the effects of this buyer power for end-consumers. The NMa has then asked Oxera to develop a framework for the NMa to use to assess the extent of buyer power, and its effects, in the two sectors. The NMa asked Oxera to write a report that is free of policy positions and which can be used to facilitate an open and balanced dialogue with the stakeholders concerned.

1.1 Background

An overarching question examined in this study is whether, when a downstream intermediate user purchases services from an upstream provider, it has sufficient buyer power to discipline the upstream monopoly such that the outcomes are aligned with the end-consumers' interests. This is examined here in generic terms, building on the theory and practical application of the concept of buyer power elsewhere.

The potential relevance of the concept of buyer power to the Netherlands transportation sectors is that, in the two sectors concerned, there is a buyer–seller relationship between the following upstream businesses and downstream (intermediate) users.

– **In rail**: ProRail and its 'subsidiary' company, Keyrail—as upstream monopolists, these two rail infrastructure operators provide track access to several train operators, including the incumbent passenger services operator, NS Rail, the incumbent freight operator, DB Schenker NL (formerly Railion), and some smaller passenger and freight operators that have entered the market. ProRail is government-owned and Keyrail is part-owned by ProRail and the ports of Rotterdam and Amsterdam.

– **In airports**: Amsterdam Airport Schiphol—this majority government-owned airport provides landing slots and terminal facilities to a number of airlines, including KLM (the national carrier which uses Schiphol as a hub) and many others.

An important question is how best to regulate upstream businesses in a way that limits their ability to exercise market power. Regulation should seek to ensure that prices charged are not excessively above costs (ie, to eliminate profits derived from market power). At the same time, it should encourage the upstream businesses to operate efficiently, deliver efficient levels of investment, and quality of service that end-consumers want.

In both respects, a common characteristic in the two transportation sectors in the Netherlands is that the upstream businesses are legally obliged to provide information to their downstream intermediate users, and to consult with them. (In the rail sector, there is also a legal obligation to negotiate and reach agreement.) It was hoped that this process would create buyer power among the downstream users in the respective sectors, constraining the upstream operators' ability to exercise their market power, leading to lower charges (first-order effects), efficient cost levels, and appropriate levels of quality (second-order effects).

In particular, the Dutch government imposed obligations in both sectors with respect to transparency, consultation, taking users' views into account, the ability of parties to file a complaint to the NMa, and, in the case of rail, to negotiate.

The NMa provided to Oxera oral and written descriptions of the nature of consultation and negotiation in the rail and airport sectors. Oxera notes the following.

– **Rail**: each year, the infrastructure managers (IMs) in the Netherlands (ProRail and Keyrail) consult on a network statement, which contains information on access charges and the capability of their respective networks. This statement forms the basis on which access agreements[5] between the IMs and rail undertakings (RUs) can be negotiated and concluded. There is a requirement in the rail sector for annual agreement to be reached between each RU and the relevant IM on the price and terms of access.

– **Airports**: Amsterdam Airport Schiphol is subject to regulatory obligations in respect of its tariffs and conditions, which are enforced by the NMa. Schiphol has to demonstrate that its tariffs are cost-oriented (eg, revenues at or equal to costs), non-discriminatory and reasonable. It sets tariffs at least once per year, and is required to consult on them and associated service levels with airlines.

Consultation and negotiation can in principle be seen as an alternative to a more 'standard' approach of regulating infrastructure monopolies (ie, using more detailed ex ante CPI – X economic regulation, as applied in the Dutch energy sector, for example). In this more standard approach, having assessed the appropriate cost and quality levels, the regulator sets for a fixed period of time appropriate prices that the infrastructure business can charge.

[5] Without an access agreement, an RU is not permitted to operate on the network.

In theory at least, the consult/negotiate approach has some key advantages over a standard approach such as CPI – X regulation. First, the outcome may be more likely to deliver what downstream users want (in terms of service, investment, efficiencies and prices). Second, the scope and cost of regulatory intervention can be lower. Assuming that intermediate users have sufficient buyer power, buyers may be able to discuss and negotiate with the upstream provider to secure favourable outcomes.

While the consult/negotiate approach was, in theory, intended to engender buyer power, it is important that the above presumption of buyer power—and assumptions about the intended effects of this buyer power—are tested at a practical level to ensure that the NMa's regulatory activities remain fit for purpose.

The NMa wishes to gain a better understanding of:

– what factors, in theory, determine whether buyer power is present;
– when is it judged to be the case in common competition and regulatory policy practice that buyer power is strong enough to oppose the market power of an upstream business; and
– the effects of buyer power.

The NMa is also interested in how the above can be translated into a framework for assessing the degree to which buyer power is present in the regulated aviation and rail transportation sectors, and the effects of this buyer power for end-consumers.

1.2 Structure of this report

Oxera has undertaken two phases of work to assess the issues raised by the NMa.

– **Part A develops a theoretical and assessment framework**, exploring what, in theory, is meant by buyer power, the factors that influence it, and its effects on outcomes (sections 2 to 5).

– **Part B develops a framework that might then be applied by the NMa** to the two transportation sectors in the Netherlands—rail and airports—to explore the degree to which buyer power is present and the potential impacts on end-consumers (section 6).

In more detail, the report is structured as follows.

– **Section 2** introduces what is meant by buyer power, and outlines two alternative frameworks: monopsony, and bargaining theory. Some hypothetical illustrations are also provided of industry structures and forms of buyer power that might emerge.

– **Section 3** examines what competition policy rules say about buyer power (in particular, whether *effective* countervailing buyer power is present).

– **Section 4** examines, in a bargaining theory framework, the academic literature on buyer power, to explore when it is more likely to emerge.

– **Section 5** looks at lessons from economic regulation of infrastructure sectors elsewhere in terms of what leads to buyer power and its effects.

– **Section 6** then sets out a framework that could be used to assess the extent of buyer power in the two transportation sectors in the Netherlands.

2 What is buyer power in theory?

This section explores:

– what is meant by buyer power in theory;

– two main conceptual frameworks for analysing buyer power—monopsony, and bargaining power—including stylised illustrations of how monopsony or bargaining power might emerge and the potential effects;

– which of the two conceptual frameworks appears most relevant in examining buyer power in the rail and airports infrastructure sectors.

The factors that affect buyer power are discussed in more detail in sections 3 and 4.

2.1 Two conceptual frameworks

Buyer power can be a somewhat contentious topic, even in so far as defining what is meant by the term. The overall theoretical framework that is relevant to considering buyer power, the mechanisms through which buyer power emerges, and the effects on economic welfare are, similarly, the source of much debate in the literature.

Chen (2008), recognising that no single definition of buyer power exists in the literature, and proposes a wide-ranging one:[6]

> Buyer power is the ability of a buyer to reduce price profitably below a supplier's normal selling price, or more generally the ability to obtain terms of supply more favourable than a supplier's normal terms. The normal selling price, in turn, is defined as the supplier's profit-maximizing price in the absence of buyer power. In the case where there is perfect competition among suppliers, the normal selling price of a supplier is the competitive price, and the buyer power is *monopsony power*. On the other hand, in the case where competition among suppliers is imperfect, the normal selling price is above the competitive price, and the buyer power is *countervailing power*. [emphasis added]

This definition therefore encompasses the two main theoretical frameworks through which buyer power can be examined: monopsony buyer power and bargaining power. However, there is not yet one modelling framework that bridges both of these, in effect leaving practitioners to choose between them.[7]

– **Monopsony power** can be regarded as the mirror image of the familiar model of upstream seller monopoly power and multiple (powerless) downstream buyers. A monopsony refers to a situation where there is one firm purchasing an input to production, such that the large buyer has power, usually over multiple 'powerless' upstream suppliers.[8] In the context of the current study, monopsony power may occur where a downstream firm is the only purchaser of an input produced by upstream firms. Such power is exercised through the downstream buying firm being able to withhold demand for the input—that is requiring less quantity of input—relative to a competitive marketplace for buying the input. The monopsonist recognises that each additional unit of the input (its marginal cost) becomes more costly for upstream firms to produce, and

[6] Chen, Z. (2008), 'Defining Buyer Power', *The Antitrust Bulletin*, **53**:2, pp. 241–49.
[7] Inderst, R. (2008), 'The Economics of Buyer Power', University of Frankfurt (IMFS), Expert Testimony at OECD Roundtable 'Buyer Power', October.
[8] Chen, Z. (2007), 'Buyer Power: Economic Theory and Antitrust Policy', *Research in Law and Economics*, **22**, pp. 17–40.

is in a position of power to restrict the input demanded and so pay a lower price. Too little of the input is produced relative to the efficient level.

– **Bargaining power**—rather than upstream providers of inputs being 'powerless', in this framework they are large and, in the absence of competitive constraints, are assumed to have some degree of market power. Hence, there is the *possibility* of profits significantly above the competitive level upstream (eg, monopoly profits). Because downstream buyers of the input are also powerful, this serves to counteract (to some degree) the market power of the upstream firm (or firms). There is not so much a sale of the input by the upstream firm; rather, buyers and sellers enter into bilateral negotiations in an attempt to extract better terms (eg, individual buyers seeking discounts). A multiplicity of outcomes may arise in terms of end-user prices and welfare, depending on the assumptions.

Importantly, it is not clear whether, and if so how, wholesale discounts to large downstream firms are passed through to end-consumers—being dependent on both the framework adopted and the assumptions of the model concerned.[9] In general, monopsony power is welfare-reducing, whereas bargaining power is more likely to be welfare-enhancing. Nonetheless, even in the bargaining framework, the effects of buyer power will depend on the characteristics of the sector concerned and the model assumptions—in particular, in relation to whether the downstream market is competitive.

2.2 Monopsony power

The simplest textbook approach to buyer power in an input market is one that considers it to be a mirror image of monopoly (seller) power in a goods market. In the same way as powerful sellers exercise market power by 'withholding' supply (and thereby driving prices up), powerful buyers in a monopsony situation can withhold demand for an input. This pushes down the 'uniform' (single) price paid for the input.

The basic monopsony model assumes that:

– there are many upstream providers of the input competing to supply the input to downstream buyer(s)—they are 'powerless' suppliers;

– there is one downstream buyer of the input (at least in the case of pure monopsony);[10]

– a uniform (ie, single) price is charged for the input produced by the upstream firms for all units of output and to a downstream buyer;

– upstream suppliers face 'diseconomies of scale', such that each extra unit becomes more costly to produce than the one before. This gives rise to an upward-sloping supply curve for the input—the uniform price of the input to downstream users increases as they demand more of the input.

In a competitive buyer market, the buyer firms would be price-takers in purchasing the input, with the price of the input set at the point where supply equals demand. By contrast, the monopsonist's privileged position as a dominant buyer means that it is a 'price-maker' rather than a 'price-taker'—it knows that, were it to offer a low price for the input, it need not be concerned about other competitor buyers outbidding it in the input market. It also recognises that the more of the input it demands, the higher the price it will pay for each unit of the input, as a consequence of the upward-sloping supply curve.

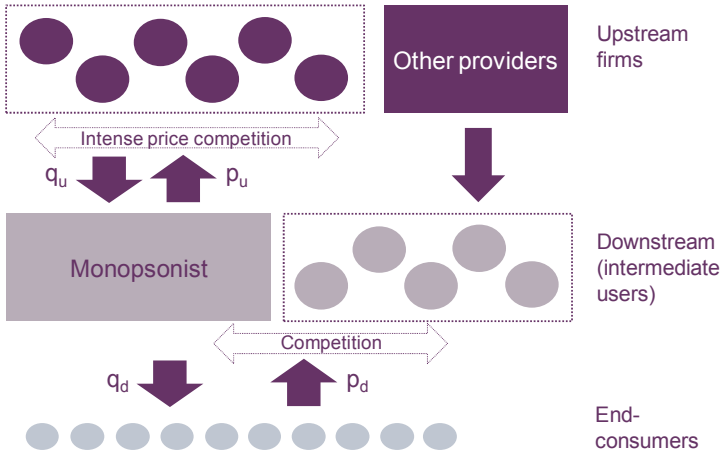
[9] Snyder, C.M. (2008), 'Countervailing Power', in S.N. Durlauf and L.E. Blume (eds), *The New Palgrave Dictionary of Economics*, second edition, Palgrave Macmillan.
[10] In practice, monopsony power can be exercised by a monopsonist (one buyer), oligopsonists (a selection of a few large buyers), or a dominant buyer (if a single buyer accounts for a significant portion of a seller's demand).

Hence, the monopsonist has both the incentive and the ability to reduce, below the competitive level, the quantity of input demanded, in order to drive down the input price paid. The upstream firms still cover their costs, but the outcome is inefficient as they produce a lower quantity than under a competitive buyer market.[11] This reduction in quantity creates a 'deadweight welfare loss'. The situation also involves some rent transfer from upstream firms to the downstream buyer, making upstream firms worse off.[12]

The overall finding—that the monopsonist purchases less than it would without the monopsony power—is largely independent of the state of downstream competition (ie, whether the monopsonist competes to sell the final product in the downstream market, or also enjoys monopoly power). Moreover, this situation can exist even in the case of very intense downstream competition.[13] Nonetheless, the nature of downstream competition will affect the extent of distortions to final consumer prices and output in the final goods market, and hence the overall level of welfare loss.

When there is competition in the downstream market (from competitors that source their inputs from other upstream firms), as in Figure 2.1, the monopsonist will not be able to affect the final price that consumers pay by reducing its purchases in the input market (q_u). Its own output will be lower in the final product market and it will earn rents from paying a reduced input price (p_u). However, it is constrained to the market price (p_d) determined in the downstream market by competing firms (ie, it is a price-taker in the market for the final product). Since these firms will also increase their output to cover the shortfall created by the monopsonist, the price and output level are unchanged in the final market and the overall welfare loss is limited to the upstream market.

Figure 2.1 Monopsony with downstream product market competition



Source: Oxera.

In contrast, the monopsonist might be a monopolist in the downstream product market (or at least enjoy a significant degree of downstream market power). In this instance, it will be able to earn rents from both markets by paying a reduced input price and selling at an increased final product price. This is because, when the monopsonist chooses to purchase less input and produces less output in the final product market, other downstream firms are unable to make up for the output shortfall. The overall welfare loss is greater in this case, occurring in both the upstream (input) and downstream (final product) markets.

[11] The situation might be thought of as either lowering output from the same number of firms or forcing out of the market higher-cost upstream firms (which are nonetheless of value to society).
[12] In a situation of a competitive buyer market, some low-cost firms would have been willing to supply the input for less than the prevailing market price, and so would have enjoyed some rent. Because the monopsonist forces the input price down, it extracts some of this rent.
[13] Chen (2007), op. cit.

The above discussion shows that monopsony is generally welfare-reducing, although this model relies on a few key assumptions, which might limit its relevance in the context of the 'regulated infrastructure sectors' considered in this study.

– The upstream firms are powerless and compete intensely with one another. The upstream firms in airports and rail could potentially have some degree of upstream market power.

– The buyer and the supplier do not 'bargain' with one another. The consult/negotiate process involved in these sectors is more akin to bargaining between upstream and downstream players than the sale of a commodity by the upstream players.

– The upstream firms can charge a single uniform price only. If this is not the case, and a range of 'non-linear' prices is possible, this might eliminate some of the deadweight welfare loss.[14]

– The supplier faces an upward-sloping supply (cost) curve. If the input supply curve were flat, the monopsonist would not alter its behaviour and no welfare loss would occur.[15]

– Monopsony power is realised through the actual withholding of demand, rather than the threat of doing so. It is this that generates inefficiency in monopsony. This is different to bargaining theory, in which it is the threat to withhold or withdraw demand that provides the buying firm with power (as explained below).

The appropriate framework to consider is therefore more likely to be a bargaining framework, in which the upstream firm would have a degree of market power, and in which some degree of countervailing buyer power—as discussed below—may be present to counteract this.

2.3 Bargaining power

Bargaining theory is an alternative framework to monopsony for analysing buyer power.[16] In this framework, buyer power is often called 'bargaining power', 'countervailing buyer power' or simply 'countervailing power'.

Galbraith (1952) first coined the term 'countervailing power' to describe the ability of large buyers (in concentrated downstream markets) to extract price reductions from suppliers.[17]

> The fact that a seller enjoys a measure of monopoly power, and is reaping a measure of monopoly return as a result, means that there is an inducement to those firms...to whom he sells to develop the power with which they can defend themselves against exploitation.

The concept of countervailing buyer power has since developed alongside developments in bargaining theory. Countervailing buyer power is where the upstream organisation holds some market (supplier) power, and where the buyer is also of a sufficient size and importance to counteract act this, because of the credible threat of imposing punishment on the upstream firm. As explained by the OECD (2009):[18]

> In a bargaining framework, buyer power is associated with the ability of the buyer to *extract surplus* from a supplier. In this setup, differences in buyer power are reflected in differences in individually negotiated discounts. In this context, a number of definitions

[14] Chen (2007), op. cit.
[15] This is similar to a monopoly case, when the demand curve of consumers is perfectly elastic.
[16] The bargaining framework includes bilateral monopoly in which there is an upstream monopolist producing an input bargaining with a downstream monopsonist purchasing the input. In contrast to the monopsonist 'framework' described above, in this instance the monopsonist is not a pure price-maker.
[17] Galbraith, J.K. (1952), *American Capitalism: The Concept of Countervailing Power*, Houghton Mifflin Company.
[18] OECD (2009), 'Monopsony and Buyer Power', report on policy roundtables held in October 2008, DAF/COMP(2008)38, as published December 2009, p. 26.

> of buyer power have been suggested including—the bargaining strength that a buyer has with respect to suppliers with whom it trades, where the bargaining strength of a buyer depends on its ability to *credibly threaten to impose an opportunity cost—harm or withdrawal of a benefit—if it is not granted a concession*. [emphasis added].

As further explained by the OECD (2009), in this regard, bargaining power is different from monopsony power:[19]

> The lower price obtained from monopsony power is achieved through the act of purchasing less, not, as with bargaining power, the threat of purchasing less. Moreover, bargaining power cannot be exercised when suppliers are competitive. It is not possible to push suppliers to price below marginal cost. *Bargaining power can only be exercised when in its absence suppliers would exercise market power.* [emphasis added]

Hence, bargaining power (countervailing buyer power) can be viewed as the power that buyers exercise against the market power of suppliers, stemming from the strategic threat of reducing input demanded, rather than the actual reducing it. The importance of the buyer to the seller and its ability to withdraw from purchasing mean that it can credibly threaten the upstream buyer if too high an input price is set.

The existence of individual discounts or different terms of contract between downstream firms alone is not, however, sufficient to demonstrate that buyer power is present. As will be explained in sections 3 and 4, there are various indicators of the presence and strength of bargaining power of buyers relative to suppliers—in particular whether the 'outside options' of the buyer (what they would do in the event of non-agreement) compare favourably to those of the seller. Countervailing buyer power, and the extent to which it offsets upstream market power (however defined), is a matter of degree.

What is clear, however, is that countervailing buyer power is more likely than monopsony power to create benefits for welfare. In this regard, the OECD (2009) adopts a cautionary tone, noting that bargaining power *may* be welfare-enhancing:[20]

> the welfare implications of the two types of buyer power are going to be very different. Monopsony and oligopsony power, assuming the absence of price discrimination, will result in a quantity distortion and loss of efficiency in the input market, and will likely harm consumers in downstream markets. It is less clear what the welfare implications are, and therefore what the role of competition policy is with respect to bargaining power. Indeed, to the extent that bargaining power exercised by buyers is *countervailing (i.e. offsets in whole or in part the market power of sellers), it may increase output in the upstream market and increase the welfare of consumers in the downstream market.* [emphasis added]

It is, however, possible to say more on when countervailing buyer power will generally be welfare improving and when it is likely to harm welfare. When analysing the effects of countervailing buyer power, it is necessary to distinguish between the upstream market and the downstream market, in that the presence of buyer power does not necessarily mean that the buyer in question is also dominant downstream.[21] Chen (2007) notes that, in contrast to monopsony, the welfare effects of countervailing power 'depend *critically* on the state of competition in the downstream market' [emphasis added]. Based on a literature review, Chen (2007) identifies that consumers are 'more likely to benefit from countervailing power and consequently welfare is more likely to improve when there is *intense competition in the downstream market*.' [emphasis added]. For example:

[19] Ibid., p. 26.
[20] Ibid., pp. 26–27.
[21] Chen (2007), op. cit.

– in the context of downstream retailers purchasing from upstream suppliers, both von Ungern-Sternberg (1996)[22] and Dobson and Waterson (1997)[23] show that, as the number of retailers falls, the remaining retailers gain countervailing power against their suppliers (reducing wholesale prices), but also gain market power against consumers (boosting downstream price–cost margins). If downstream retail competition is 'intense', the former outweighs the latter, meaning lower retail prices (otherwise, consumers face higher prices).

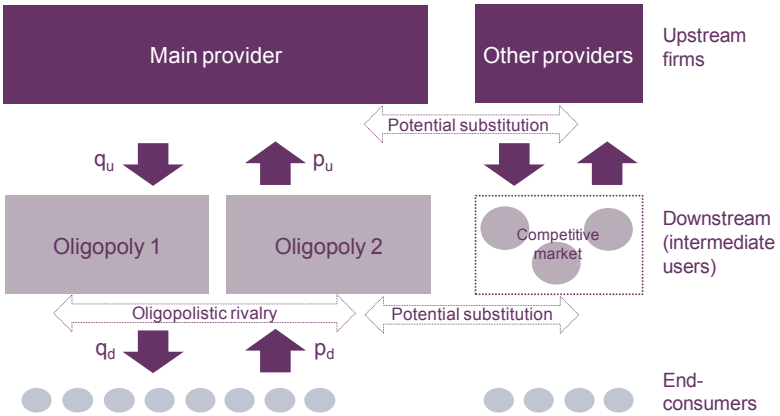
– likewise, Chen (2003)[24] suggests that retailer countervailing power does not necessarily improve economic efficiency if an upstream supplier sells to a dominant downstream retailer (that has buyer power, and can negotiate with the upstream supplier). However, where there is a competitive fringe (that does not have buyer power, and must take the list price offered by the upstream supplier), attempts by the powerful buyer to apply its buyer power mean that the upstream firm will try to sell more to the competitive fringe, by lowering its wholesale prices overall. As a result, consumers enjoy lower prices overall, but only because of the competitive fringe.

Hence, countervailing buyer power is often good for welfare, but it is the interaction between this buyer power and competition in the downstream retail market that can lead to potential welfare losses. This is indeed recognised by competition authorities (see section 3).

These concepts can be clarified through stylised illustration. Consider, for example, a case where a main upstream provider of an input sells to just a few buying firms. If this provider has market power in the input market, it can charge a price above marginal cost in selling the input to the firms downstream. However, if it has little choice but to sell to the selection of buyers in question, this limits its 'outside options' to an extent. In addition, if the buyers can credibly threaten to switch to other upstream firms to source their input in the event that the upstream firm raised prices, this would improve their own 'outside options'.

Figure 2.2 provides an illustration of a situation in which a selection of buyers downstream purchase from an upstream main provider (on the left of the figure), but have the potential to substitute to other providers of the input. This may enable the downstream buyers to bargain on the price for the upstream input (p_u). In addition, the downstream firms face rivalry from their immediate competitors, and from potential substitution to other competitors who purchase from other upstream firms. If competition overall is intense enough, the benefits of buyer power among intermediate users in securing better input price terms should also be reflected in lower end-consumer prices.

Figure 2.2 Buyer power with downstream competition



Source: Oxera.

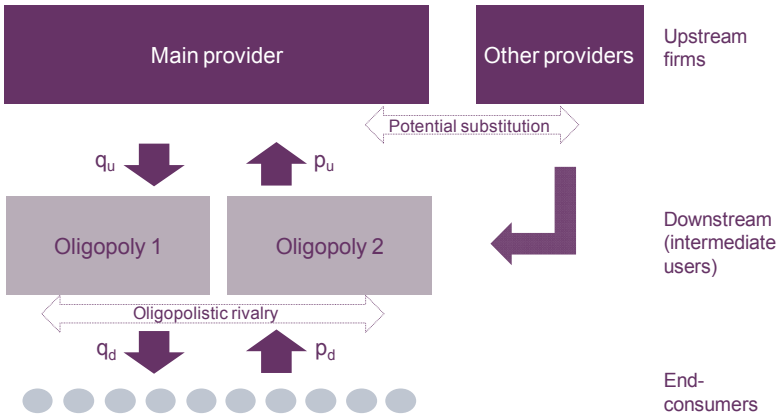
[22] von Ungern-Stemberg, T. (1996), 'Countervailing power revisited', *International Journal of Industrial Organization*, **14**, pp. 507–20.
[23] Dobson, P. W. and Waterson, M. (1997), 'Countervailing power and consumer prices', *Economic Journal*, **107**, pp. 418–30.
[24] Chen, Z. (2003), 'Dominant retailers and the countervailing power hypothesis', *RAND Journal of Economics*, **34**, pp. 612–25.

An example of this type of situation (buyer power with sufficient downstream competition) may be an airline located at a particular airport (the main provider), but which *is capable of* switching a number of its services to another airport (other providers) at reasonably short notice. At the same time, the downstream airlines in the airport concerned may compete for end-consumers (passengers) with one another and with airlines at other airports. This scenario is perhaps more likely in the case of competing regional airports that are located fairly close together, and which specialise in short-haul routes. In such a situation, a low-cost airline might threaten to switch activities to the neighbouring airport. The scenario is perhaps less likely in the case of major hub airports. In this case, airports tend to be located further away from one another, and airline and passenger demand may be locked into the airport location concerned.

In summary, therefore, where buyer power upstream is accompanied by actual or potential competition downstream, more of the benefits of buyer power that the intermediate users gain in paying lower input prices might be expected to be passed on to end-consumers. This is because there is less scope for the buyers concerned to be price-makers downstream.

This may be contrasted with another stylised situation in which there is less competition downstream, as illustrated in Figure 2.3. Here, the source of bargaining power for buyers is also a source of market power downstream. In this case, the power of buyers reduces the scope for the upstream firm to exercise its monopoly power in the input market, enabling buyers to obtain lower prices. However, since the buyers have market power in the downstream market, they may add their own mark-ups onto end-user prices. In effect, the intermediate users may not pass through the benefits of buyer power to end-consumers, and this may not therefore enhance consumer welfare.

Figure 2.3 Buyer power with downstream market power



Source: Oxera.

In assessing the effects on competition downstream, and on end-consumer welfare, other considerations also need to be taken into account. For example, if upstream firms can price-discriminate between downstream firms in offering discounts to input prices, smaller downstream firms (without buyer power) may be worse off than larger firms (with buyer power), placing the smaller firms at a disadvantage, and potentially harming downstream competition. This is known as the 'waterbed effect'. The effects of buyer power (including controversies surrounding the existence and impact of the waterbed effect) are discussed further in section 4.3.

2.4 Which framework is more appropriate for the current study?

As noted, monopsonistic power does seem to be limited to particular markets and conditions. Indeed, Doyle and Inderst (2007) recommend using the bargaining power framework—rather than monopsony—in the majority of settings.[25]

> In many settings, in particular if relatively few suppliers and buyers interact, buyer power should not be seen as the strategic withholding of demand so as to reduce a uniform wholesale price. Instead, the exercise of buyer power should be seen as leading primarily to the realization of individual discounts.

In most economic models and definitions of bargaining, the focus is on the price of an input used in production by the buyer.[26] However, it may be more realistic to think of firms negotiating over many contractual terms simultaneously, such as credit lines, investment, delivery times and the quality of service:

> buyer power gives retailers more than just the ability to extract discounts and obtain low prices from suppliers; buyer power may manifest itself in the contractual obligations that retailers may be able to place on suppliers.[27]

In the case of monopoly infrastructure providers, and in relation to the issues addressed as part of the current study, it would appear that the most relevant framework for assessing buyer power is indeed the bargaining framework, for the following main reasons.

First, in the sectors being considered for this study (airports—specifically, Schiphol Airport—and rail), the upstream firm is not 'powerless', as is assumed in the basic monopsony framework; rather, it provides an essential input and is assumed, to an extent, to have market power in the provision of its services. In the Netherlands, negotiations take place between downstream players that are (or at least assumed to be) empowered to some degree, relative to the large upstream players. This buyer power may therefore offset, to some degree, the assumed market power of the upstream firm. This was indeed the intention of the relevant pieces of regulatory legislation in the Netherlands, introduced in the two sectors.

Second, the bargaining framework is more consistent with the notion of reaching agreement on terms, rather than the imposition of terms by a buyer, and also the presence of multiple contractual terms, differentiated services, and bilateral contracts. Users in the infrastructure sectors might seek to agree not only prices, but also investment (capacity and design of infrastructure), operating costs, and quality of service (for example, through service-level agreements).

Third, as will discussed in section 3, a competition policy (antitrust) definition of *effective countervailing buyer power* in the bargaining framework is such that buyer power is enough to offset fully upstream market power—dominance or SMP. In infrastructure regulation more generally (eg, telecommunications, airports, utilities), the main context in which buyer power is discussed is in relation to the bargaining framework, rather than monopsony.

Fourth, monopsony is, at best, not welfare-improving, and, at worse, reduces welfare in both the upstream and downstream markets. Buyer power, on the other hand, has the potential to abate monopoly or market power upstream, to the ultimate benefit of end-consumers. Therefore, while it might be a policy aim (under certain circumstances) to enhance buyer power, it is not clear that it would necessarily be a policy aim to enhance monopsony power.

[25] Doyle, C. and Inderst, R. (2007), Some Economics on the Treatment of Buyer Power in Antitrust', *European Competition Law Review*, **28**, pp. 210–19.
[26] Chen (2008), op. cit.
[27] Dobson, P.W. (2005), 'Exploiting Buyer Power: Lessons from the British Grocery Trade', *Antitrust Law Journal*, **72**:2.

The above illustrations are necessarily simplistic and make a number of assumptions, but the principal lesson is that buyer power must be assessed case by case. Buyer power is driven heavily by industry structure.

The examples illustrated assume that economic regulation is not present. In some sectors, it may be that buyer power arises simply because of the characteristics inherent in the sector, and that there is no need for any form of economic regulation. In others, it may be that an economic regulator needs to intervene in some way. Indeed, the two sectors under consideration as part of the current study (airports and rail) are subject to regulation by the NMa, albeit this economic regulation is light-touch.

3 What do competition rules say about buyer power?

Buyer power is not just of academic interest, it has also been discussed in the competition policy (antitrust) literature.

In many contexts, countervailing buyer power is viewed as something that is pro-competitive. For example, the presence of buyer power downstream may mean that an upstream firm is not able to exert dominance. In addition, the presence of buyer power in the value chain may be used as a defence in merger cases. However, this is not always the case; there are examples where buyer power has been viewed as harmful—for example, one important consideration in theory is the interaction between countervailing buyer power and the intensity of downstream competition (as noted in section 2).

The competition policy literature is especially useful in explaining the prerequisites for countervailing buyer power to emerge. In the context of the current study, this is of particular relevance to the discussion in the academic literature on what conditions need to hold for buyer power to be stronger or weaker (see section 4).

It is worth noting at this stage a point on terminology. As noted, in competition policy, one issue that can be of interest is whether the buyer power of downstream firms is *strong enough* to offset the dominance of an upstream firm (dominance being a particular threshold of market power). In examining this, many policy practitioners appear to discuss 'countervailing buyer power' as being a matter of degree—and whether such power is of sufficient strength to eliminate dominance. However, other practitioners seem to discuss 'buyer power' as being a matter of degree. In this sense, countervailing buyer power might be deemed to exist if buyer power is sufficient to eliminate dominance.[28] Similar terminological considerations arise in the case of merger assessment.[29] These issues are discussed further below.

Terminological differences aside, the relevant policy question in this case is still the same: is buyer power strong enough to eliminate dominance (or, in merger cases, is it strong enough to eliminate competition concerns)?

3.1 In what types of competition law cases has buyer power been relevant?

Over the past few decades the potential benign and detrimental effects of buyer power have attracted significant attention in competition policy (or antitrust). Many regulatory authorities and several undertakings have used the notion of buyer power and its variants in a number of circumstances, most of which fall within one of the following contexts.[30]

– **Abuse of dominance by buyers**—where powerful buyers induce suppliers to grant them better terms of trade (with harmful effects on upstream and/or downstream competition); or where a powerful buyer purchases too much or bids high for a key input in order to push prices higher and damage its competitors ('overbuying')—see section 3.2.

[28] The word 'countervailing' as used in the term 'countervailing buyer power' can cause confusion. Literally, 'countervailing' means 'to offset with equal force'. Adopting this definition, countervailing buyer power might then be interpreted as buyer power of a sufficient strength to *completely* offset any upstream market power. However, market power is a matter of degree. Many economists also treat countervailing buyer power as a matter of *degree*, offsetting market power in whole *or in part*.
[29] Specifically, in the context of whether downstream buyer power is strong enough to prevent a substantial lessening of competition from occurring when two upstream firms merge.
[30] This classification is similar to that in OECD (2009), op. cit., p. 175.

– **Reducing upstream market seller power**—where buyers (downstream) are able to reduce (upstream) supplier market power by exerting a sufficient degree of countervailing buyer power. Buyers can also collectively decide to use joint purchasing agreements or bargain in order to secure better terms of trade—see section 3.3.

– **Horizontal mergers**—downstream horizontal mergers between two or more entities may increase (monopsony) buyer power, whereas the presence of important buyers downstream may exert countervailing buyer power on upstream firms that is of sufficient strength that upstream mergers are less problematic—see section 3.4.

3.2 Buyer power as a problem in abuse of dominance cases

Buyer power has been identified as a concern in some abuse of dominance cases, in the context of vertical restraints imposed by downstream buyers on upstream suppliers, and in terms of harmful 'overbuying' behaviour.

In practice, in most of these cases, buyer power is considered in a bargaining framework, in which the strength of a buyer may lead to competition problems in the upstream and/or downstream markets. While monopsony power has also been a concern for some regulatory authorities, this has been primarily in a theoretical context.[31] The Office of Fair Trading (OFT) in the UK has been generally sceptical of the role of monopsony power—through the withholding of demand—in leading to an abuse of dominance, and sets out three criteria that must all be met in order for a buyer to be able to exercise monopsony power and for this to be problematic from a competition policy perspective:

– there must be no discrimination between the price paid by downstream firms; rather, a single price for the input exists;
– there must be an upward-sloping supply curve—upstream firms will not be willing to supply more quantity for a lower or the same per-unit price;
– the buyer must have market power downstream to allow total supply of the finished good to be restricted and consumer prices to rise.[32]

The OFT's stance would appear consistent with the general message set out in section 2 above; namely, that monopsony power has limited application in practice (including in the context of the current study).[33] However, it is also of note that, the OFT has never reached an infringement decision concerning exercise of countervailing buyer power under Article 102 of the Treaty on the Functioning of the European Union (TFEU) or Chapter II of the UK Competition Act, which seek to prevent dominant firms from abusing their market position.[34]

3.2.1 Vertical restraints that lead to harmful upstream or downstream effects

In certain situations, powerful buyers (in a bargaining setting) may seek to reach agreements with upstream suppliers that could harm the viability of suppliers in the upstream market, and/or could harm competition in the downstream market.

As regard effects in the upstream market, powerful buyers might pressurise suppliers that depend on them (at least for their short-run financial viability) into providing special discounts, to transfer risk, to cover some of their fixed costs, and in general to impose ad hoc obligations while threatening to withdraw from an agreement. Under certain circumstances, this could result in upstream suppliers exiting the market or underinvesting in new capacity,

[31] For example, the Canadian Competition Bureau has been watchful for cases where a dominant buyer would lower the price of an input below the prevailing level by depressing the quantity demanded, although no such situations have emerged with respect to litigated mergers to date. OECD (2009), op. cit., p. 141.
[32] Based on a UK OFT submission to the OECD, as reported in OECD (2009), op. cit., p. 234.
[33] Monopsony theory does, however, seem to have a role in examining overbuying behaviour (see below).
[34] OECD (2009), op. cit., p. 235.

product variety and efficiency, owing to the reduction in their margins and uncertainty about future profitability.[35]

In a case from Japan, for example, a retailer (Valor Co. Ltd) was found guilty of abusing its market position by being an important buyer for the suppliers—in part, through forcing its suppliers to subsidise the fixed costs of launching a new store or refurbishing an existing one.[36]

Agreements that have the potential to lead to effects on downstream competition have received more attention. Large buyers, which also have downstream market power, may seek to use their bargaining power by reaching exclusivity agreements with upstream firms, with the intention of raising rivals' costs (RRC)—preventing downstream rivals from buying the inputs concerned, or raising the cost of buying the inputs. This can eliminate or substantially reduce downstream competition, similar to theories of vertical foreclosure.[37] For example, in 1998, the US Federal Trade Commission ordered toy retailer, Toys "R" Us Inc., to stop a number of illegal practices. As a large buyer in the market for toys, the defendant had used its position to extract agreements from toy manufacturers to stop selling a number of toys to its competitors. This could raise downstream rivals' costs and exclude them from the market. The coercive practice allowed the buyer to have monopoly power in certain types of toys in the downstream market.[38]

In Europe, the above types of case would usually be considered under Article 102 of the TFEU, which seeks to prevent dominant firms from abusing their market position. Certain agreements that are likely to be judged a restriction on trade and cause sufficient harm (in particular, in the downstream market) may fall foul of these rules.

More generally, in the absence of restrictive vertical restraints (such as a requirement for exclusivity), it is far less clear that the simple action of larger buyers with more bargaining power negotiating favourable terms, compared with their smaller downstream rivals, gives rise to competition policy concerns. However, one potential concern is the 'waterbed effect'; namely, that reduced input prices provided to a powerful buyer—that has market power in the downstream market—can lead to increased input prices to smaller buyers that compete downstream. In certain circumstances, this can lead to increased consumer prices in the downstream market and/or the exit of the smaller downstream firms.

Waterbed effects can therefore be seen as arising through an analogous mechanism to that of foreclosure (through RRC) referred to above, but indirectly, and without any vertical restraints or deliberate attempt by the firms with downstream market power to limit competition and exclude competitors.[39] The major concern for competition policy-makers is whether the waterbed effect is strong enough to force—or at least hasten—the exit of smaller downstream firms.[40] However, it is not always clear that waterbed effects arise; even where they do, it is not clear that prices to end-consumers rise, or whether smaller downstream firms are forced to exit.[41] Because of the multiplicity of outcomes that can occur, waterbed effects are discussed in more detail in section 4.

In passing, the rules in some countries go beyond those usually set out in general competition law. In Germany, the Act against Restraints of Competition (Section 20:3) prohibits buyers from causing other companies to grant them special advantages (preferential terms) without any objective justification. In Slovakia, buyers are prohibited from

[35] Competition Commission (2008), 'The supply of groceries in the UK market investigation', April, p. 6.
[36] OECD (2009), op. cit., p. 197.
[37] For example, see OFT evidence as provided in OECD (2009), op. cit., p.235.
[38] Federal Trade Commission (1998), 'FTC Upholds Charges that Toys "R" Us Induced Toy Makers to Stop Selling Desirable Toys to Warehouse Clubs', October 14th.
[39] For example, see OFT evidence as provided in OECD (2009), op. cit., p.236.
[40] Inderst, R. and Valletti, T.M. (2008), 'Buyer Power and the 'Waterbed Effect', CEIS Research Paper No. 107, January.
[41] OECD (2009), op. cit., pp.11 and 23.

levying a charge on suppliers for services (eg, placement of goods in store) that amounts to more than 3% of the annual revenues that the supplier makes by dealing with that buyer.[42]

3.2.2 Overbuying behaviour

Salop (2005) also notes that 'overbuying' involves a buyer increasing the purchases of an input to gain either monopsony power in the input market or market power in the downstream final output market.[43] As such, overbuying can have ramifications for both the suppliers and the end-consumers of the powerful buyer. Salop (2005) regards 'predatory overbuying' as raising fewer serious competition policy concerns than overbuying that involves RRC.

As Salop (2005) discusses, 'predatory overbuying' involves overbuying inputs as a predatory strategy to gain monopsony power in the input market by causing rival buyers to exit from the input market, or, at the least, leading them to reduce their capacity permanently. Here, a powerful buyer offers a high price for a key input, outbidding its rivals, with the aim of excluding a competitor buyer from accessing that input (since the supplier may not be willing to sell it at a lower price). In this way, predatory (above-cost) overbuying to achieve or maintain monopsony power in the input market is analogous to predatory (below-cost) pricing to achieve monopoly power in the output market.

In contrast, 'RRC overbuying' involves overbuying inputs as an exclusionary strategy to raise the input costs of rivals in the downstream final output market, such that the buyer concerned can gain market power in the final output market.

While, in most cases, the additional input purchases made through overbuying are used to produce output, in some cases a 'naked overbuying' strategy might be used, where an input is purchased solely to deny it to rivals, with the input subsequently discarded.

Although the theoretical basis for overbuying behaviour is robust, successful challenges by competition authorities have been rare to date, primarily because intent is hard to prove. The increase in purchases by the buyer could be driven by many reasons, such as an increase in demand for the output, more intensive use of the input in production, changes in the inventory requirements to prevent shortage, or even loss of monopsony power.[44]

3.3 Buyer power that reduces seller market power

3.3.1 Buyer power that eliminates upstream dominance or SMP

The presence of sufficient countervailing buyer power in the value chain may be used as a defence in abuse of dominance cases, whereby a firm is under investigation under competition rules. In addition, from a regulatory standpoint, the presence of sufficient countervailing buyer power may be used to conclude that a seller is unable to exert SMP (using the terminology from telecommunications), and that some form of ex ante regulation of the seller is therefore not required.

Indeed, many regulatory authorities consider buyer power to be a benign force that acts as a possible constraint on the exercise of supplier market power, and leads to better terms for agreements for the downstream firms, which can then be passed on to consumers. For example, the European Commission enforcement priority guidelines for abuse of dominance (Article 102) cases emphasise a role for the consideration of buyer power before concluding that an undertaking can be dominant:[45]

[42] OECD (2009), op. cit., p. 216.
[43] Salop, S.C. (2005), 'Anticompetitive Overbuying by Powerful Buyers', *Antitrust Law Journal*, **72**:2.
[44] For a discussion of two key overbuying cases in the USA, and contrasting views, see Kirkwood, J.B. (2008), 'Controlling above-cost predation: an alternative to Weyerhaeuser and Brooke Group', *The Antitrust Bulletin*, **53**:2, Summer; and Salop (2005), op. cit., who also discusses the Weyerhaeuser and Brooke Group cases.
[45] European Commission (2009), 'Communication from the Commission—Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings', C 45/02, para 12.

> The assessment of dominance will take into account the competitive structure of the market, and in particular the following factors: constraints imposed by the existing suppliers from, and the position on the market of, actual competitors (the market position of the dominant undertaking and its competitors); constraints imposed by the credible threat of future expansion by actual competitors or entry by potential competitors (expansion and entry); constraints imposed by the bargaining strength of the undertaking's customers (*countervailing buyer power*). [emphasis added]

After discussion on the analysis of market concentration (both current and over time), and barriers to entry (which are supply-side considerations), the power of 'customers' is considered:

> Competitive constraints may be exerted not only by actual or potential competitors but also by customers. Even an undertaking with a high market share may not be able to act to an appreciable extent independently of customers with sufficient bargaining strength. Such countervailing buying power may result from the customers' size or their commercial significance for the dominant undertaking, and their ability to switch quickly to competing suppliers, to promote new entry or to vertically integrate, and to credibly threaten to do so. If countervailing power is of a *sufficient magnitude*, it may deter or defeat an attempt by the undertaking to profitably increase prices. Buyer power may not, however, be considered a sufficiently *effective* constraint if it only ensures that a particular or limited segment of customers is shielded from the market power of the dominant undertaking.[46] [emphasis added]

As such, the guidance emphasises that, to reach a conclusion of dominance, a firm must be able to act independently of both its competitors *and* its customers. This may not be the case if countervailing buyer is present. However, this countervailing buyer power is a matter of degree, and must be sufficiently strong to eliminate dominance.

While discussion of dominance relates to firms being investigated under competition rules, the, practically identical, concept of SMP concerns whether particular firms should be subject to ex ante regulation. The term 'SMP' is fairly specific to telecommunications. The European Commission's 2002 Electronic Communications Directive Guidelines stated:

> On all of these markets, [national regulatory authorities] will intervene to impose obligations on undertakings only where the markets are considered not to be effectively competitive as a result of such undertakings being in a position *equivalent to dominance* within the meaning of Article 82 of the EC Treaty [now Article 102 TFEU]. The notion of dominance has been defined in the case-law of the Court of Justice as a position of economic strength affording an undertaking the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers. Therefore, under the new regulatory framework, in contrast with the 1998 framework, the Commission and the NRAs will rely on competition law principles and methodologies to define the markets to be regulated ex ante and to assess whether undertakings have *significant market power ('SMP')* on those markets.[47] [emphasis added]

The European Commission (2003) subsequently emphasised that national regulators in telecommunications markets would have to assess the degree of countervailing buyer power before concluding that a particular telecommunications firm holds SMP.[48] In applying this principle, Ofcom, the UK telecommunications regulator, notes that:[49]

> it is not sufficient just for the buyer to have *some CBP* but, rather, it is necessary that the buyer can exert *sufficient CBP* such that the prices charged by the seller are constrained to the competitive level. Any rate above that level would imply that the

[46] Ibid., para 18.
[47] European Commission (2002), 'Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services', C 165/6, para 5.
[48] European Commission (2003), 'On Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services', Explanatory memorandum, February.
[49] Ofcom (2006), 'Mobile Call Termination: Proposals for Consultation', September, p. 46.

> buyer's CBP is not sufficient and would therefore imply that the seller has SMP. [emphasis added]

The UK Civil Aviation Authority (CAA) adopts a similar approach. Its sector-specific powers allow it to introduce ex ante economic regulation of designated airports, and its general competition powers enable it to investigate alleged anti-competitive conduct by airports. In 2011, the CAA set out several factors of relevance to assessing market power in the context of deciding whether and how to regulate, and in undertaking investigations into alleged abuse of dominance. This includes an assessment of 'buyer power':[50]

> Buyer power exists where buyers have a strong negotiating position with their suppliers, which weakens the latter's potential market power. The CAA considers that assessing the *existence and degree* of airline buyer power may be an important aspect of an airport competition assessment and agrees with the OFT's view that 'the strength of buyers and structure of the buyers' side of the market may constrain the market power of a seller. Size is not sufficient for buyer power. *Buyer power requires the buyer to have choice.*' [emphasis added]

Importantly, the CAA refers to specific evidence that would be used to assess the degree of buyer power in the airports sector. These include the alternative airports available to airlines; the airlines' net switching costs; whether other airlines would be likely to take up airport capacity freed up by an airline that switched some or all of its operations; the importance of a given airline to the airport; and the multi-sidedness of the airport market.[51]

The more general OFT guidance on assessing market power (referred to by the CAA above) emphasises that buyer power is most commonly found in industries where buyers and suppliers negotiate, and can be thought of as the 'degree of bargaining strength' that 'weakens the potential market power of a seller'. According to the OFT, a buyer's bargaining strength (and hence its buyer power) may be enhanced if the following conditions hold:[52]

- the buyer is well informed about alternative sources of supply and could readily, at little cost, switch substantial purchases from one supplier to another while continuing to meet its (the buyer's) needs;
- the buyer could start production of the item itself, or 'sponsor' new entry by another supplier (eg, through a long-term contract) relatively quickly and without incurring substantial sunk costs;
- the buyer is an important outlet for the seller (ie, the seller would be willing to cede better terms to the buyer in order to retain the opportunity to sell to that buyer);
- the buyer can intensify competition among suppliers by establishing a procurement auction or purchasing through a competitive tender.

The OFT notes that buyer power is beneficial when there are large efficiency gains as a result of buyer pressure (or where there are otherwise lower supplier prices), and where these benefits are passed on to the end-consumer. However, it also notes that buyer power does not always lead to benefits to end-consumers. For example, where only some buyers are powerful against a supplier with market power, smaller buyers might face higher input prices, weakening downstream competition.[53] Moreover, if the buyer also has market power as a seller in the downstream market, it may not pass on lower prices to the end-consumer.[54]

What is common to the various contributions of the European Commission, Ofcom, the CAA and the OFT is that buyer power is a matter of degree. Also, a common theme is that buyer power can be used as a successful defence against an abuse of dominance, or to conclude

[50] Civil Aviation Authority (2011), 'Guidance on the assessment of airport competition: Draft Guidelines', February, p. 31.
[51] Ibid.
[52] Office of Fair Trading (2004), 'Assessment of market power: understanding competition law', OFT415, December.
[53] This appears to concern the waterbed effect, which was discussed in sections 2.3 and 3.1 above, and which is discussed further in section 4.
[54] These issues were discussed in section 2.3.

that SMP is not present, if it is of sufficient strength to eliminate the dominance/SMP concerned.

Nonetheless, there appears to be some variation in the terminology used. The European Commission and Ofcom refer to degrees of *countervailing* buyer power, which then may or may not be strong enough to eliminate dominance/SMP. In contrast, the CAA and the OFT refer to degrees of *buyer power*, in a countervailing buyer power setting, which may or may not be sufficient to eliminate dominance/SMP.[55]

For clarity, in a 2007 report for OPTA (the Netherlands communications regulator), Oxera discussed countervailing buyer power as being a matter of degree, but that *effective* countervailing buyer power occurs where this is sufficient to eliminate dominance or SMP that would otherwise exist.[56] This study is discussed further in section 5.

3.3.2 Competitive effects of buyer groups

An issue of particular interest concerns joint purchasing by parties downstream. In many instances, the establishment by downstream players of buyer groups can be pro-competitive, in generating enough buyer power against an (otherwise) dominant upstream supplier—in much the same way as that described above. However, not all buyer agreements are necessarily pro-competitive. In particular, there may be concerns regarding potentially collusive behaviour.

In the USA, buyer cartels have been treated under the Sherman Act as seller cartels.[57] Just as seller cartels seek to increase their profits by raising prices and capturing consumer surplus, buyer cartels may collude to depress the price they are paying for inputs by limiting the outside options of the sellers. From 1997 to 2006, 70 cases against buyer cartels, all involving bid rigging, were brought to court by the US Department of Justice. The buyers in these cases were colluding in order to obtain lower prices in auctions (eg, real estate).

The harm caused in bidding markets is, in effect, a reduction in competition 'for the market' among downstream bidders. The more favourable terms secured by the bidder cartel are also not necessarily passed on to end-consumers.

The European Commission has similarly examined cartel behaviour among buyers. A case of note is that of the Spanish tobacco sector. In 2004, the Commission levied fines on five companies operating in the (downstream) Spanish raw tobacco processing market for agreeing maximum delivery prices and quotas in purchasing raw tobacco from (upstream) suppliers. In this instance, the purchasing quotas were viewed by the Commission as constituting market share targets in the downstream market, restricting downstream competition.[58]

In general, therefore, buyer groups are not harmful unless they result in distortions to downstream competition. Competition authorities need to assess how the buyer groups are formed, their intention and their effect. Buyer groups can give rise to beneficial terms and efficiencies, which then can be passed on to consumers. This is more likely where buyer groups act to sufficiently constrain upstream market power that would otherwise be present, and where their activity as a buyer group does not otherwise impede competition between the downstream firms in their day-to-day core activities. However, as noted, buyer groups can be, and have been, used as a screen, in particular circumstances, for cartel behaviour—

[55] See the differences in terminology that are also apparent in merger assessment, discussed in section 3.4.
[56] Oxera (2007), 'Research on countervailing buyer power for mobile call termination: the Dutch case', prepared for OPTA, April.
[57] *United States vs. Socony-Vacuum Oil Co.*, 310 U.S. 150,223 (1940): 'Under the Sherman Act a combination formed for the purpose and with the effect of raising, depressing, fixing, pegging, stabilizing the price of a commodity in interstate or foreign commerce is illegal per se.'
[58] European Commission (2004), 'Decision relating to a proceeding under Article 81(1) of the EC Treaty, Case COMP/C.38.238/B.2, Raw Tobacco Spain', October 20th.

to restrict competition downstream in the firms' core activities, and output, which is not to the benefit of end-consumers.[59]

3.4 Buyer power and merger cases

Mergers can lead to an increase in market power, especially when the merging parties have been competing intensely for (final or intermediate) consumers. In addition, the market power that the parties will have post-merger may not be limited to the demand side of the market, but can often extend to their suppliers as well. Therefore, horizontal mergers could have ramifications for markets both upstream and downstream.

The issue of buyer power with respect to mergers has usually arisen in the following two scenarios:

– **horizontal mergers in the downstream market**—here the merger concerned reduces the number of downstream firms, and thus lessens the outside options of competitive suppliers upstream. This is more likely if upstream players operate in a competitive environment and are small relative to the downstream players. In this instance, the horizontal merger downstream might create monopsony (or oligopsony) power downstream, to the detriment of the small and powerless upstream suppliers;

– **horizontal mergers in the upstream market**—here any power of the downstream firms limits the ability of the (now combined) upstream entity to charge higher prices post-merger. This is usually used as a defence from the (upstream) merging parties involved in the case (ie, that there is enough buyer power downstream to eliminate post-merger upstream SMP or dominance).

3.4.1 Horizontal mergers downstream

A case where buyer power played a role in the final downstream merger decision involved a number of supermarkets in the UK. In 2003, following the offers made by Tesco plc, J. Sainsbury plc and Asda Group Ltd to acquire the Safeway business, the UK Competition Commission considered the increase in buyer power for each of the three undertakings. It argued that a reduction in the national retail market from four to three competitors would limit the outside options of the suppliers. Also, an increase in the acquirer's buyer power would have been likely to have led to more disadvantageous conditions for upstream markets because of the asymmetric buyer size.[60]

Another example involves the merger of insurance companies that offer health services.[61] These services are offered by physicians, who contract with the insurance companies to gain access to end-consumers with health insurance plans. In essence, the insurance companies act as buyers for the physicians' services. Mergers have therefore been challenged on the grounds that they would lead to fewer outside options for the physicians. Thus, the sellers would be likely to have to accept disadvantageous terms of contract with insurance companies in areas where the majority of patients have purchased their health plans.

Interestingly, the 2010 joint merger guidelines of the UK Competition Commission and the OFT note that if two downstream firms merge and then enjoy greater monopsony power than they did previously (when they were separate firms), this buyer power is unlikely to lead to harmful 'unilateral effects' on competition,[62] and that consumers may benefit. However, a

[59] For further discussion of these issues, see OFT (2007), 'The competitive effects of buyer groups', Economic Discussion Paper, prepared for the OFT by RBB Economics, January; and Fingleton, J. (2007), 'Buyer power', presentation to the 5th ACE Conference in Toulouse, November 30th.
[60] Competition Commission (2003), 'Safeway plc and Asda Group Limited (owned by Wal-Mart Stores Inc); Wm Morrison Supermarkets PLC; J Sainsbury plc; and Tesco plc: A report on the mergers in contemplation', September, para 2.257.
[61] For example, *United States vs. UnitedHealthGroup Inc. and PacifiCare Health Systems*, filed December 20th 2005.
[62] The term 'unilateral effects' refers to the effects on competition of the behaviour of one body behaving unilaterally to restrict competition, assuming a normal competitive response from other firms in the market. This can be contrasted to 'joint effects', which emerge from coordinated behaviour among a handful of firms in a market to restrict competition.

circumstance in which unilateral effects may arise from a merger that generates increased monopsony power is when the merged firm has *both* an incentive to lower the amount it purchases upstream to reduce the input price (demand withholding) *and* sufficient market power downstream to increase prices to its final consumers.[63]

3.4.2 Horizontal mergers upstream

As regards mergers between upstream undertakings, the UK 2010 (OFT and Competition Commission) merger guidelines note that the existence pre-merger of downstream countervailing buyer power among buyers will make a 'substantial lessening of competition' (SLC) finding 'less likely', but only if this is also likely to be maintained post-merger.

Interestingly, the guidelines seem to refer to the term 'countervailing' in two senses in the same document: That countervailing buyer power is a matter of degree, which may (or may not) rule out an SLC finding; and that buyer power is countervailing when it is strong enough to prevent an SLC.[64] Terminology issues aside, the important point from the merger guidelines is that the presence of buyer power (in a bargaining framework) can be used as a defence in merger cases when it is of sufficient strength to prevent an SLC.

The context and threshold conditions for concluding that no SLC is likely to occur are somewhat different to those for concluding that no dominance (or SMP) exists.

However, similar to the OFT conditions regarding countervailing buyer power that is strong enough to eliminate dominance (see above), the OFT/Competition Commission guidance highlights that buyer power will be stronger if the downstream firms have a choice and can credibly switch to alternative suppliers, if buyers can sponsor new entry, or if buyers can vertically integrate and enter the supplier's market. Even if buyers have no choice but to take a supplier's products, they may still be able to constrain prices by imposing costs on the supplier—for example, by refusing to buy other products produced by the supplier, or (in the case of a retailer) positioning the supplier's products in less eye-catching parts of the store. However, the size of the buyer is not, in itself, enough to generate buyer power—rather, the buyer must have the ability and incentive to pursue credibly a strategy that imposes sufficient costs on the supplier.[65]

The UK OFT has indeed used the existence of sufficient buyer power to deal with Phase I mergers. The ability of the downstream parties to use multiple sellers (or auctions) and to sponsor new entry have both, in the past, been reasons for allowing mergers upstream to proceed.[66]

In line with the principles set out in the European Commission's horizontal merger guidelines, the competition assessment of horizontal mergers allows for factors that may prevent the merging parties from acting anti-competitively.[67]

In the Netherlands, the sale in 2006 of the savoury snack manufacturer, Duyvis, to soft drink and snack manufacturer, PepsiCo, was examined by the NMa. The merger was not blocked, a key reason being the buyer power downstream of large supermarkets.[68] In this instance, the relevant bargaining power was defined as that of a customer in commercial negotiations

[63] Competition Commission and Office of Fair Trading (2010), 'Merger Assessment Guidelines', September.
[64] This can be observed from various paragraphs in the Merger Assessment Guidelines, in which the precise meaning of 'countervailing' seems to differ. Paragraph 5.518 refers to a case of 'little or no countervailing buyer power'. Paragraph 5.9.1 notes 'if all customers of the merged firm possess countervailing buyer power post-merger…an SLC is unlikely to arise'. Paragraph 5.9.4 states 'it does not necessarily follow that there will be countervailing buyer power' and 'customers' buyer power will not be sufficient to be countervailing'. Paragraph 5.9.8 notes 'for countervailing buyer power to prevent an SLC, it is not sufficient that it merely existed before the merger. It must also remain effective following the merger. To assess this, the Authorities will consider the impact of the merger on any countervailing buyer power'.
[65] Ibid.
[66] OECD (2009), op. cit., footnote 53.
[67] European Commission (2004), 'Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentration between undertakings', February 5th.
[68] NMa (2006), 'Besluit van de Raad van Bestuur van de Nederlandse Mededingingsautoriteit als bedoeld in artikel 37, eerste lid, van de Mededingingswet, Nummer 5476, Betreft zaak: PepsiCo – Duyvis', April 24th.

with a supplier, due to its size and the commercial significance to the supplier, and its ability to switch to other suppliers. Here, customers in the retail market for the snack products concerned were highly concentrated (over 90% of the parties' snack products were sold to five large and sophisticated customers, consisting of supermarkets or grocery-buying groups).

While important to the suppliers, the supermarkets were much less dependent on the snack products supplied by the merging parties (the products represented up to 1% of the supermarkets' sales). The supermarkets also used 'multiple sourcing strategies', to avoid dependence on any one supplier, and had launched own-label products in competition with those of the merging parties. Furthermore, the supermarkets could discipline suppliers by credibly threatening to alter promotional activity, assign less attractive shelf space, or even de-list products. The NMa concluded that, given the size and importance of the supermarkets, their sophistication, the multiple sourcing strategies adopted, and the opportunities for disciplining producers, a 'significant degree' of countervailing buyer power existed.

This can be contrasted to another merger case in the Netherlands: the proposed acquisition in 2010 by Nordic Capital Fund of Handicare, a producer of powered wheelchairs.[69] The NMa launched an investigation because Nordic Capital Fund had a holding in powered-wheelchair manufacturer, Permobil. In this instance, the NMa concluded that the intended transaction would be harmful to competition in the Dutch powered-wheelchair market. Based on the combined market shares that would result, it was 'very likely' that the proposed merger would 'significantly' hinder competition. The NMa then examined, among other matters, the extent to which dealers downstream in powered wheelchairs had countervailing buyer power. The seven largest dealerships collectively represented approximately 80% of the total demand for powered wheelchairs in the Netherlands, and the two largest around 50%.

The issues examined in relation to buyer power were the feasibility of switching to other suppliers, the credible threat of vertical integration (or supporting entry in the market for the production and sale of new-powered wheelchairs), and refusing to buy other products produced by the manufacturers. Buyer power was judged to be 'limited', however. The high combined market share that the merged entity would have in supplying powered wheelchairs was judged as restricting the alternatives from which dealers could choose. Unlike the merging parties, the smaller manufacturers did not produce the full range of wheelchairs. There was also little evidence that dealers based in the Netherlands intended to vertically integrate and become active as producers of powered wheelchairs. It was also concluded that the ability of dealers to purchase other products produced by the parties was restricted.

Elsewhere, decisions on mergers between rail freight firms have addressed whether buyer power, or potential market entry by third parties, could offset the merging parties' ability to abuse market power upstream.[70] Rail freight products are often purchased by a small group of buyers, who are both well informed and highly concentrated. In *Deutsche Bahn/Transfesa*, the European Commission concluded that car manufacturers had some bargaining power over their finished vehicle collection providers.[71] The former could easily switch to road and/or move capacity to other providers in the case of a price increase. The fact that the EEA market for finished vehicle collection by rail was characterised by a limited number of customers—with very specific needs and know-how in logistics—motivated the Commission's decision to conclude that the merger would not lead to an SLC.

[69] NMa (2010), 'Besluit van de Raad van Bestuur van de Nederlandse Mededingingsautoriteit als bedoeld in artikel 41 van de Mededingingswet, Nummer 6900/239, Betreft zaak: Nordic Capital – Handicare', December 10th.

[70] Pilsbury, S. and Meaney, A. (2009), 'Are horizontal mergers and vertical integration a problem?', OECD discussion paper no. 2009-4, February.

[71] *Deutsche Bahn/Transfesa*, COMP/M.4786, March 18th 2008.

3.5 Summary of key messages

The competition policy (antitrust) literature illustrates that buyer power is not just of academic interest. The guidelines set out by various regulators for assessing the degree of buyer power, and the various real-life competition cases that have been examined, provide valuable lessons for the current study.

Key observations are as follows.

- Buyer power may be a good or bad thing depending on context. In many contexts, countervailing buyer power is viewed in competition policy as something that is pro-competitive.[72]
- The competition policy literature is particularly useful in explaining the prerequisites for buyer power to emerge, and its effects.
- Most of the competition cases concerning buyer power fall into one of the following contexts:
  - buyer power as an abuse of dominance (where downstream bargaining power may harm competition upstream or downstream, through the use of restrictive vertical agreements; or, much more controversially, where uneven bargaining may give rise to waterbed effects that result in higher consumer prices and/or the exit of downstream firms);
  - downstream buyer power that reduces upstream seller power (in particular, in a bargaining power framework, countervailing buyer power may be strong enough to eliminate upstream dominance or SMP, as might the effect of buyer groups);
  - horizontal mergers between downstream parties (which may increase monopsony power); or mergers between upstream parties (in which the countervailing buyer power of downstream firms may limit the ability of the merged upstream entity from raising prices post-merger);
- Of the above, a key piece of literature to the current study is that concerning downstream buyer power that reduces upstream seller power:
  - guidance notes issued by a number of regulatory bodies (including the European Commission) acknowledge that the bargaining power of downstream firms can reduce the market power of an (upstream) firm. While there appear to be differences in terminology, the key issue for policy is whether, in the bargaining framework, buyer power is strong enough to eliminate the upstream dominance (or SMP) that might otherwise exist. Using terminology previously used by Oxera, this situation can be referred to as one in which there exists *effective* countervailing buyer power;
  - the size of downstream buyers alone, and their importance to the seller, is not enough to generate effective countervailing buyer power. Rather, buyers must be well informed and have a credible outside option to bypass the seller, at fairly short notice and without incurring significant costs (examples discussed have included airlines, rail freight and supermarkets);

[72] See, for example, the European Commission guidance, statements by the UK CAA and the OFT, and the PepsiCo/Duyvis and Deutsche Bahn/Transfesa decisions.

  - effective countervailing buyer power may arise through the ability of downstream firms to credibly threaten to switch quickly to competing suppliers, promote new entry or otherwise intensify upstream competition, or vertically integrate;

  - effective countervailing buyer power could be of most benefit where it results in downward pressure on upstream prices, with these benefits passed on to end-consumers. However, regulators acknowledge that buyer power may not always benefit end-consumers, for example if bargaining power among downstream firms is uneven (which, in turn, may weaken downstream competition, through waterbed effects) and/or if buyers have market power in the downstream product market.

- The second important piece of literature concerns cases where the presence of sufficient downstream countervailing buyer power makes it more likely that an upstream merger will be allowed to proceed (since, in such a case, the upstream firm cannot raise its prices post-merger, with the result that there is no SLC post-merger).

  - The considerations in merger cases for assessing whether sufficient countervailing buyer power is likely to be present, such that there is no SLC, are very similar to those in abuse of dominance and SMP cases (see above).

  - The context and threshold conditions for concluding that no dominance (or SMP) exists are somewhat different to those for concluding that no SLC exists. Nonetheless, in the case of a merger, countervailing buyer power could be regarded as *effective* if buyer power is sufficient to prevent an SLC, and where this strength of buyer power is likely to be maintained post-merger.

  - Buyer power has been examined in numerous merger cases (for example, in supermarkets, mobility equipment, rail freight)—in particular, the case of supermarkets reveals the importance of outside options for buyers (to bypass the seller) in generating buyer power.

- The antitrust literature demonstrates that whether buyer power is present ultimately depends on the structure of the market concerned, in so far as this influences the ability of the buyers to bypass the seller at reasonably short notice (see, in particular, the specific guidance and cases reviewed in sections 3.3 and 3.4).

4 Causes and consequences of buyer power

Building on the preceding sections, the academic literature on the causes and consequences of buyer power is explored in more detail below. The focus here is on buyer power in a bargaining framework.

As noted in section 3, for clarity over terminology, the term (countervailing) buyer power is used to describe the spectrum of buyer power that may be present in the bargaining framework. The term effective countervailing buyer power is used more specifically to describe a situation where any buyer power present is sufficient to eliminate upstream dominance (or SMP) that would otherwise exist.

A core factor in a bargaining framework is the parties' outside options. As noted in section 2, it is the threat of what would happen in not reaching agreement that acts as the main force towards agreement. Therefore, identifying the parties' options, in any given market structure, will allow the degree of the buyer power that downstream firms can exert on upstream suppliers to be evaluated and, indeed, whether this is likely to constitute effective countervailing buyer power.

4.1 What influences the outcome of bargaining?

The parties' ability to substitute away their demand (in the case of buyers) or supply (in the case of sellers), and their willingness to pursue this option, is critical for the outcome from the bargaining process. The factors that determine the outcome of these negotiations can be grouped into three general categories:

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

Primarily due to simplicity, most of the literature is involved with bargaining on input prices. Therefore, most of what follows is set out on this basis; nevertheless, it can be generalised to other terms in agreements. In addition, favourable input prices for one buyer might, under certain conditions, mean favourable input prices for other buyers, and this may also hold for quality and investment.

However, if downstream bargaining strength is unevenly spread, and upstream firms are free to discriminate, waterbed (or quasi-waterbed) effects may emerge, in which the price terms offered (or quality or investment terms) favour some downstream firms at the expense of others.

Structural features in the market will have a key impact on the presence or otherwise of bargaining power. However, there can also be a role for a sector regulator to affect the outside options available to buyers and sellers of an input, and to determine bargaining effectiveness.[73]

4.1.1 What affects the buyer's outside options?

The following factors affect the value of the buyer's outside options and, consequently, its bargaining power.

[73] This issue is explained further in section 5.

– **Size of the buyer**[74]—the larger the absolute size of the buyer's revenue or profit, the greater its bargaining power:

  – the threat of sponsoring upstream entry (through loans, lump-sum payments, long-term contracts, etc) is more credible;
  – the threat of integrating backwards and self-producing the input is more realistic;
  – it is easier to spread switching costs per quantity produced;
  – investment in information regarding alternatives is more feasible;
  – there is a greater ability to employ more experienced negotiators or to use sophisticated procurement methods.

  However, size can also be a disadvantage. When a buyer deals with a supplier that produces upstream with significant economies of scale (as, for example, might be the case in natural monopolies), the large size of the downstream firm may act as a disadvantage. This is because, were the buyer to switch production to several smaller providers, it would lose the benefit of the lower average input costs stemming from the seller's declining cost function. This may be the case if the seller has invested in large sunk costs to use the facility offered by the upstream firm. Size can mean that, to a large extent, the buyer is locked into the relationship with their current supplier.

– **Alternative suppliers**—a chief determinant of a buyer's bargaining power is the ability to switch to alternative suppliers. A number of questions need to be addressed to assess the appropriateness of substitute supply routes.

  – Can other suppliers resume effectively (eg, is the input of similar quality) and in a timely fashion (even part of) the trading relationship (eg, a large investment in logistics acts against the buyer's power)?

  – Is the buyer well informed about alternative sources of supply?

  – Is the buyer trading with other suppliers at the moment (multiple sourcing) that will allow the buyer to avoid new sunk and switching costs?

– **Consumers' substitutability patterns**—if consumers regard the service/product sold by the supplier (or the end-product eventually produced by the buyer) as an 'essential purchase', they will substitute retailers rather than alternatives within the retailer. A common example is a large supermarket that sells thousands of products. Although the direct revenue share of any one product might be negligible, if the retailer discontinued it, consumers might shift to other retailers, thereby significantly affecting the former's revenues. The more the product is a key purchase or 'must have' for consumers, the less power the buyer has.

4.1.2 What affects sellers' outside options?

The literature indicates that the following factors influence the outside options available to sellers, and hence their relative bargaining power.

– **Market downstream**—if negotiations fail with the current buyer, the alternatives available to the supplier matter for the balance of bargaining power. The following would need to be taken into account when quantifying the seller's alternatives:

  – the importance of the current buyer to the supplier for selling the product in the downstream market;
  – how many competitors the buyer has and their size (competition downstream);
  – the barriers to entry for competitors (potential competition downstream);
  – the alternative uses for the supplier's service (in other markets);

[74] See OECD (2009), op. cit.

  - the time horizon—the speed with which the supplier can find an alternative buyer;
  - the switching costs involved (in terms of time and money) in seeking out and contracting with another buyer.

- **Investments and 'hold-up'**—suppliers usually invest in infrastructure or improvements in order to offer better service and increase capacity. If the investment is better (or only) suited to a particular buyer (eg, better landing equipment for a carrier's aircrafts), the supplier has weaker bargaining power over any renegotiations.[75] In the absence of co-investment or longer-term obligations, the supplier power is more limited. In other words there are high switching costs for the upstream firms (in terms of limiting the returns to the investment).

- **Cost function of the supplier**—when an upstream firm's production is characterised by economies of scale, losing volume from a large buyer will have a disproportionate impact on the average cost per unit of output, which rises. As a result, the competitiveness of the upstream firm can deteriorate. In essence, economies of scale would make an upstream firm more dependent on large buyers.

- **Buyer groups**—when buyers decide to bargain collectively (or this is imposed through regulation), they reduce the outside options, and thus the bargaining power, of the upstream suppliers. Buyer groups may, however, also lead to delays in reaching agreements due to the heterogeneity of buyers, or lead to outcomes that are more suited to the larger buyers. As noted in section 3, in certain situations buyer groups might aid explicit or tacit collusion, and the ability of customer groups to act collectively to agree pricing terms with suppliers may be constrained by anti-collusion provisions in general competition law.

- **Financial situation and short-run obligations**—if the supplier is dependent on the buyer's business for its short-term viability and/or is in financial distress, its bargaining power is limited. On the other hand, a large supplier with sufficient financial resources can sponsor entry in its available downstream market (for example, airports might help airlines with marketing and relocation expenditure).

4.1.3 Bargaining effectiveness and other considerations

A number of factors will affect the degree of bargaining effectiveness, and there are interactions between these factors and the outside options discussed above.

- **Ability to delay payments ex post**—if the buyer can (or is allowed to by the regulator) delay payments and the supplier cannot retaliate effectively in the short term, this increases the buyer's bargaining power.

- **Cost of making concessions**—if it is costly for a supplier to make concessions (because its hands are in effect tied), it can hold greater bargaining power against single parties.[76] For example, a firm that offers a 'secret' discount to one buyer may find this costly if it has to publish this information and then also offer the discount to all users. Indeed, this may be required by a regulator under non-discrimination requirements, to limit uneven bargaining and potential waterbed effects.[77]

- **Cost of bargaining**—lengthy bargaining can disrupt operating activities (eg, litigation can freeze relationships between companies), take up resources (eg, use of negotiators), and increase uncertainty (eg, with respect to the future costs of the company). The less patient party has a disadvantage.[78] There is also the monetary cost: since bargaining resources are not highly correlated with size, parties that are smaller in

[75] Holmstrom, B. and Roberts, J. (1999), 'The Boundaries of the Firm Revisited', *Journal of Economic Perspectives*, **12**:4.
[76] OECD (2009), op. cit.
[77] Uneven bargaining and waterbed effects are discussed in section 4.2 below.
[78] Holmstrom and Roberts (1999), op. cit.

terms of revenue and/or profit might find negotiations relatively more costly and disruptive.

– **Ex post adjustment of contractual terms**[79]—the right (potentially granted by a regulator) to adjust on behalf of buyers some of the contractual terms after contracting, trading or investment may reduce incentives for the supplier to behave opportunistically. In effect, even after a deal has been struck, if it turns out to be unsatisfactory to buyers, there are further outside options available to the buyers. Working backwards, this should affect the behaviour of the seller to propose more favourable terms to buyers in the first instance.

– **The ability to keep concessions secret**[80]—if the bargaining and/or any final agreements reached are kept from other downstream firms, this leads to faster agreement and better outcomes for the downstream party that faces higher competition in its market (since this translates to a relative advantage). However, concessions that benefit some parties and not others can also lead to uneven bargaining and even waterbed effects, in which smaller players are placed at a competitive disadvantage in the downstream end-product market.

– **Information asymmetry**[81]—bargaining models suggest that private information held by a seller (or buyer) allows the seller (or buyer) to have an advantage in negotiations. In a non-regulated setting, uncertainty among buyers of the seller's outside options, or lack of awareness among buyers of their own outside options, generally enables sellers to obtain better terms. In a regulated setting, a regulator can inform buyers, and assist the bargaining procedure for buyers, by requiring the seller to submit information about its costs, efficiency and profitability. In effect, such 'transparency obligations' can stimulate information provision to buyers in a digestible and timely fashion, so that they can assess whether the seller's proposed offerings are 'reasonable' before reaching agreement with the seller. The regulator may also have powers to determine reasonableness of the terms offered (eg, in terms of whether proposals are cost-oriented or efficient).[82]

– **Discriminatory versus uniform prices**—firms can secure either individual terms of agreement through bilateral bargaining or uniform ones through collective negotiations with other buyers. The role for the regulator can be important here, since it can impose a requirement for transparent and collective negotiations. Apart from the potential benefits (outlined in 'buyer groups' in section 3.3 above), the literature is inconclusive about the general effect.[83] Despite this, a requirement for uniform prices could help ensure that, where uneven bargaining is present, the terms that a more powerful buyer is able to secure will also benefit smaller buyers.

– **Multi-sided markets**. It has been recognised that, in some markets, the profitability of a firm is related to its share in another market, and can thus have implications for its bargaining position. For example, when a large number of consumers have a preference for a particular airline, and are therefore willing to change airports, the airline will have a bargaining advantage. A possible relocation of the airline would have a negative impact

[79] Doyle and Inderst (2007), op. cit.
[80] Kirkwood, J. (2005), 'Buyer Power and Exclusionary Conduct: Should Brooke Group Set the Standards for Buyer-Induced Price Discrimination and Predatory Bidding?', *Antitrust Law Journal*, **72**.
[81] See, for example, Holmstrom and Roberts (1999), op. cit.
[82] As will be discussed later in sections 5 and 6, however, transparency obligations serve a variety of regulatory purposes beyond just increasing buyer power.
[83] See, for example, Inderst, R. and Mazzarotto, N. (2008), 'Buyer Power in Distribution', chapter in W.D. Collins (ed), *Antitrust Section Handbook, Issues in Competition Law and Policy,* ABA.

on the rent being charged by that airport to retail shops or parking space owing to the potential loss in passenger traffic.[84]

The above are the main factors identified in the literature that affect the bargaining process between a supplier and its buyer(s). Some of them are more important than others, and the direction in which they act can also vary, as per the discussion above on securing secret concessions and on discriminatory versus uniform prices. The factors also act in combination, rather than individually, making it difficult to use a single measure of the degree of buyer power. It is the combined effect of the factors that a regulator needs to consider when assessing the strength of bargaining power. For example, even if the buyer's revenue is a large proportion of that of the seller, this does not necessarily mean that the latter has little bargaining power. The supplier might be providing the buyer with a key input (such as infrastructure) in its activities that is not replaceable. In addition, the buyer may have few competing outside options to switch to.

Some of the above factors are also more important than others depending on the context in question. It is therefore crucial to consider every instance of buyer power on a case-by-case basis, taking into account how the combination of factors may affect the bargaining outcome.

In addition, a buyer's power might have an effect on competition among its suppliers, upstream market structure, investment and innovation. Its power might affect the viability of firms, reinforce their market position, or influence their investment incentives. A strong buyer may even have an impact on entry and exit decisions. It is apparent that the exercise of buyer power can have complex effects with different ramifications for end-consumers. Therefore, a review of what the literature says about the effects of buyer power is an important next step.

4.2 The effects of (countervailing) buyer power

Both the regulatory and competition policy (antitrust) literature agree that buyer power is not a panacea in itself and does not necessarily enhance welfare or increase consumer surplus. However, as noted in sections 2 and 3, buyer power is generally deemed to be pro-competitive across a broad range of settings.

This section first recaps on what the theoretical literature says on how downstream competition affects the degree to which powerful buyers will pass through to end-consumers the input price reductions that they receive. This is followed by a discussion of what might happen under uneven bargaining, in which different buyers are charged different input prices according to their buyer strength. In particular, this includes discussion of the somewhat contentious issue of the waterbed effect.

4.2.1 Downstream competition and pass-through

Section 2 presented some stylised examples of what happens under uniform wholesale prices (ie, all downstream firms face the same input prices) when an otherwise dominant upstream supplier is faced with downstream buyers that have buyer power.

It was noted that 'consumers are more likely to benefit from (countervailing) buyer power and consequently welfare is more likely to improve when there is intense competition in the downstream market'.[85] If downstream retail competition is intense enough, the power that buyers may enjoy translates into lower retail prices for consumers—ie, there is full pass-through of the benefits of buyer power. However, if competition downstream of intermediate users is weak, pass-through of the benefits of buyer power to end-users will similarly be weak. Buyer power becomes an exercise in rent sharing between the upstream supplier's

[84] Civil Aviation Authority (2011), 'Preparing for a more competitive airports sector: Guidance on the assessment of airport competition', Draft Guidelines, February.
[85] Chen (2007), op. cit. The literature reviewed by the author was discussed in section 2.

market power and the market power of the intermediate users. End-users may benefit to only a limited degree.

4.2.2 Downstream competition and the waterbed effect

Retailer buyer power does not, however, necessarily improve outcomes for end-users if bargaining is uneven, where some buyers are powerful and others weak and where an upstream supplier is willing and able to price-discriminate between these buyers (ie, when input prices are not uniform).

Section 3.2 noted a particular concern that has received attention—the waterbed effect—which can arise as a consequence of uneven bargaining. Here, it is assumed that, through some mechanism, discounts to input prices negotiated by more powerful buyers—which also have market power downstream—*translate* into higher input prices for smaller buyers that compete downstream. This places smaller buyers at a competitive disadvantage, since their larger competitors have negotiated a discount, while the smaller buyers must themselves pay a premium.[86]

In the short term (under certain assumptions), the waterbed effect may cause the smaller firms to raise their prices downstream and for overall prices to consumers also to rise. In the longer term, smaller downstream firms may exit the market, further lessening competition.[87] However, as will be discussed below, the waterbed effect may not occur and, even if it does, may not necessarily lead to increased consumer prices in the downstream market in the short term, or the exit of firms from the market (downstream or upstream) in the longer term.[88]

Three key observations from the literature are as follows:

– **waterbed effects do not always occur**—in a case where larger buyers negotiate preferential discounts, but smaller buyers do not face increased input prices, end-consumers will generally face lower prices overall in the short run, although there could still be concerns if smaller buyers are forced to exit in the long run. Whether a significant waterbed effect then also occurs, in which decreased input prices offered to powerful buyers mean increased input prices for less powerful buyers, depends on the situation at hand;

– **waterbed effects may not be harmful to competition and consumers**—even if the waterbed effect is present, whether end-consumers are worse off as a consequence (in the form of higher consumer prices in the short term, and potentially through the exit of weaker buyers and/or impacts on upstream competition in the longer term) depends even more crucially on the situation and the modelling assumptions;

– **'anti-waterbed effect' strategies may be present**—smaller buyers and upstream firms may in any case adopt strategies that prevent, or mitigate to some extent, the waterbed effect.

As a starting point, in relation to the first of the above bullets, consider a case where a large buyer competing with smaller buyers in the downstream market is able to negotiate a reduction in its input price. Assume also that the input prices faced by its downstream rivals remain unchanged—ie, no waterbed effect occurs.[89] If the downstream market is sufficiently (though imperfectly) competitive, the larger buyer would pass on the benefits to end-consumers, to some degree, by reducing its downstream prices. In turn, this would force its downstream rivals to lower their prices. In the short run, therefore, in the absence of the

[86] This is a form of raising rivals' costs (RRC), as discussed in section 3.2.
[87] See OECD (2009), op. cit., pp. 11 and 23, and Dobson, P.W. and Inderst, R. (2007), 'Differential Buyer Power and the Waterbed Effect: Do Strong Buyers Benefit or Harm Consumers?', *European Competition Law Review*, **28**:7, pp. 393–400.
[88] OECD (2009), op. cit.
[89] See, for example, the description of this case provided in Dobson and Inderst (2007), op. cit.

waterbed effect, end-consumers should benefit from uneven buyer power, as there would be lower average downstream prices. This does, however, assume that downstream rivals already enjoy a sufficient margin and can reduce their prices while remaining financially viable. If competitors' profits are squeezed too much, they may be forced to exit the market. This could result in higher prices for consumers in the longer term, as the stronger buyer enjoys increased market power in the downstream market. Entry may not erode this market power if entrants face entry costs while the discounts to the stronger buyer act as an additional barrier to entry.

On balance, consumers would face lower prices overall in the short term from uneven buyer power, but this would need to be weighed up against any potential increases in prices, stemming from exit, in the longer term.

However, the scenario outlined above ignores the waterbed effect. The waterbed effect is not a concern per se. The action of the more powerful buyer lowering its downstream prices benefits consumers, and can lead to its smaller downstream rivals (that are in imperfect competition with the larger firm) being forced to lower their own prices—even in the face of higher input prices than before. The outcome can still be lower average prices to end-consumers.

The waterbed effect is of more concern when this causes harm to the competitive process and increased consumer prices overall. This may occur if smaller downstream firms are forced to raise their prices due to higher input costs, and when this also results in higher average prices to consumers overall (harm caused by a static waterbed effect). The effect will be of most concern when it forces the exit of firms in the downstream market and/or leads to increased concentration in the upstream market over time, resulting in higher prices downstream in the longer term (harm caused by a dynamic waterbed effect).

Inderst and Valletti (2008) present a particular theoretical model that focuses on the static waterbed effect (ie, it does not rely on upstream or downstream exit by firms).[90] The intuition is that, when a large buyer negotiates a discount to its input price, this enables it to reduce its downstream price and sell more of its product. Some of this increase in quantity will come at the expense of the firm's smaller downstream rivals. This being the case, the input prices for the smaller firms may then rise due to a combination of two factors:[91]

– in so far as bargaining power is related to firm size, as the powerful buyer increases its market share relative to others, the latter's bargaining power with suppliers may decrease, forcing them to accept worse terms of agreement;[92]
– if there are economies of scale in the upstream market (due to the presence of fixed costs), if weaker buyers demand less because their margins have been squeezed, they might then enjoy smaller quantity discounts from the upstream firm.[93]

Inderst and Valletti (2008) illustrate that, in their model, this waterbed effect would be expected to be strongest—and cause harm through higher average downstream prices—the more that buyer size affects input prices, and the more that the growth of a buyer is at the expense of its downstream rivals (as opposed to market expansion). In turn, this is more likely when the input prices of smaller and larger buyers are already substantially different to begin with, and where the downstream market share of smaller buyers is already being squeezed.

In addition, there may be a dynamic waterbed effect, in which weaker buyers are forced to exit the downstream market. This might reinforce the above shorter-term waterbed effect, further harming the process of downstream competition and pushing up end-consumer

[90] The model assumes 'Hotelling' competition between downstream firms that compete imperfectly and serve local sub-markets.
[91] Dobson and Inderst (2007), op. cit; and Inderst and Valletti (2008), op. cit.
[92] Inderst and Valletti (2008), op. cit.
[93] Majumdar, A. (2005), 'Waterbed Effects and Buyer Mergers', Centre for Competition Policy Working Paper, 05-07.

prices.[94] There may also be adverse dynamic effects on upstream competition if the input prices secured by the powerful buyer squeeze upstream supplier margins enough to cause some suppliers to exit. This can then push up the input prices that smaller buyers face.[95]

Nonetheless, much of the above work on the waterbed effect is theoretical rather than empirical. The extent of (any) waterbed effect, and its impact on final consumer prices, depends critically on the model assumptions adopted. Waterbed effects are therefore somewhat controversial.

The OFT, for example, notes that a range of outcomes are generally possible, depending in part on the nature of downstream competition. Regarding static effects, if the firms facing higher input costs previously constrained the pricing of those facing lower input costs, the final market price might rise; however, if the firms facing lower input costs constrain each other, their final prices will go down (and the effect on overall downstream prices will be ambiguous). Over time, there could still be negative dynamic effects on competition, in which the input price differential leads to the exit of some downstream retailers, or a worsening of their offer, but again this depends on the situation.[96]

Finally, smaller buyers can adopt strategies to counteract uneven bargaining, and hence the waterbed effect.[97] When discounts are not private between the parties, smaller retailers might seek to follow the lead of the larger firm and push for similar discounts—a 'me too' effect. By learning about others' discounts, and so reducing asymmetry of information, smaller firms may be able to obtain the same discounts (see 'bargaining effectiveness' in section 4.1 above). By proxy, regulators might also place requirements on upstream firms to offer discounts secured by larger buyers to all downstream buyers. Smaller downstream firms might also be able to form buyer groups and aggregate their demand in order to press for discounts. An upstream firm may also have an interest in offering discounts secured by larger buyers to smaller buyers, so as to maintain long-term competition in the downstream market and ensure that the larger buyer's bargaining power does not become even stronger over the longer term.[98]

4.3 Summary of key messages

Treating buyer power in a wider bargaining framework has allowed factors to be identified that affect its absolute and relative magnitude, and its effects.

Important observations are as follows.

– 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; and bargaining effectiveness. With respect to the importance of the outside options of both seller and buyer, the academic literature on bargaining is in line with the market analysis approach of anti-trust, although perhaps the academic literature on bargaining is more explicit. The items listed under bargaining effectiveness are also somewhat 'new' to the commonly used market analysis framework of antitrust.

– Buyers have more bargaining power if they have more outside options. The main determinants of their outside options are their size, ability to substitute quickly to alternative suppliers, and the nature of end-consumers' substitutability patterns.

[94] Dobson and Inderst (2007), op. cit.
[95] See, for example, Majumdar (2005), op. cit.
[96] See the UK OFT's submission to the OECD, as reported in OECD (2009), op. cit., p. 236.
[97] Dobson and Inderst (2007), op. cit., refer to these types of strategy as 'anti-waterbed' effects. OECD (2009), op. cit. also discuss factors that counteract the waterbed effect.
[98] On the issue of the upstream firm seeking to maintain competition in the downstream market, there are similarities to the analysis of Chen (2003), op. cit., as discussed in section 2.3.

– Buyer power is, in contrast, reduced if sellers have a number of outside options. The main determinants of sellers' outside options are the presence of alternative buyers to contract with, the specificity of investment by the seller to particular buyers, the sellers' cost function, the presence or absence of buyer groups, and the short-run cash-flow dependency of the seller on their current buyers.

– Bargaining effectiveness is important in determining the outcomes of bargaining, both in itself and in terms of influencing the above respective outside options of the buyers and seller(s). Factors determining the effectiveness of bargaining as a process include the ability of the buyer to withhold payments from the seller, the transactional costs of bargaining, the degree to which parties can credibly commit to strategies aimed at boosting their bargaining power (by 'tying their hands'), information asymmetries regarding the outside options of the other trading party, and the ability to keep concessions secret.

– The type of competition in the downstream market is crucial for the level of the pass-through of the benefits of buyer power. More intense downstream competition between similar sellers leads to higher pass-through of benefits secured through buyer power upstream (as noted also in section 2). Conversely, less intense competition between intermediate users can result in de facto rent sharing between the upstream supplier and its buyers, with consumers no better off.

– Buyer power does not necessarily improve economic efficiency if bargaining is uneven and an upstream supplier is able to price-discriminate between buyers—in particular, if the waterbed effect arises. In the short term, consumers may enjoy lower prices, but prices may also increase under certain circumstances. Over time, downstream competition (and hence consumers) may be further harmed through the exit of smaller firms. However, as noted in this section, the presence and strength of the waterbed effect depends on the situation at hand. Even if the effect occurs, prices to end-consumers may not rise if smaller firms do not raise their prices and, in the longer term, are not forced to exit the market; or if larger buyers (which are able to secure discounts) constrain one another in the downstream market.

5 Buyer power and economic regulation

This section outlines the regulatory context for considering buyer power, and is split into three parts.

– **Section 5.1 provides the regulatory context**—an overview of why buyer power is relevant to economic regulation of infrastructure services is first provided. It is important that buyer power is viewed in the overall context of what economic regulators of infrastructure services might seek to achieve. There are a number of market failures in regulating utilities, and the role of buyer power—and its desirability or otherwise—needs to be seen in this light.

– **Section 5.2 then reformulates the issue**—it considers more broadly why, from an economic regulation perspective, improving the scope for consultation and negotiation is important.

– **Section 5.3 outlines some international regulatory case studies**—these consider the interaction between buyer power, consultation and negotiation, and the forms of regulation adopted. The case of effective countervailing buyer power in the Dutch telecommunications sector is considered (in an SMP context). Following this, the interaction in practice between specific forms of economic regulation, user consultation and negotiation, and factors that have helped or hindered buyer power, are taken into account. This includes lessons from the UK, USA and New Zealand. The case studies provide valuable additional lessons that might be used to assess buyer power and its effects in the two sectors in the Netherlands being considered by this study.

– **Section 5.4 then draws together the lessons from these case studies**—before moving on in section 6 to suggest a framework to analyse the rail and aviation sectors in the Netherlands.

5.1 Why is buyer power important to economic regulation?

In regulating infrastructure sectors, the hypothesis that an improved consultation and negotiation regime would generate buyer power (and potentially effective countervailing buyer power), with efficiency benefits for society—as envisaged in the sector legislation—arguably rests on three key assumptions:

1) a well-functioning consult/negotiate process will help to create or enhance buyer power (section 5.1.1);

2) this buyer power will limit the ability of the upstream monopoly provider to exercise its market power—leading to better outcomes for both intermediate users and their end-consumers in terms of reduced margins, costs, and prices; better quality; and greater innovation (sections 5.1.2 and 5.1.3);

3) the negotiation process can then be relied on to generate buyer power, rather than using more detailed regulation, such as ex ante price regulation (section 5.1.4).

Given the preceding analysis, and what economic regulation might seek to achieve, these assumptions are discussed below. The discussion concludes with a potential 'reformulation' of what regulation might seek to achieve in practice, placing buyer power in context.

5.1.1 Will a well-functioning consult/negotiate process create or enhance buyer power?

As suggested in 1) above, in each case where the regulatory frameworks were first introduced into the two respective transportation sectors in the Netherlands, the legislator expected that the legal requirement for upstream infrastructure providers to undertake an annual consult/negotiate process would increase buyer power. Specifically, the requirement would encourage (or even force) upstream infrastructure providers to engage with downstream intermediate users on their proposals, and would increase the transparency of the proposals being put forward by the upstream providers (for example, in relation to prices, CAPEX, and service levels) and provide an opportunity for challenge. In short, increased buyer power would emerge from the combination of incentives (or requirements) to engage with buyers, and the consequent reduction in information asymmetry between the upstream providers and their buyers.

However, negotiation is not a panacea that creates sufficient buyer power; even with a 'perfect' negotiation process, this may not (in a competition policy sense) lead to *effective* countervailing buyer power. As noted in sections 3 and 4, structural aspects are potentially more important in affecting bargaining outcomes. In normal markets, negotiations (ie, bargaining) can arise of their own accord without the need for a regulator to determine the process.

Bargaining outcomes depend significantly on how the outside options of the downstream firm (to buy the services from someone other than the upstream provider) compare with the outside options of the upstream provider (to sell to someone other than the buyer with which they are negotiating). Structural features of a market will have a major effect on these outside options, such as the ability of the buyer to switch quickly to alternative upstream providers; the size of the buyer and their importance to the seller; and the cost structure of the sector. Nonetheless, there are other factors that affect the outside options, or at least bargaining effectiveness, which are more contractual in nature (such as the ability of the downstream firm to delay payments). The degree to which a regulator can enhance buyer power will therefore—assuming that the industry structure remains fixed—be limited to measures that 'contractually' affect the outside options of the respective players through framing of the consult/negotiate process and through regulatory sanctions.

5.1.2 When is buyer power enough to eliminate upstream SMP or dominance?

Section 3 showed that, in competition policy, if effective downstream countervailing buyer power is present, this eliminates the dominance or SMP that would otherwise be held by an upstream seller (section 3.3). Effective downstream countervailing buyer power may also prevent upstream horizontal mergers (ie, between rival sellers) resulting in undue harm through an SLC (section 3.4).

Hence, the hurdle in competition law practice to achieve *effective* countervailing buyer power is fairly high—buyer power among downstream purchasers of an input must be strong enough to *completely eliminate* the dominance (or SMP) of the firm supplying the input.

The combination of structural characteristics having the most influence on buyer power, and the high hurdle for achieving effective countervailing buyer power, means that, in infrastructure sectors, while improving the negotiation regime might help to increase buyer power, the structural features of the sector may limit the possibility of achieving effective countervailing buyer power in a competition policy sense. In contrast to other markets, upstream network utilities often tend (initially) to have a large market share. In these situations, a well-functioning consult/negotiate regime might increase *buyer power*, but stop short of delivering *effective* countervailing buyer power.

A regulator may nonetheless still be concerned with how buyer power can be increased, even if this does not completely eliminate SMP. This might be achieved in part through measures to improve the consult/negotiate framework. Regulators can play an important role in framing the negotiation process, determining the order of the process and, crucially, setting out at each stage what might happen if agreement is not reached. This threat of

regulatory intervention, if credible, could help to clarify the outside options for each party, which will affect their relative bargaining strength. It is unlikely that regulators can be passive and simply assume that negotiation that improves regulatory outcomes will emerge.

5.1.3 Will buyer power help all buyers, end-consumers, and society?

There is also a question as to whether buyer power should be promoted per se, or as a means to an end.

Sections 3 and 4 illustrated that, as downstream buyer power would significantly constrain the upstream market power of sellers, this is generally assumed to be pro-competitive and beneficial, provided that downstream competition is not unduly hindered. However, it was also identified that buyer power may not always deliver net benefits to end-consumers. For example, if downstream competition is not sufficiently 'intense', additional buyer power held by intermediate users may create additional downstream market power in the end-product market, with the gains from reduced input prices retained by the buyers. Rather than consumers benefiting from buyer power, there may simply be a redistribution of rents between the upstream infrastructure providers and the intermediate users. Moreover, downstream competition may be harmed if buyer power is uneven *and* upstream sellers are able to price-discriminate between buyers with power and smaller firms without buyer power (ie, uneven bargaining, potentially leading to the waterbed effect[99]).

Similarly, in a regulatory context, the views among intermediate users are not always aligned; nor are end-users' interests always aligned with those of the intermediate users. Depending on the market structure and who is involved in the consult/negotiate process, the outcome may favour some intermediate users over others (for example, one particular airline rather than all airlines). Depending on the nature of downstream competition (for example, among airlines), the benefits gained from reduced input prices may or may not be passed on to end-consumers. There may also be misalignment between the objectives and timescales of intermediate users and end-users and/or future competitors. For example, at an airport the largest user may wish to secure a deal that suits its needs, but not new capacity if this would generate new entry downstream, and not an additional (but lower-specification) terminal building or pier if this would attract low-cost carriers.

Furthermore, if wider policy objectives are present in an infrastructure sector—such as an objective to create a strategic transport hub—these may or may not be captured adequately in the consult/negotiate process. It will be necessary for the regulator to consider whether the market structure present, consult/negotiate process, and form of regulation are sufficient to align the outcomes obtained from bargaining with those sought by end-consumers and by society at large.

Hence, infrastructure regulators should be interested in enhancing buyer power as a means to an end, rather than an end in itself. The regulator can design a regulatory system such that end-consumers benefit from buyer power. The regulator (taking account of government policy) can also ensure that buyer power is exercised in a way that benefits the wider society.

5.1.4 Is a well-functioning consult/negotiate process a substitute for regulation?

The policy question behind the current study is, in part, whether consultation and negotiation can be relied on instead of using more detailed ex ante regulation, for example.

As noted, in a regulatory context it is necessary to consider the *degree* of buyer power of the downstream firms relative to the upstream infrastructure providers, rather than just whether the downstream firms have *effective* countervailing buyer power.

[99] However, as discussed in section 4, such effects can be controversial. For example, consumers may still benefit from lower prices, and there are ways for smaller firms to overcome or mitigate the waterbed effect (by learning about others' discounts, and through the seller not wanting the downstream buyer to become too strong).

Moreover, the objective of the regulator—in increasing the scope for user involvement and negotiation—is not focused solely on creating buyer power. Rather, increased user involvement fulfils other objectives—in particular:

– **reducing the problem of information asymmetry faced by the consultees**—for example, stakeholders may not need to second-guess what investment is required, when, and how much this should cost. Instead, users can become more involved and express their views. However, arguably the goal would be to include the views of a wide range of 'users', including smaller intermediate users, local interests and end-consumers, rather than just supporting buyer power per se. Moreover, the effectiveness of information revelation would depend on the powers of the regulator to frame the consult/negotiate process;

– **reducing the burden of regulation, lowering transaction costs**—for example, less detailed analysis by the regulator is required; and the regulator may not need to examine all aspects of the capital programme if there is broad agreement on what is required (unless the CAPEX might reduce the scope for future entry).

The former concerns 'agency theory' as much as bargaining theory, in terms of improving information flows to enable the regulator to facilitate better decisions on whether prices and costs are appropriate. The latter concerns 'transaction costs', in that lighter-touch regulation generally results in lower costs and less regulatory intrusion than more detailed ex ante price regulation.

In practice, improving the negotiation regime may assist on all three fronts: increasing buyer power; reducing information asymmetry; and reducing transaction costs.

Moreover, greater use of consultation and negotiation is not confined to light-touch regulatory frameworks. In the UK, for example, where ex ante price limits are set in many infrastructure sectors, a number of regulators are currently considering how user involvement can be increased to complement the regime, while improving information and reducing the costs of regulation.

5.2 What might be the role of improved consultation and negotiation?

Taking the above points together, it is possible to reformulate why, from an economic regulation perspective, improving the scope for consultation and negotiation is important. As a starting point, the overall regulatory context is that the sectors concerned are regulated for a reason, which might include the following.

– **Natural monopoly**—upstream infrastructure networks are essential services and may be naturally monopolistic or otherwise granted a monopoly, and have market power.
– **Systemic importance**—the priority in such sectors, from a societal perspective, is to keep the functions of the business running (to enable the business to finance its functions).
– **Limiting monopoly profits**—a priority is then also to ensure that prices are not excessive (to prevent excessive monopoly profits being made).
– **Encouraging efficiency**—another priority is that operating and investment costs are efficient, and that quality of service is at the level expected in a well-functioning market.

To deliver the above, regulators face a choice in terms of how they regulate, with approaches including ex ante price caps, light-touch regulation, or even ex post regulation.

The approach used in the Netherlands to regulate the transportation sectors has been lighter-touch regulation in preference to more detailed, CPI – X regulation; with emphasis placed on cost-orientation, and on consultation and negotiation. As discussed in section 5.1, an aim of the adopted approach was that improving the consult/negotiate process would help

to incentivise (or force) upstream infrastructure providers to engage with downstream intermediate users, and improve information transparency—which together would help to create buyer power. This power would then limit the ability to create an upstream monopoly, leading to better outcomes being passed on to intermediate users, and wider benefits for end-users. Here, negotiation could be relied on to generate buyer power, instead of introducing more detailed ex ante price regulation.

In practice, however, sector regulators may have a variety of objectives in mind when seeking to introducing consultation and negotiation:

– **creating buyer power versus addressing other aims of consultation and negotiation**—as discussed in section 5.1 above;

– **creating effective countervailing buyer power versus improved buyer power**—the development of an improved negotiation regime may not be sufficient to create effective countervailing buyer power that eliminates SMP. Rather, a regulator may be concerned with creating more bargaining power;

– **creating improved buyer power versus beneficial buyer power**—increasing bargaining power is not an end in itself. There may be downstream effects, and other market failures to take into account (compared with other sectors, infrastructure sectors have particular characteristics to be considered).

Notwithstanding these issues, a sector regulator can play a key role in influencing the outside options available to the parties, and in determining the effectiveness of bargaining. This can be through the regulator actively framing the consult/negotiate process, and influencing the sanctions in the event of non-agreement. A regulator could also have a role in aligning the outcomes of any bargaining process with those of intermediate users in the round, and with those of end-consumers, as follows.

– **Eventual pass-through of benefits**—to ensure that, over time, end-consumers benefit from buyer power (in the event that increased buyer power does not immediately benefit end-consumers), without undermining the incentives for bargaining in the first instance.

– **Degree of uneven bargaining or the waterbed effect**—to examine whether buyer power is balanced or unbalanced, with some buyers favoured over others by the upstream business, which may harm competition downstream (whether in relation to prices, quality or investment).

– **Time inconsistency: dynamic inefficiency in investment and entry over time**—to examine whether the objectives and timescales of intermediate users and future competitors are aligned in terms of capacity provided.

It is of note that, in general, a sector regulator operating within a light-touch regulatory framework could have a number of options to tackle any perceived deficit in the strength of buyer power, its effects on downstream competition, or on end-users and wider society. These range from less to more interventionist options. For example:

– **tweak the existing consult/negotiate regime**—a regulator using a light-touch framework could try to foster and/or increase downstream buyer power. The regulator might explore ways in which, within the existing legislation, the existing consult/negotiate process could be enhanced, while also seeking to align the interests of intermediate and end-users;

– **overhaul the existing consult/negotiate regime**—alternatively, a regulator might seek to undertake more radical changes, including more proactive ‘framing’ by the regulator of the consultation and negotiation process. This could, however, require changes to the existing legislation for the sector concerned;

– **introduce ex ante regulation**—instead of continuing to rely on light-touch regulation and the consult/negotiate approach, a regulator might instead consider whether there is a role for introducing ex ante regulation upstream, whereby the regulator has the final say on the operating expenditure (OPEX), CAPEX, returns, service levels and prices that the upstream business can offer. Here, the regulator would act proactively on behalf of downstream intermediate users and end-consumers (in effect, as a 'surrogate' buyer). This route could, however, require changes to the legislation for the sector concerned;

– **explore structural options**—alternatively, given that the main determinants of buyer power are structural in nature, the regulator concerned might seek structural solutions to change the market structure, in a way that fosters and enhances downstream buyer power. For example, a regulator might seek to encourage divestment upstream, or reduce upstream entry barriers. Such measures would most likely require changes to the legislation.

Each of these options would have its respective advantages and disadvantages in addressing any perceived deficit in the strength of buyer power, in the particular situation concerned.

5.3 What are the lessons from elsewhere on consultation, negotiation and buyer power?

It is of note that the scope for the use of negotiation and buyer power (in a bargaining context) to improve regulatory outcomes has been discussed in a number of sectors and countries. These cases, summarised further below, illustrate the aims of negotiation, the prerequisites for good negotiation, how it can go wrong, whether buyer power is present and is effective, and whether buyer power necessarily benefits end-users.

The case studies also discuss the role of the regulator in facilitating light-touch regulation and/or consultation and negotiation. The common theme is that the regulator has a crucial role in formulating and influencing (including incentivising) the consult/negotiate process, regardless of whether this is in the context of light-touch or more detailed ex ante price regulation.

The cases summarised below are as follows (more details on each can be found in the appendices, as indicated):

– OPTA and effective countervailing buyer power in telecommunications (Appendix 1);
– regulatory involvement in US gas pipeline negotiated settlements (Appendix 2);
– light-handed regulation of New Zealand airports (Appendix 3);
– user engagement in the English airports sector (Appendix 4);
– the experience in the rail sector in Great Britain (Appendix 5);
– customer involvement in the GB energy sector and water sector in England and Wales (Appendix 6).

In each case, the messages for the current study are summarised, as follows.

OPTA and countervailing buyer power in telecommunications
This case study shows how, in the European telecommunications sector, if buyer power is strong enough to eliminate SMP, ex ante regulation is not required (see also section 3).

However, the specific case study for OPTA shows that, even where various factors appear to be present, it can be difficult to conclude that these generate effective countervailing buyer power, which eliminates SMP upstream, especially if the purchaser has few outside options. Furthermore, it shows that regulatory signals on 'appropriate prices', and dispute resolution, are essential in assessing buyer power, a point that is particularly important in the context of

the current study. Regulators can frame the negotiation process and influence the outside options of the parties, and bargaining effectiveness.

Regulatory involvement in US gas pipeline negotiated settlements
The case of the role of the Federal Energy Regulatory Commission (FERC) in facilitating negotiated settlements in the case of US interstate gas pipelines is interesting on several levels. First, it illustrates how more buyer power, and more readiness to negotiate, can be present when the structural features of the sector concerned are conductive to this. In the sector concerned, there are several intermediate users and large users with a keen interest in gas transportation charges, and whose interests are similarly aligned in securing low transportation charges. Gas pipelines also face competition from other fuels, and larger downstream parties are often linked to more than one pipeline. This increases the outside options available to the downstream parties.

Second, it shows how FERC has successfully facilitated negotiated settlements in 90% of cases, rather than using its credible threat to undertake a full rate-case review via litigation. It has been noted that '[FERC] observes that the use of settlements better addresses all parties' concerns, dramatically limits the time, expense and resources devoted to these cases, and provides an outcome more acceptable to the parties', compared to the alternative of more formal litigation hearings overseen by FERC.[100]

Third, it demonstrates how, even when a negotiation process is undertaken, the regulator concerned does not play a passive role. In effect, FERC 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.

Light-handed regulation of New Zealand airports
The experience of regulation in this sector reveals a number of issues. Regulation of the New Zealand airports sector is light-touch, in that there is no explicit ex ante regulation of prices. Rather, the regime is one of information disclosure, consultation and monitoring. Importantly, the regime relies on the presence of buyer power to discipline the airlines, coupled with the threat of regulatory action in the event that problems arise. However, the structure of the sector means that, in the short to medium term, airlines at the main hub airport would face difficulty in relocating significant amounts of capacity to an alternative airport. This limits the outside options of the airlines, and hence their buyer power.

Furthermore, as noted, light-touch regulation has been used in New Zealand, together with a requirement for consultation with users. However, a number of problems have been identified with this by the Commerce Commission and New Zealand government. The cost-plus system of regulation may not encourage efficient investment; information disclosure and consultation do not appear to have been effective in generating buyer power; and airports are required only to consult with airlines, rather than to negotiate with them.

The lack of clarity or flexibility on ultimate sanctions, in the event that consultation with airlines is ineffective, or if the regulator judges that regulation is not working well, may have hindered the process. More recent measures have been incorporated to increase the tools available to the regulator (eg, specification of input methodologies; recourse to alternative forms of regulation in the event that consultations, or the regulation process, do not deliver). These can be seen as more interventionist actions by the regulator in the absence of sufficient buyer power, but also as attempts by the regulator to influence the outside options of the parties, as well as increasing transparency.

[100] See Littlechild, S. (2010), 'The process of negotiating settlements at FERC', October 17th.

User engagement in the UK airports sector
The experience of the UK airports sector illustrates how the CAA assesses buyer power in deciding whether SMP is present, and hence whether an airport should be subject to formal price regulation. The drivers of buyer power are mainly structural (see also section 3).

The experience also shows how, where airports are regulated (ie, where effective countervailing buyer power is deemed by the CAA *not* to exist), ex ante RPI – X regulation is used, as opposed to light-touch regulation. However, the CAA has sought to move away from a regime in which it decides on all aspects of the regulatory settlement (including investment), to one of 'constructive engagement'. In this, there is greater involvement of intermediate users (airlines), through a consult/negotiate process, which can be seen as a complement to ex ante RPI – X regulation, rather than necessarily a substitute for it.

However, the UK airports case study shows how, in seeking to promote constructive engagement, problems have emerged. Information asymmetries, the disparity between the resources available to an airport versus an airline, the resource-intensive nature of the process potentially excluding smaller airlines, and the lack of dispute and/or arbitration mechanisms, have all hindered the process. Although lessons are now being taken on board by the CAA to improve the process, and many commentators have argued that the CAA should be clearer up front in setting out the rules for constructive engagement, there is nonetheless a debate as to whether previous problems with constructive engagement were mainly structural or procedural. In terms of structural issues, different airlines have different views on investment levels given their business model; current airlines may not want additional airport capacity if this means increased charges or greater competition from new entrants in future (time inconsistency); and airlines' interests may diverge from those of passengers and the wider economy.

The rail sector in Great Britain
This case illustrates that, even when the structural features of a sector appear conducive to creating buyer power, the regulatory and contractual framework may undermine the incentives for intermediate users (train companies) to negotiate actively with the upstream (rail infrastructure) provider on appropriate levels of investment.

At first glance, as regards the structure of the rail sector, it might be expected that the exercise of buyer power by train operators in GB rail could be extensive, and contribute consistently to the incentives on Network Rail. There are a few large TOCs in the sector, which could, in theory, seek to influence Network Rail, both directly and through the regulatory framework, on issues such as outputs, investment and track access charges. However, a number of factors constrain this potential: first, higher-level outputs for Network Rail are determined by government, in return for provision of a subsidy, reducing the involvement of the TOCs in deciding on outputs and investment; second, TOCs are contractually insulated from the financial effects of regulatory reviews of track access charges, since their franchise terms tend to extend beyond these five-yearly reviews, reducing their incentives to engage on charges; and third, the short TOC franchise periods may reduce their incentives to engage on the long-term investment programme of Network Rail.

Customer involvement in the GB energy sector and water sector in England and Wales
In the GB energy network sector and water sector in England and Wales, stakeholder engagement is being introduced as a complement to the powers of the respective regulators to set prices under an ex ante RPI – X framework, rather than a substitute. In particular, the regulators retain ultimate power to set prices in a way that balances the interests of customers (both current and future) and the industry that they regulate.

These case studies illustrate how greater user consultation and negotiation is not simply a matter of creating buyer power. Rather, it can be a means of ensuring that companies are focused on their users more broadly (intermediate users and end-consumers), and take the views of other stakeholders into account. Here, the process of stakeholder engagement

provides additional information to the regulator, in particular on what investment is required, when, and at what cost.

For example, the GB energy regulator, Ofgem, is examining how stakeholder engagement can be incorporated into RPI – X regulation of energy networks. It has set out considerations that are relevant to assessing whether network companies have meaningfully engaged with their 'customers' (who has been engaged, the issues on which views have been sought, and the way in which engagement has taken place), and how this engagement can be incentivised (through the quality performance regime, or by fast-tracking of certain companies with less scrutiny of their business plans).

5.4 Lessons from regulatory precedent

Before presenting a framework in the next section in which the degree and role of buyer power in the two transportation sectors concerned in the Netherlands might be analysed, it is worth summarising the lessons from the case studies described above.

- **Consultation and negotiation can help to increase buyer power**—a well-functioning consult/negotiate process may assist buyer power by incentivising (or the regulator requiring) upstream providers to engage with downstream buyers, and through the consequent reduction in information asymmetry between upstream providers and their buyers. Regulators can increase buyer power by proactively framing the consult/negotiate process, incentivising engagement, and educating parties on how they can improve regulatory outcomes. In particular, the threat of imposing regulatory sanctions, including penalties or more interventionist (heavier-handed) regulation in the event that upstream providers do not undertake meaningful engagement with their buyers, can help to encourage consultation and negotiation by enhancing buyers' outside options. The case of FERC highlights how a regulatory body with sufficient powers and flexibility to frame the process and impose sanctions can assist in ensuring meaningful engagement. The case of New Zealand airports shows how lack of regulatory powers to demand negotiation, and to impose sanctions, can harm meaningful engagement.

- **Market structure determines whether buyer power is present**—the development of an improved negotiation regime may not, however, be sufficient to create effective countervailing buyer power (in the strict sense of buyer power being powerful enough to eliminate upstream SMP). The cases of OPTA, FERC, New Zealand airports regulation, and the regulation of English airports all point to market structure being the single most important determinant of the presence and extent of buyer power. The OPTA case study shows that, even where a variety of factors appears to be present, it can be difficult to conclude that these generate enough bargaining power that results in buyer power being effective countervailing power and eliminating SMP upstream, especially if the purchaser has few outside options. In the FERC gas pipeline case study, the presence of a number of large buyers with credible alternatives assists buyer power in the consult/negotiate regime. In the case of New Zealand airport regulation, at the main hub airport, airlines would face difficulty in relocating capacity over the short to medium term to an alternative airport, limiting the outside options of the airlines and their buyer power.

- **Buyer power is a means to an end (better regulatory outcomes), not an end in itself**—the regulator also has a role in seeking to align the outcomes of any bargaining process with those of intermediate users in the round, end-consumers, and society. The regulator might seek to examine three key issues:

  - **pass-through**—over time, do end-consumers benefit from buyer power (in the event that increased buyer power does not immediately benefit end-consumers)?

  - **uneven bargaining and/or the waterbed effect**—is buyer power balanced or unbalanced, with some buyers favoured over others, which may harm competition downstream (whether in relation to prices, quality or investment)?; and/or

  - **time inconsistency**—is there a misalignment between the objectives and timescales of intermediate users and future competitors in terms of capacity provided (for example, the investment needs of current versus future airlines)?

  Regulatory intervention may be required to address these issues. The case of UK airports shows how the objectives of intermediate users may not always align with those of end-users or wider society.

- **Increasing the scope for consultation and negotiation is not just intended to create buyer power**—it may be developed to improve on the problem of information asymmetry (eg, what investment is required and when) in providing information to the regulator; to retain low transaction costs (relative to more intrusive forms of regulation); and (in part through these measures) to increase the buyer power of intermediate users. Recent developments in the GB energy sector and water sector in England and Wales in enhancing customer engagement show that such measures are not simply about creating buyer power. Rather, engagement can ensure that companies focus on their users more broadly (intermediate users and end-consumers), and take the views of other stakeholders into account. This process provides additional information to the regulator on what investment is required, when, and at what cost. There are valuable lessons for assessing whether network companies have meaningfully engaged with their 'customers' (broadly defined), and how this engagement can be incentivised in the first instance.

- **Regulatory and contractual arrangements can undermine (rather than complement) buyer power**—the current set-up in the rail sector in Great Britain provides franchised passenger operators almost no countervailing buyer power, by design of their franchise agreement. To reconcile five-year access charge reviews of infrastructure manager, Network Rail, with franchise terms that do not match this periodicity, TOCs are held financially neutral to changes in access charges arising from access charge reviews—so they are indifferent to the outcome of the seller's price-setting activity. While the structure of the sector looks conducive to creating countervailing buyer power, the current contractual arrangements virtually eliminate such power.

6 A buyer power assessment framework for the Netherlands transportation sectors

6.1 Context for sector analysis

As discussed above, the legislation and regulatory frameworks introduced in airports and rail in the Netherlands rely on the presence of buyer power in driving satisfactory outcomes for end-consumers. The approach adopted in the two sectors varies, but arguably involves lighter-touch regulation, as opposed to more detailed regulation such as full ex ante price-setting by the NMa.

This section can be read in conjunction with the preceding sections of the report or as a stand-alone section.

Earlier in this report, the following three steps of logic were set out that are necessary to reach the conclusion that, in the two sectors, a well-functioning consult/negotiate process might create or enhance buyer power, and even potentially create effective countervailing buyer power, to the benefit of end-consumers.

1. **Buyer power depends on the regulatory process**—hence, a well-functioning consult/negotiate process in the two sectors might help to enhance or create buyer power, potentially leading to effective countervailing buyer power.

2. **Buyer power results in 'good' outcomes**—if present, effective countervailing buyer power will then limit (eliminate) the ability of the upstream monopoly provider to exercise its market power, leading to better outcomes for both intermediate users and their end-consumers, in terms of reduced margins, costs, and prices; better quality; and greater innovation.

3. **Buyer power then means lighter-touch regulation**—the negotiation process can then be relied on to generate effective countervailing buyer power, rather than the NMa using more detailed regulation, such as ex ante price cap regulation (or some other form of ex ante regulation).

However, the degree to which countervailing buyer power can be judged as being present is determined more by the underlying structure of the sector than by the regulatory approach.[101] Even a well-functioning consult/negotiate regime may be insufficient to create effective countervailing buyer power. For effective countervailing buyer power to exist, the buyer(s) need to be able to threaten to move a significant portion of their custom away from the upstream infrastructure supplier. Moreover, this threat needs to be credible, such that the supplier believes that the buyer's threatened outcome is likely, meaning that the supplier will change its behaviour in response.

There may also be a divergence between the interests of intermediate users and end-users—in particular, if other market failures are present. End-consumers might not benefit from any countervailing buyer power present if downstream competition is insufficiently intense (monopoly rents arising from the nature of the upstream provider would be captured and shared by its buyers). Downstream competition might also be harmed if some parties benefit from better deals at the expense of others (uneven bargaining, which may give rise to the waterbed effect, and which in turn may harm competition downstream). There may also

[101] See section 5.4. These issues are also discussed in section 2.3, and in the summary messages provided in sections 3.5 and 4.3.

be a misalignment between investment wanted by current intermediate users and their future competitors (time inconsistency).[102]

Lastly, if the structural features of the sector are not conducive to creating effective countervailing buyer power, enhancing the consult/negotiate process can be seen as something that can help to increase buyer power, although stopping somewhat short of eliminating upstream market power. The process can potentially also be used to complement, rather than substitute, more proactive/intrusive forms of regulation.

These points will be returned to in what follows below.

6.2 Framework for sector analysis

Before outlining the framework, it is important to take stock of the lessons from the preceding analysis:

– monopsony is less relevant perhaps to the current study—the more relevant framework is bargaining;

– key elements of the bargaining framework are the outside options of the upstream and downstream party (or parties), respectively, and bargaining effectiveness;[103]

– the competition policy (antitrust) definition of effective countervailing buyer power is that, in a bargaining framework, buyer power (downstream) is present to a sufficient degree that any SMP (upstream) that might otherwise exist is completely eliminated;

– in the context of the current study, however, it needs to be recognised that buyer power is more generally a matter of degree.[104] While a regulator may seek to increase buyer power, for example by improving the consult/negotiate framework, the outcome achieved may fall somewhat short of effective countervailing buyer power in the competition policy sense—ie, to eliminate upstream SMP;

– buyer power relies on a multitude of factors—just because one holds does not mean all hold;[105] some may be necessary, others sufficient, but they are interdependent;

– industry structure is the single most important determinant of the degree of buyer power present. The ability of an intermediate user to switch to an alternative upstream supplier over the short to medium term is crucially important. Even an optimal consult/negotiate process might be insufficient to create effective countervailing buyer power if the industry structure is not conducive to it;[106]

– if industry structure is not conducive to materially facilitating buyer power, meaningful engagement might not take place. Even if the industry structure concerned appears, at initial glance, to be conducive to generating buyer power (including effective countervailing buyer power), this might not emerge in practice if the regulatory regime disincentivises engagement between the parties on specific issues (such as investment);[107]

[102] See section 5.2 and the summary messages contained in section 5.4. These issues are also discussed in section 2.4, and in the summary messages outlined in sections 3.5 and 4.3.
[103] See section 3.
[104] See sections 1, 4 and 5.
[105] See sections 3 and 5.
[106] See section 2 and section 3, and also section 5 on where the consult/negotiate regimes have been more and less successful (for example, contrasting the successes of the FERC regime with the problems encountered in regulating New Zealand airports).
[107] See section 5 for the discussion of the GB rail sector.

– regulation needs to take the potential market failures into account (waterbed/uneven bargaining effects, time inconsistency and lack of pass-on of benefits to end-consumers).

In short, in infrastructure sectors where some form of regulatory regime is present an industry structure conducive to providing downstream users with bargaining strength, and a regulatory framework that encourages parties to take an active interest in and negotiate over issues such as price, efficiency, and investment, are both key to securing buyer power.

Drawing on the preceding discussion, this section now outlines the criteria for assessing what degree of buyer power is likely to be present, and the effects of this buyer power. Four tables are presented:

– Table 6.1 considers what affects the outside options of the buyer (what they would do if agreement is not reached);
– Table 6.2 considers what affects the outside options of the seller (what they would do if agreement is not reached);
– Table 6.3 examines issues that determine bargaining effectiveness (transaction costs, process, other factors that might affect outside options);
– Table 6.4 then examines the role of the economic regulator in framing the consult/negotiate process to enhance the bargaining effectiveness of buyers.

Buyer power is more likely to be present if buyers (intermediate users) have credible outside options not to purchase from the buyer. Table 6.1 summarises when this is more likely.

Table 6.1 Factors that enhance buyers' outside options

Factor	Comments
Buyers have 'a choice'. They are able (and prepared) to credibly switch a significant proportion of their capacity, in the short to medium term, to an alternative upstream supplier	An important condition for generating effective countervailing buyer power. This is more likely if: – buyers are well informed of the alternatives to their existing upstream supplier – there are other upstream suppliers with spare capacity available to serve the buyer, should it switch (eg, an alternative train route or airport) – there is little infrastructure dedicated to the buyer linked to its purchasing relationship with the existing upstream firm (ie, there are few relationship-specific investments that may hinder the buyer from switching) – the buyer would not be exposed to more downstream competition if it left the existing upstream firm and purchased from a different upstream firm (say, more intense competition with other airlines at a different airport) – end-consumers are willing to switch 'with' the downstream firm (eg, passengers to another airport) – bargaining is over new capacity potentially to be supplied by the upstream firm, rather than over existing capacity already supplied or if the buyer is a new entrant (has yet to purchase any output from the upstream supplier)
Downstream buyers can credibly threaten to reduce, or shift to other suppliers, aspects of their capacity or volumes	This is a less stringent condition, and may fall short of generating effective countervailing buyer power. This is more likely to hold if buyers: – have flexibility over how they use a given level of capacity (eg, using smaller or larger planes, or not using certain services at an airport terminal, to take advantage of lower charges) – can redirect some volumes to other upstream providers (increasing volumes on other origin–destination (OD) routes in the case of rail; or using other hubs more for international air passenger transit) – operate across different downstream markets (eg, across rail freight and road freight)
Buyers are large in relation to the seller	A necessary (but not sufficient) condition for buyer power. Size may be in terms of: – importance of the buyer (as a purchaser of the input) to the upstream seller – downstream market concentration of the largest buyer(s)

Factor	Comments
Buyers are otherwise able to bypass the current upstream supplier	This may or may not generate buyer power. It is more likely to hold if the buyer could credibly: – sponsor new entry upstream or bypass (if not an essential facility) – intensify competition between rival upstream suppliers (eg, transport modes) – vertically integrate into upstream activities

Source: Oxera analysis.

Buyer power is also more likely to be present if the outside options of the seller are more limited. Table 6.2 summarises when this is more likely.

Table 6.2 Factors that limit sellers' outside options

Factor	Comments
The upstream supplier has little alternative but to sell to the downstream buyer(s)	More likely if there are long-term relationships or contracts between upstream and downstream firms; or long-term downstream concessions
The upstream supplier does not have the ability to impose price (or other terms) in the event of non-agreement	Depends on regulatory requirements for how prices and other terms must be set (eg, by the upstream firm, through negotiation, or by the regulator). See Tables 6.3 and 6.4
The upstream supplier has invested in dedicated facilities to serve the downstream buyer(s)	More likely where upstream infrastructure is dedicated and not shared by buyers that operate downstream
The upstream supplier has economies of scale, which mean that its unit costs would significantly increase if it lost a downstream buyer(s) or volumes demanded by the downstream buyer(s)	More likely if the activities upstream are CAPEX-intensive and where fixed costs to serve downstream consumers are high
Buyer groups exist to collectively represent the interests of smaller buyers (assuming that different buyers have similar interests)	Limits the scope for bypassing buyers seeking a settlement
Limited entry by new buyers downstream	Forces the upstream firm to deal with existing buyers (rather than new entrants)
Upstream supplier would be affected by short-term cash-flow issues if buyers were to withhold payments	Increases the impatience of the seller to reach settlement

Source: Oxera analysis.

The factors outlined in Tables 6.1 and 6.2 are mainly related to the structure of the market concerned, although there are also other factors at work.

Bargaining effectiveness is a very general term. It refers to the transaction costs involved in bargaining, the nature of the process, and further elements of buyers' and sellers' outside options. Table 6.3 below illustrates, through factors that affect bargaining effectiveness, whether buyers are also more likely to have an advantage over the seller, and hence whether the situation is more conducive to (maintaining or creating) buyer power.

Table 6.3 Factors that enhance the bargaining effectiveness of buyers

Factor	Comments
Buyers are commercially orientated in seeking a good deal (and/or have a reputation for doing so)	Buyers that are not profit-maximising may have less incentive or ability to negotiate
The cost of the input sold to the buyer is material as part of its overall costs of supply; and transaction costs of negotiation for the buyer(s) are low	This affects the extent to which the buyer would actively seek to negotiate. Buyer groups or regulators can help reduce transaction costs
Downstream buyers can delay payments	This may depend on the extent to which the upstream firm cannot (or would not) then refuse access to the downstream buyer
The buyer(s) can adjust ex post the contractual terms with the upstream supplier (ie, negotiated terms are not completely binding on the buyers, and can be renegotiated at low cost)	A credible latent threat if bargaining terms are not satisfactory (buyers may be more willing to seek a way out of an unsatisfactory agreement)
Dispute resolution or arbitration procedures exist, which may rule in favour of buyers (depending on the applicable criteria)	This complements buyers' outside options if agreement cannot be reached. However, if the procedures are systematically in favour of the seller, the seller may simply 'lean back', not negotiate, and wait for the arbitrator to reach a judgement
Buyers are more patient than the upstream firm in seeking to reach an agreement	This may be the case if buyers have more resources than the upstream firm to engage in lengthy negotiations or litigation to seek better terms; or if they are not impatient to start operating
The downstream buyer has good information about what are efficient upstream costs and the upstream firms' outside options	Required as a basis for the downstream firm to engage in the negotiation process
The buyer can influence or penalise the upstream supplier in the event of it receiving a poor negotiated settlement	This may be the case where the buyer operates in multiple markets. Alternative punishment mechanisms may also be available

Source: Oxera analysis.

Importantly, the practical experience of economic regulation illustrates that the regulatory regime itself can influence the outside options of buyers and sellers, and bargaining effectiveness.

Table 6.4 illustrates ways in which a regulator can seek to assist buyers as part of a consult/negotiate framework. This will also affect whether buyer power is present.

Table 6.4 Regulatory factors that enhance the bargaining effectiveness of buyers

Factor	Comments
Ex ante and ex post information disclosure to help inform buyers (while not 'overloading' them with information)	A regulator can reduce the discretion available to the upstream firm by enhancing the information made available to buyers. This may include providing the regulator with the ability to: – prescribe, or require regulatory approval of, input methodologies (eg, weighted average cost of capital (WACC), cost allocation) – determine ex ante information disclosure requirements for the investment programme, OPEX efficiency, quality standards, etc – determine ex post information disclosure requirements for the investment programme, OPEX efficiency, quality standards, etc
Framing of the consult/negotiate process to enhance information, reduce buyers' transaction costs, and provide time for engagement in negotiations	A regulator can seek to require or incentivise sellers to engage buyers in the process, through its ability to: – determine the required scope and focus of negotiations – design the consult/negotiate process, its order and timetable – require the upstream firm to demonstrate that it has adequately consulted with its 'customers' – assess the above on the basis of 'economic merits' rather than 'technical' compliance

Factor	Comments
Influencing the outside options available to buyers versus sellers (regarding price and non-price terms)	Through a combination of financial incentives (financial rewards and penalties) and procedural incentives (use of heavier-handed regulation in the event of non-agreement), the regulator can encourage sellers to engage with and reach agreement with buyers. However, the regulatory framework will influence the ability of the upstream supplier to impose price (or other terms) in the event of non-agreement (and hence the outside options of the seller). This depends on regulatory requirements for how prices should be set (eg, by the upstream firm, through negotiation, or by the regulator). In the absence of ex ante price regulation, the regulator can still seek to influence the incentives for buyers and sellers to reach agreement by specifying regulatory sanctions if: – the consult/negotiate regime is not effective in engaging buyers (eg, through a credible threat of imposing ex ante price regulation in the event of non-agreement); or – a negotiated outcome cannot be reached (eg, by specifying what might be default or satisfactory outcomes in the event of non-agreement); or – a well-functioning complaints or appeals process can be established, based on the economic merits of the case concerned, rather than technical points of process

Source: Oxera analysis.

The discussion throughout this report does show, however, that the impact of all these factors on the extent of buyer power, and the effectiveness of buyer power, is context-specific. Benefits are not guaranteed. It is important to bear these in mind in applying the above framework.

In this regard, some important observations are as follows.

– **Effective countervailing buyer power tends to be pro-competitive**—relative to the alternative situation of SMP otherwise existing upstream, so long as increased buyer power does not unduly affect downstream competition (if downstream competition is sufficient).

– **Extent of pass-through varies**—buyer power may or may not lead to pass-through of savings to end-consumers. The extent to which the benefits of buyer power are passed on to end-consumers depends on the nature of downstream competition faced by the buyers.

– **Price discrimination may lead to the waterbed effect**—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 downstream (and raising their costs). This waterbed effect could harm competition downstream where rival buyers purchasing from the seller compete in some way downstream. However, this relies on the buyers indeed competing in some way downstream. Moreover, uneven bargaining may not lead to a waterbed effect (which requires that improvements in terms offered to some buyers with downstream market power adversely affect the terms offered to other buyers). Even if there is a waterbed effect, this may not unduly harm downstream competition, and consumers can still be better off.

– **Non-price discrimination may lead to uneven bargaining on other factors or quasi-waterbed effects**—if price discrimination is not permitted (eg, in the case where the same uniform price must be offered to all buyers in a given customer class and/or for the same given level of service), an upstream firm might still offer services that are more geared to the business model of one particular downstream buyer than to another. This may be the case if service offerings to different downstream buyers involve the use of shared or of separate upstream infrastructure.

– **The interests of intermediate users and end-users may not be aligned**—the practical literature illustrates that there can be a disjoint between the objectives of current downstream buyers and of both current and future end-consumers. For example, a downstream buyer (eg, an airline) might not negotiate for the upstream firm to increase its current capacity if this means that, in future, more competitors (other airlines) will be able to access the capacity, increasing the intensity of downstream competition going forward. A more benign version of this market failure (time inconsistency) 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 process, and through regulation more generally, to better align the interests of intermediate and end-users.

– **Consultation and negotiation are not just about creating or enhancing buyer power**—rather, the consult/negotiate process may be used 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 more generally to sellers, buyers and stakeholders more widely. In addition, consultation and negotiation can be used to involve a wide range of user types and stakeholders in the consult/negotiate process, rather than being strictly an issue of buyer power.

– **Regulators play an important role in designing the consult/negotiate process**—even where lighter-touch regulation is used, 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 (as shown in Table 6.4).[108]

– **Enhanced consultation and negotiation may fit within an array of 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 substitute for, various forms of regulation. It can be used alongside all manner of regimes, from the heavier-handed to the lighter-touch ones. Even under a system of ex ante price cap regulation, it can help provide information to the regulator on appropriate investment and service levels (as noted above). Moreover, formal price controls might be used as a credible threat of intervention in the event that consultation and negotiation are not successful.

[108] See section 5 for the discussion of the FERC model of negotiated settlements, constructive engagement in UK airports, and the modifications that have occurred to the New Zealand model of airport regulation.

A1 OPTA and countervailing buyer power in telecommunications

In 2007, Oxera undertook a study[109] of buyer power in the Netherlands in its report for OPTA on mobile call termination (MCT) charges—charges that mobile network operators (MNOs) levy on other networks (rival MNOs and fixed-line operators) in return for enabling a call to be completed ('terminated') when it has been dialled by someone ('originated') on another network.

While this study did not strictly consider a vertical relationship between an upstream provider and a downstream firm, it nonetheless contains important lessons on when buyer power is more likely to be present, and whether a regulatory body might decide to introduce some form of ex ante regulation as a consequence. The case of MCT illustrates that, even when certain factors appear to be present (eg, a main purchaser), it can be difficult to conclude that these generate effective countervailing buyer power, in the sense that this eliminates SMP upstream. This is particularly the case if the purchaser has few outside options other than to purchase the product. It also shows that regulatory signals on 'appropriate prices', and dispute resolution, play a key role in the assessment of buyer power, which is particularly important in the context of the current study.

The context for the Oxera 2007 study for OPTA was that the European Commission (in 2003) had emphasised that national regulators in telecommunications markets would have to assess the strength of buyer power before concluding that a particular provider of MCT services had SMP.[110] A number of telecommunications regulators across EU Member States, including Ofcom (UK), ComReg (Ireland) and OPTA (Netherlands), had to reassess their findings of SMP of particular players providing MCT services. The appeal courts had argued that, in these decisions, insufficient analysis had been undertaken of the extent of buyer power (and that, to enjoy a position of SMP, a firm must be able to act sufficiently independently of its competitors *and* sufficiently independently of its customers).

The Oxera report therefore examined the extent to which purchasers of MCT services had buyer power of a level sufficient to counter the SMP of the operator providing MCT. This started with some definitions adopted by Ofcom, including that countervailing buyer power:[111]

> exists when a particular purchaser (or group of purchasers) of a good or service is sufficiently important to its supplier to influence the price charged for that good or service.

Ofcom also noted that, in considering whether an operator has SMP:[112]

> it is not sufficient just for the buyer to have some CBP but, rather, it is necessary that the buyer can exert sufficient CBP such that the prices charged by the seller are constrained to the competitive level. Any rate above that level would imply that the buyer's CBP is not sufficient and would therefore imply that the seller has SMP.

As noted in the Oxera (2007) report, a central implication of this definition is that, for countervailing buyer power to be considered 'effective', it must not simply constrain prices at, say, the current level, but should also ensure that prices respond to changes in the underlying costs over time. (For example, when costs fall, MCT rates should fall accordingly.)

[109] Oxera (2007), 'Research on countervailing buyer power for mobile call termination: the Dutch case', prepared for OPTA, April.
[110] European Commission (2003), 'On Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services', Explanatory memorandum, February.
[111] Ofcom (2006), 'Mobile Call Termination: Proposals for Consultation', September, p. 46.
[112] Ibid.

The presence of effective countervailing buyer power would indicate that sellers are unable to act independently of their customers, leading to the conclusion that the seller does not have SMP.

As noted, in contrast to the current study, the Oxera 2007 study for OPTA examined the relationship between providers operating at the same 'horizontal' level in a 'two-sided market'—ie, rival operators, each with their own consumer base, providing termination services to one another, in order to connect cross-network calls. The 2007 study noted that, in certain situations, MNOs may not have an incentive to raise MCT rates since, in practice, they charge one another MCT charges—although this was itself sensitive to certain assumptions.[113] In contrast, the current study explores the 'vertical' relationship between upstream supplier(s) who sell services—in a 'one-sided' market—to downstream buyers in the value chain.

Assuming that MCT operators did have an incentive to raise their charges above the competitive level, the next question was whether they were able to do so. This involved examining the degree of relative buyer power of purchasers of MCT. The study identified that this ability would depend on the following:

– the concentration of buyers, and the importance of MNOs as outlets for the sellers (buyer power is more likely when a few buyers purchase a large proportion of the firm's output. This limits the outside options of the seller, lowering MCT charges);
– the option to delay or withhold payment—for example, because the regulator had issued insights into what a reasonable level might be (this might also lower MCT charges);
– the presence of dispute-resolution procedures—and the ability of these to result in an outcome that favoured lower MCT rates (again, this might lower MCT charges);
– multi-market contact—whether lower MCT rates for the seller resulted in gains for it elsewhere (which would lower MCT charges);
– relative regulation of rates—if fixed-call termination providers are subject to more stringent regulation than MCT operators, fixed-call termination operators are in a weaker bargaining position (which increases MCT charges);
– existence of transit service providers—providing a means of bypass for buyers (enhancing the outside options, which leads to lower MCT charges);
– operators' desire to reach agreement—new entrants may need to reach agreement quickly to start operating (which may raise MCT charges).

Ofcom and OPTA had both examined whether effective countervailing buyer power (in the sense of eliminating SMP) was present in practice, and concluded that it was not. In the case of Ofcom, BT (as the fixed-line incumbent) was the main purchaser of MCT in the UK. Ofcom set out practical criteria to assess the extent of BT's buyer power: BT's option not to purchase; its ability to self-provide MCT for voice services on its own network; BT being an important outlet for the firm; and BT's ability to intensify competition between operators. However, that BT would refuse to buy MCT was not viewed as being credible. When combined with other criteria, Ofcom concluded that BT did not have sufficient buyer power to constrain the MCT charges.

Similarly, OPTA concluded that the empirical and factual evidence was not sufficient to conclude that countervailing buyer power was effective in the Dutch call termination markets—either historically or going forward. The largest buyer of MCT was KPN. OPTA assessed whether KPN had sufficient buyer power to constrain the ability of MNOs to set high MCT rates. On the basis of the evidence, OPTA examined whether a number of factors resulted in a decrease in MCT rates. Two key factors were the referral of disputes to OPTA, and the withholding of net termination revenues (for the difference between what the buyer deems is reasonable, based on the regulator's judgement, and what the seller is requesting).

[113] Analysis of countervailing buyer power would be relevant only where the MNOs' interests diverged. However, this lack of incentive was sensitive to assumptions. It was also noted that there may be one player that is a large net recipient of MCT fees which may, as a result, have an interest in raising them.

The latter proved to be the most direct means for buyers to flex their bargaining power. However, despite these factors, not only did MCT rates not decline, but they either remained constant or actually increased. OPTA concluded that KPN's degree of buyer power was insufficiently large and hence did not withdraw its finding of SMP.

Section 4 in the main report provided further discussion on the issue of effective countervailing buyer power being a level of buyer power that eliminates SMP, in relation to the both communications sector and more generally.

A2 Regulator involvement in US gas pipeline negotiations

Littlechild (2010) examined the process of negotiated settlements in determining transportation charges and other terms levied by US interstate natural gas pipelines, suggesting that this approach could be used in UK utility regulation (which, at present, is more ex ante-based and detailed).[114]

Interestingly, Littlechild does not focus on how sector structure creates pre-conditions for buyer power. However, the account provided of the upstream and downstream structure of the sector (the presence of rival pipelines, rival fuels and multiple buyers) arguably helps to explain why meaningful negotiations emerge in the sector and why, given the number of pipelines nationally, the negotiation route is preferable to more costly and interventionist regulation. Importantly, Littlechild claims that the outcomes are more fair and efficient than those that would otherwise emerge through a more interventionist approach.

The interstate nature of the gas pipelines means that these are regulated in the USA by the FERC, an independent agency that regulates the interstate transmission of electricity, natural gas and oil.

As regards gas pipelines specifically, there are many of these (upstream) transporting gas downstream to intermediate users and large end-users:

> FERC regulates some 150 interstate natural gas pipeline systems of very different sizes. In 2008 the largest 30 pipelines (in terms of system capacity) ranged from nearly 16,000 miles in length to under 1000 miles…These top 30 pipelines account for nearly three-quarters of total interstate system capacity. Two or three new pipelines are constructed each year

In addition, there is a wide range of intermediate users and large end-users downstream with a keen interest in the pipeline transportation charges. They include gas producers, marketers, large end-users (including electricity generators), and local gas distribution companies within-state that sell to smaller end-consumers. In this context, it is worth bearing in mind the nature of upstream and downstream competition, the outside options available to different (intermediate) users, and the scope for the FERC to intervene in the transportation terms levied by the interstate gas companies. For example, Littlechild notes:[115]

> Customers are interested in avoiding excessive transportation rates. To a greater or lesser extent, [these customers] are subject to competition, including from other fuels. The pipeline is also subject to some degree of competition from other pipelines. A distribution company…might be hooked up to two or more pipelines, thereby giving it a degree of choice as to which to use. Some larger distribution companies are hooked up to as many as seven pipelines. Each pipeline offers access to a number of different producers. Some pipelines have as many as 10,000 supply points where producers can input gas. Gas distribution companies are not subject to competition, but are subject to regulation by state utility commissions. Typically the costs of transportation are passed through to customers, but state commissions as well as distribution companies typically act as interveners (interested parties) in FERC's process for determining pipeline rates. Interveners may also include rival pipelines and potential customers. The number of participants in any rate case will vary, depending perhaps on the size of the pipeline or the size or nature of rate change proposed.

Arguably, this illustrates that downstream competition from other fuels (in the case of generation) and regulatory scrutiny of cost-pass-through decisions (by gas distribution

[114] Littlechild (2010), op. cit.
[115] Ibid., p. 5.

companies) provide an impetus for downstream intermediate users to seek a better deal. In addition, a number of local gas distribution companies have outside options (rival pipelines) to choose from.

The powers of the FERC to regulate interstate gas pipelines in the USA are set out in Section 4 of the Natural Gas Act. This allows the FERC to determine, through litigating over a 'rate-case review' brought before it, the appropriate transportation charges and terms for interstate gas pipelines. The charges that a pipeline can subsequently levy then refer back to the latest FERC decision 'on file'. If, at any subsequent point, a gas pipeline wishes to increase tariffs beyond this level (or if intermediate users wish to reduce the tariffs below this level), the party concerned must prove why the prevailing tariffs (including the associated quality obligations) are unjust and unreasonable.[116]

This system is, in effect, 'rate-of-return regulation', in which the prevailing set tariffs might hold until such time that, say, a gas pipeline requests a tariff increase in order to maintain a given level of return on capital.[117]

However, rate-case reviews, and the litigation process and detail involved, can be intensive and costly. This is compounded by the number of interstate pipelines and interested parties. As such, Littlechild notes that, in practice, FERC's approach is somewhat less interventionist. Rather than determining charges itself through litigation, FERC encourages the interested parties to reach agreement:[118]

> Historically, and still today, the 'leader' in negotiated settlements has been [the…FERC]. Nowadays, some 90% of gas pipeline and electricity transmission rate cases are settled by agreement between these utility companies and their customers rather than litigated via hearings in front of the Commission. Typically they result in fixed price agreements for about 3 or 5 years.

There is no obligation on the parties to reach agreement. In addition, the reliance on negotiation does not mean that FERC takes a passive role in regulating gas pipelines. Rather, its role tends to be to shape the negotiation process, to bring parties to the negotiating table, and to encourage agreement. It does so as an alternative to imposing final prices and terms on the parties, as it would otherwise do in a litigated rate review. Rate reviews would mean further FERC and Congress hearings, which are costly in terms of the transaction costs and managerial time taken up by all parties, and the public exposure generated. This is arguably one reason why the parties are willing to negotiate: if negotiations fail, there is a 'credible threat' that the alternative is more costly than getting the negotiations right in the first place.

Littlechild outlines how FERC staff are 'actively involved' in the whole negotiation process, which can be broken down into three main steps.

– **First settlement offer**—when a gas pipeline company puts forward proposals for a 'rate change' to the FERC (a request to change transportation charges—usually an increase) within the first three months after filing, FERC (and others) request information from the company, and FERC analyses the proposals. This culminates in FERC tabling a 'first settlement offer' (ie, a 'reasonable outcome' according to FERC). The offer document is circulated to the interested parties, but is not made public. In practice, this 'first cut' can be close to what the FERC's view would be at a formal hearing. According to Littlechild, the parties find it helpful to know the views of the FERC staff.

– **Settlement discussions**—the company's rate change proposals and the FERC's first settlement offer then set the remit for negotiations. Negotiations take place via

[116] Ibid., p. 6.
[117] This system of regulation is somewhat different to the use of consult/negotiate in the Dutch transportation sectors (although both systems are somewhat cost-plus in nature), or RPI – X fixed-price ex ante regulation in the UK.
[118] Littlechild (2010), op. cit., p. 2.

'settlement discussions', which are led by FERC staff. A first settlement conference is held, attended by all interested parties (but not the public). In this, FERC explains its first settlement offer and invites views. The gas pipeline company usually issues a counter-offer within a week. Within three weeks, a second settlement conference is held, before which FERC staff talk to the parties seeking information, discussing views and identifying points of focus. The aim of the settlement discussions is to bring parties to an agreement. An 'agreement in principle' is usually obtained within another two-and-a-half months of the start of the settlement discussion process—just before litigation testimony documents (involving considerable detail) would otherwise have needed to be filed. The discussions are therefore aimed at avoiding a formal litigation hearing. This is also assisted by FERC setting out, up front, a tight timetable for any formal hearings.

– **Agreed settlement document**—it then usually takes an additional two-and-a-half months for the parties to draft a final 'agreed settlement document', and for this to be legally certified by an administrative law judge. In the absence of any major complications, FERC usually formally approves the settlement in another two-and-a-half months.

According to Littlechild, in the last two years, the typical time to reach a settlement on requests under Section 4 to increase rates, and to get these certified before the FERC, has been around eight months:

> The parties are typically able to negotiate gas pipeline rates, for a period of about 3 to 5 years ahead, on the basis of an intensive period of negotiations of less than 3 months, plus a comparable period of preparatory questioning and analysis by FERC and themselves, and a subsequent period of drafting and processing the settlement.

There have also been cases where the FERC has sought to reduce charges (via use of its powers under Section 5 of the Natural Gas Act). Here, two of the three recent cases were similarly settled within seven months.[119]

Littlechild notes that the process has a number of advantages: it usually succeeds in reaching agreement; it delivers an outcome that the participants have chosen and prefer; and it takes less time and costs less than litigation:[120]

> FERC encourages negotiated settlements, and explains that it could not regulate without them. It observes that the use of settlements better addresses all parties' concerns, dramatically limits the time, expense and resources devoted to these cases, and provides an outcome more acceptable to the parties.

On the issue of whether this leads to 'fair and efficient outcomes':[121]

> the proof of the pudding is in the eating. Settlement is now actively chosen by all parties—utility, customers, interstate and state regulators—in some 90% of all cases. It has been consistently preferred, in essentially its present form, over a period of at least 35 years, and in some form for about 45 years. This is a remarkable record of survival in an activity—utility regulation—that has been characterised by no little reform and change over the last half century.

Crucially, the author cites two key ways in which FERC actively moulds this process:[122]

> The two key characteristics of the FERC process seem to be 1) that at an early stage the regulatory staff indicate their thinking on some of the key parameters as a basis for informed discussion by the parties, and 2) that the regulatory aim is to bring the parties

[119] Littlechild (2010), op. cit., notes that, in Florida and Canada, gas pipeline settlements tend to be negotiated largely independently of the FERC, but this is not the norm elsewhere.
[120] Littlechild (2010), op. cit. (The third case was discontinued by FERC at the request of the pipeline's Customer Group.)
[121] Ibid., p. 29.
[122] Ibid., p. 29.

into agreement, not to impose a preconceived settlement upon them. FERC thereby seeks to facilitate the market process, not to replace it.

In effect, FERC determines the rules of the game, and acts as a referee, with the game itself played out between the negotiating parties under FERC's supervision.

In summary, some of the key observations from the case of the regulation by FERC of US interstate gas pipelines are as follows.

– The structural characteristics of the sector (which influence the outside options available to purchasers), and the ability of FERC to facilitate the involvement of a number of purchasers (including intermediate users and large users), seems to generate some degree of collective bargaining power for downstream buyers. The regulation of local networks' end-charges may also provide additional impetus for local pipelines to become involved in the process.

– A wide range of parties is included in the process, and hence a wide range of views is accounted for. The buyers, while not homogeneous, would appear to have similar interests (for example, low transportation charges for using the common infrastructure). It may also be the case that negotiating terms to use a single pipeline is a more straightforward proposition than negotiating terms across a whole gas network.

– FERC's involvement in the negotiation processes is greater than the NMa's in the two transportation sectors relevant to the current study (eg, it provides the first settlement offer). However, in contrast to RPI – X regulation in the UK and elsewhere, the FERC process would still be classified as light-touch. Notwithstanding this, preparing the first settlement offer documents could still be regarded as requiring a significant amount of work.

– It would appear to be in FERC's interest to promote settlements between the parties. While FERC has the legal power to determine rates itself through litigation, this is unlikely to be in its own interest, given the costs involved in such a detailed process and the number of pipelines it regulates.

– The role of the regulator in the negotiate/settle process is, however, far from passive. FERC sets the rules of the game. In response to a request for the rate increase (from gas pipelines), the FERC plays an important role in framing the negotiation process, speaking to the parties, and encouraging agreement. Ultimately, where there is non-agreement, costly litigation would be triggered, in which (in this instance) the burden of proof would be on the gas pipeline to prove that a rate increase could be justified.

– According to the Littlechild study, the settlement process seems to run smoothly and result in fast outcomes. There are still costs involved in the process (for example, in preparing initial reports of 50–100 pages), although these are arguably less than under the litigious route.

It is not clear how complex the nature of outputs is in the case of gas pipelines compared with other sectors. If, for a new gas pipeline, there is only one price and one output (delivery of gas) to negotiate, this may be more straightforward than in the case of existing pipelines, which in turn may be more straightforward in sectors with multiple, more complex outputs (such as airports). This may also have assisted the negotiation process in the case of US gas pipelines.

A3 Light-touch regulation of New Zealand airports

The experience with seeking to make light-touch regulation work in this sector in New Zealand is particularly informative to the current study. Forsyth (2010) noted:

> Australia joined New Zealand in implementing a light handed form of regulation. This means that there is no explicit regulation of prices, but regulation could be imposed if performance is considered to be poor. Such a regulatory environment is rare around the world, though there are some instances of similar approaches being implemented recently, notably for Brussels and Copenhagen airports. The Australian and New Zealand [experiences provide] a useful case study of how light handed regulation works with airports.[123]

In the case of New Zealand, from the outset the airports were not subject to explicit price regulation. There was instead a requirement for airports to engage in consultation with users on charges and investment levels, and to disclose information. As such, the regime is somewhat cost-plus in nature; nonetheless, Part 4 of the Commerce Act 1986 allowed for the imposition of the sanction of a price control at any point. Indeed, as will be discussed, the Commerce Commission recommended in 2002 that formal (price) regulation be introduced—a recommendation that was not subsequently enacted by government.

A key point of contention in New Zealand is the extent to which airlines exert buyer power on the airports. While airport operators (including Auckland International Airport Limited, AIAL) emphasise that airlines have considerable buyer power, either individually or collectively, the Commerce Commission and the airlines have generally argued that this is not the case. A number of changes in legislation have occurred in recent years as a consequence of perceived problems with the regime.

Under the system of light-handed regulation, it is the airports, rather than the regulator, that set charges. Four key features of the New Zealand regime are outlined by AIAL:

> The light-handed regulatory regime for airports in New Zealand has been in place for almost 20 years. It is characterised by four principal features: consultation with substantial airline customers; information disclosure to ensure meaningful consultation and regular monitoring; the countervailing power of substantial airlines; and the availability of sanctions in the form of price control under Part IV of the Commerce Act 1986.[124]

However, as will be discussed further below, questions have been raised, in the 2002 Commerce Commission inquiry, and in further assessments by the New Zealand government and the Commerce Commission in more recent years, in relation to:

– the degree of countervailing buyer power present, and whether this overcomes the market power of the airports;

– the extent to which the consultation and negotiation regime has worked smoothly;

– the incentives under the regulatory regime for efficient CAPEX and for low prices; and

[123] Forsyth, P. (2006), 'Airport Policy in Australia and New Zealand: Privatisation, Light Handed Regulation and Performance', 'Comparative Political Economy and Infrastructure Performance: the Case of Airports', Fundacion Rafael del Pino, Madrid, September 18th–19th, p. 3.
[124] Auckland International Airport Limited (2006), 'Issue Brief: Airport regulation and pricing', November.

– the degree of flexibility that airports should have in determining input methodologies under Part 4 of the Commerce Act.

The 2002 Commerce Commission inquiry

Price controls were *very nearly* applied to Auckland Airport in 2002, when the Commerce Commission (which regulates airports among other sectors, and is also the general competition regulator) recommended this option to New Zealand government ministers following an inquiry held under Part 4 of the Commerce Act.

The Commerce Commission report, published in August 2002, examined the state of competitive pressures, and the performance to that point of the light-handed regulatory regime, at Auckland, Wellington and Christchurch International Airports. A key part of this was to consider whether sufficient countervailing power existed. In this regard, it was noted that.[125]

> the views of the airlines and the airports on the strength of the countervailing power of the airlines differed markedly. BARNZ agreed with the Commission's preliminary finding… that none of the three airports is likely to be significantly constrained by countervailing power of airlines under the current regime, and that the airlines stand to lose greater amounts than airports from withdrawing custom. In contrast, the airports considered that the Commission had not given sufficient weight to the regulatory regime, and to the countervailing power of the airlines.

The Commerce Commission concluded that, while there was some limited evidence of airlines' countervailing power, this, along with other constraints in the regime, was not sufficient to constrain airports' market power.[126]

> The current regulation of airports relies largely upon the countervailing power of airlines, the requirements on airport operators to consult with them before setting charges, and the threat of further regulation. However, analysis suggests that meeting demand for flights is the overriding factor determining which airport an airline flies to, rather than the costs of doing so, and that airlines' countervailing power is generally limited. Airport charges, while a significant cost for airlines, are unlikely to make the difference between an airline flying or not flying to a particular city, although there is some elasticity at the margin. However, there is some evidence that acquirers' behaviour constrains the airport companies at the margins, but it does not, by itself, prevent exercise or even abuses of market power.

Competition between the three major international airports was, the Commission concluded, 'not significant', with each operating in 'a separate, regional airfield services market in which it is able to exercise significant market power'. The airports were 'insufficiently constrained by the countervailing power of acquirers, the present regulatory regime, or by the potential for entry', and competition was not 'workable or effective'.[127]

The Commission recommended, under Part 4 of the Act, that regulatory control for airfield activities should be introduced for the largest of the airports—Auckland International. The Commission did not recommend the introduction of control for Wellington airport (provided that landing charges there were not significantly increased) and controls were not recommended for Christchurch airport.

The Commission also noted that other forms of control might also be considered—and that these might be less intrusive or result in lower regulatory costs. This was a matter for Ministers to consider.[128]

[125] Commerce Commission (2002), 'Final Report: Part IV Inquiry into Airfield Activities at Auckland, Wellington, and Christchurch International Airports', Part A main report, August, p.82.
[126] Ibid., p.18.
[127] Ibid., p.319.
[128] As part of implementing Part 5 (rather than Part 4) of the Act.

While the (then) Minister accepted the findings of the Commerce Commission, the need for a control for Auckland Airport (or indeed the other two airports examined by the Commerce Commission) was rejected. The rationale was that the net benefits of price control regulation, in terms lower charges for airlines and passengers, were not sufficient. However, it was suggested that the consultation and information disclosure regulations could be augmented to include a requirement to negotiate with—as opposed to simply consult—the major airline companies. It was also recommended that the Commerce Act be amended to enable the Commission to determine more readily what form of controls might be imposed as part of a control inquiry under Part 4 of the Act. The Minister agreed that competition between airports was limited, but that general competition legislation (the Commerce Act) continued to provide a safeguard against abuse of market power.[129]

Changes to airport regulation from 2008 onwards

A number of the modifications suggested by the Minister have been implemented, or at least considered, since. In particular, in 2007, the New Zealand government examined how a number of proposed changes to the Commerce Act, which affected various regulated sectors, would have an impact on the regulation of airports. In doing so, it was concluded that some core aspects of the light-handed regulatory regime were flawed.[130]

– **Information disclosure**—the regime required airports to disclose specified financial and performance information, while not specifying input methodologies or pricing principles. This was 'ineffective' as 'the absence of guidelines or methodologies limit[ed] transparency about regulatory issues [and the] disclosed information tend[ed] to be largely of the nature of general purpose financial statements.' Such disclosure was not 'robust' for assessing whether there was monopoly pricing and, even if there were meaningful disclosure, 'no government agency actively monitor[ed] the information'.[131]

– **Consultation requirements**—the regime required consultation with substantial customers before raising charges, and, for airports with annual revenues over $10m, consultation with substantial customers on CAPEX plans at least every five years. However, 'the statutory requirement is to consult, not to negotiate. Because airports have the right to make investment decisions and set charges unilaterally (after consultations) it is inevitable, absent an independent dispute resolution mechanism, or credible and timely threat of heavier handed regulation, that airports will tend to make decisions in their own interests.' Furthermore, 'the lack of pricing principles and binding input methodologies mean that these are a major source of [disagreement] between larger airports and airlines, along with the outcomes of consultation'.[132]

– **Pricing restraints**—under the Airport Authorities Act 1966, airports have the power 'to set charges as they see fit', subject to the threat of price control under the Commerce Act 1986. However, the threat of regulation was 'weak'. The Commission was not funded to undertake an inquiry on its own initiative, did not undertake price monitoring of airports, and there was likely to be government reluctance to undertake a new inquiry within a few years of the last one. Furthermore, inquiries and decision-making (and appeals) took many years. Even if a price control were eventually imposed, this would not recover past excess profits.[133]

Accordingly, the regulatory regime was deemed not to be 'a credible or robust regime for constraining the scope for exercise of airports' market power'. The report concluded:[134]

[129] For a discussion of these issues see New Zealand Government (2003), 'No Control Imposed on Airfield Activities', Media Statement from Hon Lianne Dalziel, Minister of Commerce, May, and the background papers published alongside the news release.
[130] Office of the Ministers of Transport and Commerce (2007), 'Commerce Act Review: Airports'.
[131] Ibid., para 19.
[132] Ibid., para 19.
[133] Ibid., para 19.
[134] Ibid., paras 5–7.

> Although an independent review of the claimed over-charging has not been undertaken, given the Commerce Commission's findings relating to market power of major international airports in its 2002 inquiry, a requirement for airports to consult only, and the power of airports to set charges unilaterally, there is a case for strengthening the current regime…The current weak information disclosure system should be replaced with meaningful disclosure requirements along with active monitoring of the disclosed information by the Commerce Commission…Consultants should [also] be engaged in 2008/09 to report on whether further regulation is warranted for airports, and whether the coverage of regulated airports should be widened (including the option of a negotiate/arbitrate regime). Any resulting legislative change would be implemented in time for the next five year pricing period due to commence on 1 July 2012.

The Commerce Amendment Act 2008 contained a number of revisions to the Commerce Act 1986 (specifically, Parts 4, 4A and 5). The five main changes affecting the airports sector were as follows.

– **Purpose statement**—the Part 4 regulatory provisions in the Commerce Act did not fit easily with the overall purpose of the Act—to 'promote competition'—as the regulation provisions were required where competition was either not possible or problematic. The lack of a separate purpose statement for the regulation provisions created uncertainty about what these were intended to achieve. In contrast, under the new Part 4 provisions, a common purpose statement for the regulated sectors was introduced. These 'purposes' included promoting outcomes consistent with competitive markets (including providing incentives to invest, innovate and make efficiency gains), while requiring suppliers to share gains with consumers and limiting excessive profits.[135]

– **Test for whether regulation is necessary**—a new test was introduced regarding when it would be appropriate to introduce regulation. Criteria included: 'There is little or no competition and little or no likelihood of a substantial increase in competition; there is scope for the exercise of substantial market power, taking into account the effectiveness of existing regulation or arrangements (including ownership); and the benefits of regulating materially exceed the costs and risks of regulating.' A full inquiry by the Commerce Commission would be required first, with decisions on whether and how to ultimately regulate resting with government Ministers.[136]

– **Disclosure and input methodologies**—under the new Part 4 provisions, there would be enhanced disclosure, based on binding 'input methodologies' set out by the Commerce Commission. The Commission would also monitor how airports set charges against non-binding pricing principles. The requirement to set out input methodologies upfront was seen as reducing regulatory discretion, and the methodologies would be binding on both the Commission and the regulated companies. Crucially, the Commission would be required to set out input methodologies for the calculation of the cost of capital, asset valuation, and common cost allocation. The methodologies would also cover regulatory methodologies, rules, processes, requirements and evaluation criteria. The Commission was required to set input methodologies for airports (and for electricity and gas networks) by June 2010, with a potential extension of six months.[137]

– **Types of regulatory sanction**—prior to the amendment of the Act, the only type of regulation envisaged by Part 4, in the event that formal regulation was introduced, was price control regulation. In addition to price controls, the new Part 4 introduced a range of alternative 'fit-for-purpose' forms of regulatory sanction: information disclosure, default/customised price–quality paths, individual price–quality arrangements, and negotiate–arbitrate.[138] Ministers noted that negotiate–arbitrate was a 'new, relatively

[135] See New Zealand Government (2008), 'Ministers welcome Committee report on Commerce Amendment Bill', press release, July 31st; and Commerce Commission (2010), 'Input Methodologies (Airport Services) Reasons paper', December.
[136] New Zealand Government (2008), op. cit.
[137] See ibid.; and Commerce Commission (2010), op. cit.
[138] Ibid.

light-handed form of regulation which may be suitable for suppliers with relatively few large customers. It requires a supplier to negotiate prices and supply agreements with its customers, with mandatory arbitration if they cannot agree'. Here the process for negotiation and any arbitration would be set by the Commerce Commission, with the Commission appointing an arbitrator if the parties cannot reach agreement. The criterion for arbitral awards would be to promote the purpose statement.[139]

– **Appeals provisions**—some stakeholders had argued that the old Parts 4, 4A and 5 provided only limited accountability for decisions made by the Commission, since most decisions were subject only to judicial review and not to an appeal against the underlying substance of a decision. Under the new Part 4, interested parties could appeal to the High Court against the Commission's infrastructure manager (IM) determinations on the basis of the merits of the decision and against determinations concerning customised price–quality paths.[140]

It was hoped that this process would improve transparency and increase buyer power. The Commission has acknowledged, however, that the extent to which sufficient countervailing power would emerge could be limited—for example, in relation to the requirement for airports to disclose/consult with airlines on cost allocation.[141]

> The presence of well-informed and active consumers may affect cost allocation outcomes (to the extent they desire different outcomes) through the exercise of countervailing power. Airports consult major consumers (ie, airlines) under the mandatory AAA pricing consultation requirement creating transparency around the cost allocation process and outcomes. However, Airports are only required to consult (as opposed to negotiate) on pricing and irrespective of airlines' views, may set prices as they see fit. For airlines to exercise significant countervailing power, they would need to have the ability to switch to a different airport…

These are important conclusions in the context of this study—suggesting that effective countervailing buyer power (in the sense of this eliminating SMP) is difficult for airlines to exert unless they can switch airports. Nonetheless, the Commission continues:[142]

> While in practice their ability to [switch airports] is limited for most of their flights, they may influence airports through other measures short of moving flights. This might include, for example, changing the frequency of scheduling, diverting international flights and reducing the dependency on a specific airport for transit purposes. Moreover, airlines' views may also carry weight with regard to Airports' decision-making processes on cost allocation as Airports are likely to have regard for the potential consequences of giving little or no weight to airlines' views. These could include more heavy-handed regulation (eg, price-quality or negotiate-arbitrate regulation), or a move to other less favourable bases of regulation for the Airports (such as a change from a dual till to a single till approach).

As such, in the system of regulation, emphasis is still placed on lesser degrees of countervailing buyer power emerging, and the credible use of alternative sanctions.

[139] New Zealand Government (2008), op. cit.
[140] See ibid.; and Commerce Commission (2010), op. cit.
[141] Commerce Commission (2010), op. cit.
[142] Ibid.

A4 User engagement in UK airports

Buyer power

Much has been written on the potential for airlines to exert buyer power in the airports sector. This is part of the reason why a number of airports in England are no longer subject to formal price caps—airlines can threaten to re-route to other airports, and certain carriers are 'must have' to the airport concerned.[143] For example, the CAA has noted:[144]

> The concentration of airlines at airports relative to network users in other industries (the more so with the continued development of alliances and mergers) means that airlines can have a strong position of countervailing buyer power. Moreover, many secondary airports represent very small businesses when compared to some of the major European carriers that operate from them.

As discussed in section 4 of the main report, the CAA[145] has further highlighted four factors (set out in OFT guidance[146]) that might contribute to buyer power being present in an industry:

- the buyer is well informed about alternative sources of supply and could readily, at little cost, switch substantial purchases from one supplier to another while meeting its needs;
- the buyer could start production of the item itself or 'sponsor' new entry by another supplier (eg, through a long-term contract) relatively quickly and without incurring substantial sunk costs;
- the buyer is an important outlet for the seller (ie, the seller would be willing to cede better terms to the buyer in order to retain the opportunity to sell to that buyer);
- the buyer can intensify competition among suppliers by establishing a procurement auction or purchasing through a competitive tender.

As per the OFT's guidance on buyer power, the CAA notes that size alone is not sufficient for buyer power to emerge; rather, buyer power 'requires the buyer to have choice'.[147] Following this, the CAA set out evidence that could be used to assess the degree of buyer power in the airports sector, including the alternative airports available to airlines; the net switching costs of the airlines; whether other airlines would be likely to take up airport capacity freed up by an airline that switched some or all of its operations; the importance of a given airline to the airport; and the multi-sidedness of the airport market.[148]

On switching costs specifically, the CAA (2011) notes the following as important determinants: the availability and configuration of infrastructure at an airport; the airline's business model; the willingness of the airline's main passenger groups to switch airports or sufficient passenger demand at alternative airports; potential competition from other airlines at alternative airports; availability of sufficient slot capacity at alternative airports; costs of setting up operations at alternative airports (and decreasing/closing operations at the current airport); potential for substitution to/from other modes, in particular from rail, for domestic and short-haul flights; and the potential impact of cargo services on the profitability of routes from/to particular airports.

[143] In addition to these effects, a constraint arises as there is often competition between rival airports per se (given existing airline routes), whereby consumers can choose between rival airports.
[144] CAA (2007), 'The CAA Response to DfT's consultation paper on European Airport Charges Directive', June.
[145] Ibid., p. 31, section 6.2.
[146] See Office of Fair Trading (2004), op. cit., as discussed in section 3 of the current study.
[147] CAA (2011), op. cit.
[148] Ibid.

The CAA also notes that airline buyer power might be affected by intermediaries, such as tour operators and travel agents, as this presents another level at which passenger demand may be 'bundled and used to exert buyer power on either airlines and/or airports', and that

> airline co-operations such as alliance agreements, code-sharing and interlining can also affect the degree of airline buyer power vis-à-vis airports, through the bundling of demand from a number of otherwise competing and potentially less well coordinated airline customers

The above highlights the importance of structural characteristics in determining the extent of buyer power (in particular, the ability of an airline to switch to an alternative airport), and the importance of exerting power through the relationships struck with other buyers.

Constructive engagement

In the airports sector, even where effective countervailing buyer power does not exist, in the sense that buyer power is sufficient to eliminate SMP, the CAA has sought to encourage negotiation between airports and airlines, rather than the regulator determining all aspects of the review. From 2004 onwards, this was taken forward through the use of 'constructive engagement'. The CAA noted:[149]

> Where airports possess substantial market power (at a level that may justify additional regulation), any regulatory intervention should recognise the potential for the commercial relationships between airports and airlines to be harnessed to facilitate regulatory decisions. As part of the current price control reviews for the designated UK airports the CAA has introduced a new approach, termed constructive engagement, designed to delegate elements of the review to be taken forward through negotiation between airports and airlines – within a clear regulatory context – so that outcomes more fully reflect users' needs.

There has been much debate on the extent to which constructive engagement has worked in the UK. It attempts to deal with the problem that regulated businesses have imperfect incentives to make the right investment decisions, and regulators have insufficient information or exercise to second-guess these decisions. The idea is that airlines and airports should be able to negotiate service levels and the investment programme required with little involvement from the CAA or the Competition Commission other than on specific issues (such as the cost of capital) and a final 'sign-off' on prices.

Constructive engagement with 'customers' has the potential for decisions to be made by those people who ultimately pay for these decisions. However, to work effectively, it has to be carefully designed. Arguably, important issues are as follows.

- The right questions have to be asked, especially in relation to trade-offs between priorities, and between service and price.
- Sufficient information must be given to intermediate users (airlines) and end-consumer representatives in accessible form for them to respond appropriately.
- The questions have to be directed to the right people; including potentially not only airlines, but other end-consumers and stakeholders who represent customers overall.
- Trade-offs between different intermediate users and different consumer groups also need to be captured.
- Proper account needs to be taken of the needs and preferences of future intermediate users and customers, rather than just current or past customers.

One of the first major attempts at this was the Constructive Engagement Process initiated by the CAA in a consultation in May 2004, in which the regulator sought a 'greater degree of shared ownership of the regulatory process and agenda by airports and airlines'.[150] The process was to be part of setting price limits for Heathrow and Gatwick Airports in 2008 and

[149] CAA (2007), op. cit., p. 17, para. 2.15.
[150] CAA (2004), 'Airport regulation: looking to the future—learning from the past', May, para 8.

for Stansted Airport in 2009. The inputs to be decided between the airports and airlines (confirmed in 2005) were to include: volume forecasts and capacity requirements; the nature and level of quality of service outputs; opportunities for OPEX efficiencies; the nature and scale of the CAPEX programme; and CAPEX efficiencies associated with the programme.[151] The CAA's role was intended to be reserved to facilitating constructive dialogue around these issues.

The plan was for the CAA to retain responsibility for assessing overall OPEX and CAPEX, the cost of capital and, ultimately, for setting prices. Perhaps recognising a potential disjoint between the interests of current and future parties, the CAA also required that, in their negotiations, airports and airlines took account of the views of users who might not be well represented in negotiations—including future airlines and passengers.[152] While ultimate responsibility for final decisions on inputs and for setting prices lay with the CAA, its preference was to incorporate the agreements negotiated so long as these met 'users interests overall'.[153]

Overall, the CAA considered that the constructive engagement process worked, at least to some extent, in the cases of Heathrow and Gatwick. Here, some consensus had been achieved between the airports and airlines on issues such as 'base' CAPEX, the treatment of non-regulated charges, and the scope for future CAPEX efficiencies, and traffic volumes (at Gatwick), although there were areas of disagreement. In contrast, the process at Stansted reached more of an 'impasse'.[154] The Competition Commission also noted that there had been 'little meaningful constructive engagement' at Stansted.[155]

Moreover, there were a number of problems with the constructive engagement process across the airports. The CAA and the Competition Commission became more involved than was planned in setting inputs and, ultimately, prices.

The Competition Commission, in its inquiry into the prices to be set for Heathrow and Gatwick, noted that constructive engagement was a positive development:[156]

> Agreement between BAA and the airlines is a far preferable way to decide the investment programme than relying on the judgement of ourselves or the CAA. Most of the airlines to whom we spoke also regarded Constructive Engagement as a significant improvement on previous levels of consultation, or consultation at other airports.

However, it also voiced a number of concerns. The constructive engagement process had continued throughout the six months of its inquiry. In this period BAA made 'substantial changes' to its future CAPEX programmes at both Heathrow and Gatwick, which was 'surprising' after a lengthy period of consultation and negotiation. There were also significant increases in the OPEX forecasts put forward by BAA during the inquiry (to improve security service standards). The consequence was that the CAA would need to examine these issues, and other issues, in detail before putting forward final proposals.[157]

According to the Commission, part of the problem relating to the CAPEX increases were weaknesses identified in BAA's CAPEX planning procedures rather than just the constructive engagement process per se.[158]

However, other concerns on constructive engagement included:[159]

[151] CAA (2005), 'Airport regulation: the process for constructive engagement', May, para 3.6, and diagram on p. 24.
[152] CAA (2004), op. cit., para 23.
[153] CAA (2004), op. cit., para 37.
[154] See, for example, Bush, H. (2007), 'Some issues in airport regulation', presentation at the Regulatory Policy Institute, Hertford Seminars in Regulation, May.
[155] Competition Commission (2007), 'BAA Ltd: A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)', September, para. 2.26.
[156] Ibid., para 4.15.
[157] Ibid., paras 4, 8, 2.31 and 4.7.
[158] Ibid., paras 4.12 and 4.16.

– significant information and resource asymmetries between BAA and the airlines, which provided BAA with the ability to 'divide and rule' (for example, on CAPEX);
– the impact of the proposed CAPEX programme on individual airlines, and on charges (including the share borne by different airlines in meeting these charges) was not clear in the consultations;
– the process was resource-intensive, with the potential to exclude small airlines while excessive weight might instead be placed on the views of larger airlines;
– there was a lack of a dispute resolution/arbitration mechanism at each of stage of the process. (The CAA acted as a passive observer since its position was that it should not intervene unless agreement had not been reached on the relevant points by the end of the process);
– there was lack of clarity on how BAA arbitrated between various airlines' views.

The Commission recommended that the CAA should address these issues. In addition, it noted that constructive engagement should be a continuous process rather than one confined to price reviews.[160] Since the reviews of Heathrow and Stansted, the CAA has been exploring lessons from the experiences to date of constructive engagement, and ways in which it could be improved (see below).

Nonetheless, there remain different views on the extent to which constructive engagement can work effectively in airports. Littlechild (2008) is a proponent of the approach, noting that, while there have been issues regarding implanting the process, improvements can be made. The constructive engagement process is less burdensome than more detailed forms of regulation (such as those present in other sectors in the UK), and offers the parties themselves the opportunity to search for a mutually acceptable solution. The Competition Commission's remedies could then 'lay the basis for more effective and extensive use' of constructive engagement in future.[161]

Toms (2008) is more sceptical. As part of the negotiation process, different airlines may not agree on what investment levels they would like to see in airport facilities (eg, baggage transfer), given their business models; the resources available to the parties vary greatly between the airport and the airlines (with landing charges accounting for a much lower percentage of income for the airlines); airlines may not press for capacity to be provided if this will facilitate future entry by rivals; and airlines' views may not represent final consumers' views. Regarding the past experience of constructive engagement, Toms also notes that neither the CAA nor the Competition Commission had a contingency plan in the event of no agreement. Since the main problems appear structural rather than procedural, even taking on board the Commission's remedies might not be sufficient to produce agreement or (if it does) improve outcomes.[162]

In 2010, the CAA commissioned an independent assessment of its Q5 airport landing charges review process. This involved seeking the views of different stakeholders. The report noted that there was support for the introduction of constructive engagement but that there were also problems.[163] In this regard, the CAA (2010) noted:[164]

> The framework of constructive engagement that the CAA put in place was a significant regulatory innovation for the airports sector, and more generally. There were therefore bound to be lessons for the future; and it should not be surprising that while some aspects worked well others worked less well.

[159] Ibid., para 4.19.
[160] Ibid., para 4.18.
[161] Littlechild, S. (2008), 'Regulation, over-regulation and deregulation', University of Bath School of Management, Occasional Lecture 22.
[162] Toms, M. (2008), 'Airports Regulation: a Case of Destructive Engagement?', Beesley Lectures on Regulation, Series XVIII, London, October.
[163] CAA (2010), 'Review of Q5 airport price control processes: Lessons for Q6', A report for the CAA by S. Jones, October.
[164] CAA (2010), 'Airport Regulation: Lessons learnt from Q5 Price Control Process and Improvements for Q6', CAA Consultation, October, para 3.5.

The regulator identified six key areas for potential change going forward: the purpose and output of airport/airline discussions; the scope of these discussions; the CAA's role in these discussions; process governance, information and timetable; interaction between airport/airline discussions and the price control review; and the role of passengers. Nonetheless, different stakeholders expressed different views on how these issues should be taken forward.[165]

A common theme in the study commissioned by the CAA was that a prerequisite for a successful engagement exercise is that the CAA should set out early the 'rules of the game', to avoid needless discussion (and potentially disputes) around process matters. Most stakeholders also supported a more active role for the CAA. However, while most airlines argued that the CAA should be 'in the room' for the majority of constructive engagement discussions, others disagreed.[166]

In general, therefore, considerable disagreement remains regarding the precise role of the CAA in the constructive engagement process.

[165] Ibid.
[166] CAA (2010), 'Review of Q5 airport price control processes: Lessons for Q6', A report for the CAA by S. Jones, October.

A5 GB rail sector experience

There is also ongoing discussion of whether, in the British rail sector, the TOCs are currently able to exert enough pressure on Network Rail, the not-for-dividend entity that owns and operates the track infrastructure used by the TOCs and freight operators.[167] One issue is the extent to which the operators can, or are inclined to, influence Network Rail's investment programme, or hold it to account for its investment decisions and for delivery of outputs.

At first glance, it might be expected that the exercise of buyer power by the TOCs in GB rail could be extensive, and contribute consistently to the incentives on Network Rail. There are a few large train operators in the sector, which in theory might seek to influence Network Rail, both directly and through the regulatory framework, on issues such as outputs, investment and track access charges.

In this regard, freight operators may have some influence. For example, DB Schenker (UK),[168] a freight operator, contributed a number of reports to the ORR during the 2008 periodic review of Network Rail's track access charges. This formed part of the evidence base available to the ORR when considering the scale of the efficiency targets to be applied to Network Rail over the period 2009 to 2013.

However, it is far less clear that franchised passenger operators exercise buyer power, for two main reasons. First, as regards the investment programme required in the rail sector, higher-level outputs are set by government and are then implemented by Network Rail, reducing the involvement of the TOCs in deciding on outputs (and ultimately the investment priorities) of Network Rail as part of the access charge review process.[169] Under the Railways Act 2005, the government defines the High-Level Output Specification (HLOS) it wishes to see delivered over a five-year period for a given level of subsidy provided to Network Rail (Statement of Funds Available, or SoFA). In turn, these outputs are reflected in the ORR's periodic review settlements for Network Rail. In the 2008 review, Network Rail's settlement included various high-level outputs to be delivered by the end of 2014 (HLOS1), covering safety, reliability, capacity and the delivery of some major projects. Network Rail is responsible for overseeing delivery of projects required to meet the outputs, and for monitoring progress against this.[170]

Second (and most substantively), the contractual arrangements between franchised passenger operators and the Department for Transport insulate each franchise from the financial effects of the ORR's track access charge reviews. While this reduces the risk faced by each franchise (increasing the value of the franchises to bidders, and therefore reducing taxpayer contributions to the sector), this severely reduces the engagement of franchisees in the access charges review process, the CAPEX programme that Network Rail will undertake, and the outputs that Network Rail should deliver.

Moreover, in combination with the (current) short franchise periods (typically seven years maximum), any new development of the network can be of limited interest to the franchisees. For example, in the case of a substantial station redevelopment, it might be expected that

[167] Oxera, in conjunction with Arup, was recently involved in a review for both the government (Department for Transport) and the rail regulator (ORR) on the future structure and regulation of the sector. The joint report is available at: http://www.railwaysarchive.co.uk/documents/rvfm-arup-oxera-industry-interfaces-300910.pdf.
[168] Formerly EWS.
[169] Strictly speaking, the projects developed to meet the government's output specifications are developed by Network Rail in consultation with the TOCs, but the decision criteria and final decision rests with the government and the regulator.
[170] While focusing on separate issues to the current study, for a further description of the HLOS and SoFA process, see Department for Transport and Office of Rail Regulation—project sponsors (2011), 'Realising the potential of GB Rail: Final independent report of the Rail Value for Money Study', Detailed report undertaken by Study Team, May.

franchisees would challenge Network Rail's (and other stakeholders') plans for the project. However, in practice the franchisees may manage their contractual risks in relation to the redevelopment, as opposed to acting in the long-term interest of the sector (as a by-product of acting in their own commercial interest).

The above case of passenger operators in Great Britain shows how, despite an industry structure that might appear consistent with generating buyer power, achieving a significant degree of countervailing buyer power can be limited by the overall framework for output and investment determination, and through the lack of a complete contractual relationship between downstream users (passenger train operators) and the upstream provider (Network Rail).

A6 Customer involvement in the GB energy sector and water sector in England and Wales

As part of the reform of regulation in the GB regulated energy network sector and water sector in England and Wales, the respective regulators of these sectors have proposed that 'customers' become more involved in the process of setting prices—termed 'customer engagement' or 'customer involvement'. This proposal is driven by a desire to place consumers more at the heart of the regulatory process, and for companies to focus on their relationships more with 'customers' than with the regulator. A greater role is envisaged for reflecting the views of intermediate users, large end-users, and (collectively) smaller domestic consumers. The views of customers would be taken into account from the start, and throughout, the price review process.

In both the energy network and water sectors, ex ante RPI – X regulation is used, in which the regulator determines final prices for a set period of time. However, the process has become quite detailed, with the respective regulators requiring more information and undertaking ever more detailed analysis. With the appropriate incentives, increased customer engagement provides an opportunity to reduce the level and information required by the regulator, and the level of detailed analysis it undertakes. The regulator can retain the threat of using a more detailed approach, to be used if there is inadequate customer engagement.

As part of its RIIO (formally named RPI – X@20) project, Ofgem introduced 'stakeholder engagement', in which a wide range of changes to the regulatory regime were considered (and, more recently, implemented).[171]

In the water sector in England and Wales, Ofwat has published papers on how 'customer involvement' could be enhanced in the price-setting process, although some key issues remain to be decided.[172]

Arguably, unlike in the context of the current study, in both energy and water in Britain, the process of seeking to engage customers more is as much about improving the information available to the regulator, as it is about increasing customer buyer power (or enhancing the incentives to make companies more responsive to their customers). For example, as regards information, have companies done enough to find out what their customers want? Are the outputs to be delivered by the companies what customers value and want? Is the investment programme put forward by the company justified? Under an RPI – X framework, the regulator can then determine whether the investment programme and outputs proposed by the company in its business plan are justified and, if not, remove certain elements from price limits. Where a company can demonstrate that it has sufficiently engaged customers, the quantity of information required by the regulator, and the level of detailed analysis undertaken by the regulator, can be reduced, lowering regulatory costs.

As regards buyer power, the process is arguably intended, by proxy, to put pressure on companies to make them more responsive to their customers' needs (in terms of prices, investment and outputs), both at price control reviews and on an ongoing basis. However, the regulators concerned have not sought to claim that the process itself creates or enhances buyer power.

[171] See, for example, Ofgem (2010), 'RIIO: A new way to regulate energy networks', Final Decision, October; Nixon, H. (2010), 'Its name is RIIO: a new model for regulating Britain's energy networks', *Agenda*, November; and Bucks, P. (2011), 'Rules of engagement: involving customers in UK regulatory settlements', February.
[172] See, for example, Ofwat (2010), 'Involving customers in the price-setting process – a discussion paper', October; and Ofwat (2011), 'Involving customers in decisions about water and sewerage services', consultation, April.

In general, a number of considerations need to be borne in mind when increasing user involvement in price-setting in the water and electricity sectors (or, indeed, any network sector).

– **Industry structure and degree of choice**—measures to increase customer engagement need to bear in mind what industry structure, market incentives and customer choice are present already or could be present in the future. Structurally, the GB energy sector is characterised by a high degree of separation, and hence a number of intermediate users and interested parties at various interface points with network companies. By contrast, the water sector in England and Wales is currently vertically integrated (although some degree of retail separation might occur in future). The sectors therefore differ in the extent to which intermediate users exert pressure further up the value chain.

– **Representativeness**—a problem in undertaking collective customer engagement is that, in the absence of individual choice (for example, between different firms offering different quality levels), the final outcome does not necessarily represent what each customer wants, particularly when there are different types of customer. The regulator thus needs to ensure that a balanced approach is taken between the views of different customers and stakeholders.

– **Institutional responsibilities**—clearly defined responsibilities for the various aspects of the customer engagement process are required. The regime should encourage companies to become more consumer-focused, looking more towards their customers rather than 'providing a case to the regulator'. However, an independent body or bodies may also need to be established to ensure that user views are represented (in particular, collective representation of smaller users).

– **Timing of customer involvement**—in the price review process, the order and phasing of the consumer engagement processes need to allow customers' views to be adequately captured. Otherwise, customer wants may take second place to other issues, or come into the process too late to have their views taken on board.

– **Scope of customer involvement**—customers can be engaged on, or negotiated settlements can focus on, a selection of outcomes, outputs and expenditure, rather than necessarily all aspects of the price control package. It is necessary to decide which aspects should be subject to the customer engagement process, which should be the responsibility of companies, and which the responsibility of the regulator (while noting that, under price cap regulation, the regulator has the power ultimately to set prices).

– **Regulatory regime incentives**—consideration also needs to be given to how customer engagement interacts with the development of output measures, and how companies are incentivised to deliver outputs. As a minimum, regulatory incentives should not conflict with encouraging customer engagement. However, there might be explicit incentives to engage customers—for example, by rewarding or penalising companies financially through a performance scheme based on the quality of engagement; or by fast-tracking (and engaging in less scrutiny of) company business plans where meaningful consultation has been demonstrated.

In what follows, some further detail is provided on Ofgem's work on increasing stakeholder engagement in electricity and gas networks. In its RIIO project, Ofgem observed that energy networks were insufficiently focused on their customers. To rectify this, interdependent initiatives were proposed in its RIIO 2010 final decision paper, including the following.[173]

[173] Ofgem (2010), 'RIIO: A new way to regulate energy networks', Final Decision, October.

– **Output-focused approach**—more meaningful (and broader) customer-based output measures should be developed and set out upfront at price reviews, against which companies would be expected to deliver and be financially rewarded or penalised. These would include a 'broad measure of customer satisfaction', reliability, safety and social obligation outputs. Emphasis would be placed on primary outputs—those that are relevant to the service levels customers actually experience (for example, customer complaints and interruptions). The priorities and level of each output would, in turn, be set through stakeholder engagement (see below). Companies would face rewards and penalties according to their performance against the outputs. The quality of stakeholder engagement would itself be one of the outputs subject to the incentive regime (as part of the customer satisfaction measure, which would also involve a customer satisfaction survey and performance against complaints).[174]

– **Enhanced stakeholder engagement**—energy networks should engage more proactively with the customers of network services and other stakeholders, to inform the outputs and investment plans put forward by network companies. Stakeholders include downstream suppliers, independent networks, end-consumers, local authorities, developers, and environmental groups. Ofgem emphasises that engagement should be on an ongoing basis, rather than undertaken only at price control reviews. While not being prescriptive, the regulator notes that a range of techniques will be required to obtain stakeholder views, given their differing levels of interest on particular issues, the size of each stakeholder group, and their available resources. The regulator has also indicated what issues networks might engage on—for example, in electricity distribution, reliability and willingness to pay. The regulator will also undertake its own engagement exercises, and has set up forums for engagement (see below). Importantly, Ofgem suggests that government could play a role in enhanced engagement, and that representatives might attend stakeholder meetings to provide clarity on relevant government policy.[175]

– **Proportionate assessment of business plans**—Ofgem has also sought to provide incentives for networks to engage with stakeholders, part of which is through the output-performance regime (explained above). Another important element is that companies that put forward 'well-justified' business plans may be fast-tracked, with less scrutiny of their proposals by Ofgem. Such a business plan would need to focus on output delivery, present a clear and well-evidenced case for the proposals and, crucially, demonstrate 'effective engagement with a range of stakeholders'. In this last respect the networks 'should demonstrate how they have taken account of the views of stakeholders in developing their plan, setting out what engagement was undertaken and how the engagement informed the company plan'.[176]

As regards the last of these initiatives, Ofgem emphasises that, in assessing whether a business plan has involved adequate stakeholder engagement, it would consider two key issues: the 'credibility of engagement' (the range of stakeholders whose views had been sought, the information provided to stakeholders and the form engagement took); and the 'impact of engagement' (in that networks need to set out how they had used the views

[174] Ibid., Chapter 4. In its 2009 Electricity Distribution Price Control Review, Ofgem had previously announced its intention to introduce rewards and penalties for companies based on their ongoing performance against a 'Broad Measure of Customer Satisfaction'. In turn, this would be informed by a customer satisfaction survey, complaints, and an assessment of the quality of stakeholder engagement (stakeholder views on the approach to engagement and outcomes from engagement). The last of these would include the views of a number of relevant stakeholders, including suppliers, independent networks, independent connections providers, local authorities, developers, and other interested parties. See Ofgem (2009), 'Electricity Distribution Price Control Review, Final Proposals', December.

[175] Ofgem (2010), 'RIIO: A new way to regulate energy networks', Final Decision, October, Chapter 3, and accompanying 'Handbook for implementing the RIIO model', Chapter 3.

[176] Ibid.

expressed through engagement and, if stakeholder views have not been incorporated, robust reasons must be provided).[177]

Ofgem has also indicated how it might assess these issues in practice. It would examine the range of stakeholder views that had been sought, the issues on which their views had been sought, and the way the engagement was carried out. It would inform this exercise through a comparison with its own engagement with stakeholders, or with the engagement undertaken by other network companies. In addition, peer review by stakeholder representatives (for example, through a Consumer Challenge Group) might take place, to stress-test the quality of engagement. Ofgem would examine whether engagement included information on the price implications for different types of consumer.[178]

It is of note that, under the GB system of energy regulation, final decisions on the price control rest with Ofgem. In this regard, Ofgem has stated 'the interests of consumers and other stakeholders may differ but we will remain responsible for balancing these interests in line with our duties, having particular regard to the needs of existing and future consumers.'[179]

Ofgem is already implementing parts of its RIIO programme as part of the forthcoming gas distribution and electricity and gas transmission price control reviews. For example, it has been developing various forums for engagement, including open forums, a Consumer Challenge Group, and through the commissioning of consumer research.[180] It has published its approach to how it intends to assess best-practice business plans, including whether these would be fast-tracked.[181]

There are a number of practical issues to be resolved, however, in terms of how engagement takes place going forward in the various energy network sub-sectors.

[177] Ofgem (2010), 'RIIO: A new way to regulate energy networks', Final Decision, October, Chapter 3.
[178] Ibid., Chapter 7.
[179] Ofgem (2010), 'Handbook for implementing the RIIO model', para 3.3.
[180] Nixon (2010), op. cit.
[181] Ofgem (2011), 'Decision on strategy for the next gas distribution price control - RIIO-GD1', March.

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