Anticompetitive Contracts in the UK Pay-TV Market

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Introduction

BSkyB has dominated the UK's pay-TV industry since its inception more than a decade ago. As Britain's, and Europe's, largest pay-TV company it has also been under the near-continuous scrutiny of European regulatory and competition policy authorities since at least 1994. It came as no great surprise, therefore, when the Office of Fair Trading (OFT) launched its current Competition Act inquiry into the company's wholesale pricing (and other) practices late last year. The stated purpose of this investigation is to determine whether BSkyB's position in the pay-TV market is having a damaging effect on competition. The clear focus, however, is on the contracts under which BSkyB resells so-called "premium programming" to its competitors in the UK's pay-TV retail market.

When the authors were asked by one of BSkyB's competitors to advise on their response to the OFT inquiry, we felt that an economic analysis of BSkyB's controversial contractual arrangements with its competitors was long overdue. The purpose of this article is to describe the results of that analysis, and our recommended remedies for the competition policy problems diagnosed. [1]

The UK Pay-TV Market

Pay-TV companies in Britain compete by acquiring the rights to broadcast programming and selling subscriptions to viewers. The companies' products are differentiated both in terms of the programming packages they offer, and in the means of delivery. There are three types of pay-TV network currently operating in the UK: the satellite network run by BSkyB with approximately 53% of UK subscribers, local cable networks with 37% of subscribers,[2] and a digital terrestrial network operated by the most recent entrant, ITV Digital.

Each company offers various packages of "basic" programming, one of which must be taken by all subscribers. "Premium programming" - typically major sports events and Hollywood movies - can then be purchased for an additional monthly fee. Access to premium programming is widely viewed as being crucial for attracting customers. As Armstrong (1999) notes: "premium programming, where BSkyB currently holds an extremely strong position, is the major driver of subscriptions."[3]

As the first entrant in the pay-TV market, BSkyB early on acquired the exclusive broadcasting rights to practically all of the Hollywood studios' first-run films, and to the majority of the major sports events available to pay-TV. BSkyB purchases these rights under exclusive vertical contracts with upstream rights sellers, and then resells the programming to its downstream competitors for variable, or per subscriber, fees.

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[1] For a more detailed treatment the reader is referred to our paper "Contracts and Competition in the Pay-TV Market" (Harbord and Ottaviani, 2001).

[2] The two largest are NTL and Telewest.

[3] There is strong evidence that the acquisition of premium programming rights confers monopoly power on broadcasters. See Monopolies and Mergers Commission (1999) and Harbord, Hernando and von Graevenitz (2000).

For example, the UK's Premier League has sold the exclusive rights to broadcast live football matches to UK pay-TV companies in periodic auctions since 1992.[4] BSkyB has so far always acquired these rights, and has resold the programming to its retail competitors for a per subscriber monthly fee. The implications of these contractual arrangements for competition in the pay-TV market have been debated fiercely - and often - in various regulatory inquiries, but are not yet well-understood.

To address these issues we undertook an economic analysis of competition in the pay-TV market using a simple model inspired by the current market situation in the UK. Our purpose was to gain an understanding of how different contractual arrangements for the sale and resale of premium broadcasting rights would affect downstream competition in the pay-TV market, the distribution of rents between upstream rights owners and downstream pay-TV companies, and overall economic welfare.

Our point of departure was a recent paper by Oxford economist Mark Armstrong (Armstrong, 1999) which analyses competition in the pay-TV market in the context of a classic Hotelling model of duopoly price competition.[5] This model captures quite well a number of the key features of the pay-TV market, and of the market for premium programming in particular: (i) downstream price competition is between firms with differentiated products; (ii) the acquisition of premium programming increases the attractiveness of a company's package to subscribers; and (iii) failure to obtain access to premium programming when other firms do results in a loss because other firms' products become relatively more attractive and they attract a larger share of subscribers.

In Armstrong's model, pay-TV companies compete initially to sell basic programming to customers. One firm - the “industry leader” - is assumed either more efficient than its rival, or else to have previously acquired a more attractive package of basic programming.

When the rights to some type of premium programming (e.g. Premier League football matches) become available in an upstream market, the outcome of the sale of the rights has a substantial impact on the competitive balance in the downstream retail market. A pay-TV firm which acquires the *exclusive* rights to the premium programming obtains a competitive advantage over its rival, and the rival suffers a loss - a “negative externality” in economist’s parlance. Competition to purchase the rights can therefore be modelled as an auction with “externalities” in which downstream competition is affected by the outcome of the auction.[6]

In the absence of the resale of premium programming, the industry leader's willingness to pay for the rights in the upstream market exceeds that of its smaller rival, hence it will always acquire the rights in an auction. Armstrong considers what would happen if the industry leader were able to resell the programming to its downstream retail competitor for a fixed fee (i.e. a lump sum payment), and concludes that reselling would *never* take place since it would reduce the competitive advantage of the industry leader. Although the smaller downstream firm, and its consumers, would benefit from having access to the premium product, this gain is less than the industry leader's loss in competitive advantage from reselling. Hence reselling will typically be welfare enhancing, but not privately profitable, when resale contracts are restricted in this fashion.

We extended Armstrong's analysis by allowing downstream pay-TV retailers to resell premium programming obtained under an exclusive vertical

[4] Harbord and Binmore (2000) discuss these auctions. Cave and Crandall (2001) provide an overview of the role of sports rights in the pay-TV market.

[5] The Hotelling model is widely used by economists to study competition in a variety of market settings, and most recently, network access pricing. See especially Laffont, Rey and Tirole (1998).

[6] See Jehiel and Moldovanu (2000) for an analysis of such auctions.

contract for variable, or *per subscriber* fees, and obtained strikingly different conclusions. We found that reselling via per subscriber fees *will always occur* when the exclusive rights are originally purchased for either lump sum or per subscriber fees from the upstream rights seller, and that this can have profound effects on the nature of competition in the pay-TV market. Our analysis thus predicts that reselling will take place under precisely the conditions observed in the UK market. Like Armstrong's analysis, our model also predicts that the upstream rights seller will prefer exclusive to nonexclusive contracts with downstream firms.

Effects of Resale Contracts on Downstream Competition

The key result of our analysis is that downstream competition to supply premium programming to consumers will be *ineffective* when resale contracts specify per subscriber rather than lump sum (i.e. fixed) fees. Reselling for per subscriber fees means that all consumers in the market will be served, thus avoiding one of the contracting inefficiencies identified by Armstrong. It does so, however, in a manner which does not dissipate the monopoly rents available from the sale of premium programming. Resale for per subscriber fees allows a downstream firm which acquires the exclusive rights to prevent the dissipation of downstream profits by increasing the marginal cost of its competitor, i.e. by *raising rivals' costs*, while simultaneously increasing the *opportunity cost* of serving its own customers. This increased opportunity cost has exactly the same effect as an increase in the reselling firm's marginal costs, and gives both firms an incentive to increase their retail prices to monopolistic levels.

The intuition behind the opportunity cost effect is easily explained. Given a resale contract, any revenues the reselling firm could earn from reducing its retail price in order to attract its rival's customers come at the expense of the resale revenue it would otherwise have received from its rival's subscribers. This reduction in resale revenues - an opportunity cost - has exactly the same effect as an increase in the reselling firm's marginal costs, giving it a strong incentive to maintain a high retail price in equilibrium.

The resale price thus acts as an effective mechanism for relaxing downstream price competition and extracting consumer surplus from the premium product. In fact, in our model, the highest resale fee which can be implemented extracts all of the surplus available from selling the premium good to consumers, and this surplus accrues initially to the reselling firm. Consumers are therefore deprived of the benefits of competition. *It is as if the premium programming market were monopolized by a single firm, and consumers would prefer a ban on resale contracts, even though this typically reduces social welfare.*

If instead the premium programming were sold by both downstream firms who faced "uninflated" marginal costs, i.e. if both firms acquired the rights for a lump sum fee, fierce downstream competition to sell the programming to consumers would result in these profits being competed away, and the benefits captured by consumers. This observation suggests that one remedy for the competition problem identified would be to regulate the way in which premium programming rights are sold and resold.

Effects of Resale Contracts on Upstream Competition

Another conclusion of our analysis is that an upstream rights seller such as the UK's Premier League will usually prefer to sell programming rights exclusively to one downstream firm, rather than nonexclusively to all firms. Exclusive sale - followed by resale - maximises the monopoly rents available for distribution between the upstream seller and the downstream retailer which acquires the rights, thus increasing downstream firms' willingness to pay. Nonexclusive sale, on the other hand, typically extracts less surplus for both the upstream rights seller and the downstream firms.

Given that sports and other programming rights are almost always sold under exclusive contracts to

pay-TV companies, our analysis therefore predicts two key features of competition in the UK pay-TV market, i.e. the form of the premium programming rights sale and resale contracts.

Related Literature

Although our conclusions were derived from a specific model of competition between pay-TV companies, which abstracts from many potentially relevant features of the industry, they are not entirely novel, and similar results have been shown to hold in other contexts. The well-known papers by Salop and Scheffman (1983), (1987) and Krattenmaker and Salop (1986) are standard references on raising the costs of competitors via the sale of an essential input, and have obvious relevance here.

The most closely related results, however, come from the literature on patent licensing, especially in papers by the noted US antitrust economists Michael Katz and Carl Shapiro.[7]

Katz and Shapiro (1985) considered a model in which the owner of a cost-reducing innovation may license it to a rival firm for a fixed fee, a per unit charge (i.e. a royalty rate) or under a two part tariff. The two firms then compete a′ la Cournot in a homogeneous product final goods market. Licensing for a fixed fee to a rival firm is not always in the interest of the licensor in this model, for the same reason that resale of premium programming rights for a lump sum fee is not always profitable in our model. Katz and Shapiro also considered variable fee, or per unit, licensing contracts and found that there is always a variable fee licensing agreement which is preferred by both firms to the ‘no licensing’ alternative.

As Shapiro (1985) explains, a firm which possesses the rights to a cost-reducing innovation can use licensing agreements (or resale contracts) with its rivals to prevent downstream competition from dissipating the potential monopoly rents, and in extreme cases to implement a collusive agreement. The latter occurs when the licensor imposes a very high per unit royalty rate on its rival, forcing it to reduce its output to zero. A fixed fee can then be used as a “bribe” to induce the licensee to accept the output reduction.

The main difference between the Katz and Shapiro analysis and our own is that, in their model, a per subscriber fee induces firms to produce exactly the same outputs they would have in the absence of a resale agreement, thus sharing some of the benefits of the cost-reducing innovation with consumers. A negative fixed fee (i.e. a bribe), is required to compensate the rival for reducing its output further, and increasing the market price to the collusive level.

In our analysis, a per subscriber resale fee induces both firms to increase their retail prices. The resale contract results in both firms producing the same outputs they would have in the absence of the premium programming being available, while retail prices increase by the willingness to pay of consumers for the premium product. Per subscriber resale fees therefore extract all of the rents from the availability of premium programming, and consumers would be better off in the absence of resale contracts altogether.

The key point, however, is that both the analyses of Katz and Shapiro and our own reveal the anticompetitive effects which may arise from licensing or resale contracts which specify per subscriber charges. Such contracts dampen downstream price competition and allow the reselling firm - via raising rivals’ costs and, in our model, its own opportunity costs - to avoid the rent dissipating effects that licensing for a fixed fee would induce. Monopoly power is thus extended downstream and consumers may receive little or no benefit from the innovation or premium programming.

[7] Shapiro served as Deputy Assistant Attorney General for Economics in the Antitrust Division, U.S. Department of Justice during the Clinton Administration. Katz served as Chief Economist to the Federal Communications Commission from 1994-96.

Remedies

Our analysis identified a clear competition policy concern in BSkyB's resale contracts with its retail competitors in the pay-TV market. We therefore considered a number of possible remedies, at least one of which has already been tried by the UK regulatory authorities:

- forced 'rights splitting', or forced divestiture of premium programming rights
- direct regulation of the resale price
- forced 'rights sharing', or resale of premium programming for lump sum fees
- a ban on exclusive vertical contracts

Forced rights splitting had no effect on pricing, profits or consumer welfare, at least in our model. Splitting the exclusive rights between the two downstream firms simply creates two downstream monopolies in the place of one. It does not differ, therefore, from the case in which the exclusive rights are sold to a single firm. Since this remedy has recently been used in the pay-TV market, this demonstrates the importance of undertaking a more rigorous market analysis.[8]

Our other remedies proved more efficacious. Direct regulation of the resale price has the effect of dividing the surplus created by the premium programming between firms and consumers. A ban on exclusive vertical contracts - equivalent to forced rights sharing for lump sum fees - likewise transfers the social benefits of premium programming from firms to consumers, but does so by intensifying downstream competition. In more realistic versions of the model, this procompetitive remedy also increases aggregate social welfare.

[8] During the most recent auction for Premier League broadcasting rights, the OFT intervened to ensure that the rights were split into a package of pay-per-view rights and non-pay-per-view rights, with no company permitted to win the auctions for both packages.

Conclusions

Our analysis of competition in the pay-TV market predicts that premium programming rights will be sold originally under exclusive vertical contracts and then resold by the acquiring firm for per subscriber fees to its competitors. The resale of premium programming for per subscriber fees has the effect of relaxing downstream price competition, providing incentives for both downstream firms to increase their prices at the expense of consumers. The profits created by these contractual arrangements are initially captured by the reselling firm, and then at least partially transferred upstream to the original rights monopolist.

Our model thus predicts a number of the key features of competition in the UK pay-TV market, and in particular the form of the rights selling and resale contracts. The key conclusion for competition policy purposes is that these vertical and horizontal contracts may actually harm consumers compared to the case of no resale, in which some consumers do not get served.

In an extension of this analysis we considered what happens when resale contracts specify wholesale prices for premium programming which are proportional to retail prices, as occurs under the so-called 'DTH linkage' in BSkyB's contracts with its competitors (see Office of Fair Trading, 1996). We found that such 'retail price proportional' resale contracts are worse for consumers than the simpler resale contracts we considered initially. When the reselling firm is able to commit itself to a proportional resale pricing scheme this results in even higher equilibrium profits and prices and lower consumer welfare. This is because when the reselling firm reduces its retail price in order to attract its rival's customers, this not only results in a reduction in its resale revenue via the opportunity cost effect described above, it also reduces the resale price directly via the DTH linkage. This makes price competition to gain market share at the expense of rivals still more costly, and hence less attractive.

Proportional resale pricing, as currently practised by BSkyB, therefore appears to be an even more effective mechanism for softening downstream price competition and extracting consumer surplus from both premium and basic programming. Indeed, under this type of resale pricing consumers may actually be worse off than they would have been had the premium programming never been made available.

The clear message for the current OFT investigation is that a continuation of its 'light-handed' regulation of BSkyB's wholesale prices via oversight of its industry 'ratecard' will not be sufficient. The form of the rights selling contracts themselves – both upstream and downstream – is at the heart of the competition problem, and needs to be addressed.

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