Fight Cartels or Control Mergers? On the Optimal Allocation of Enforcement Efforts within Competition Policy

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Abstract

This paper addresses the interaction between the enforcement of merger control and anti-cartel policies, given the ensuing incentives for firms' behavior in terms of choice between cartels and mergers. We examine the outcome of the competition policy along these two axes, allowing for a more or less severe and accurate enforcement of each, and draw conclusions on their optimal combination.

Keywords: competition policy, merger control, fighting cartels

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Extended Abstract

Economic historians have long now become aware that following the 1890 Sherman Act concentration increased significantly in a large number of U.S. industries in the late nineteenth century, making necessary the passing of the Clayton Act 25 years later. This is part of the empirical evidence suggesting that in cartel-prone industries firms resort to mergers when cartels become a less viable alternative, and it basically implies that horizontal mergers and cartels may be seen as alternative ways of coordination for firms in order to increase profitability for those involved.

Two branches of the competition policy directly address either mergers or cartels. The question we raise in this paper deals with their interaction in terms of incentives provided for firms to choose mergers over cartels or vice-versa, because the outcome of the competition policy enforcement w.r.t. mergers and cartels depends on this private choice. We examine the optimal allocation of enforcement powers and resources between merger control and cartel fighting, so as to infer the optimal profile of the competition policy enforcement. In short, we argue that achieving complete cartel detection is not optimal, given the resulting outcome of merger control. In addition, the the trade-off leading to the optimal enforcement of both policies basically depends on the cost of cartel detection, the social loss from industrial coordination between poorly efficient firms (be it price fixing or horizontal merger) and the social gain from mergers leading to efficiency gains.

A growing body of evidence supports the fact that firms trade mergers and cartels for one another, depending on the relative focus of competition authorities on either merger control of cartel fighting. On the one hand, when mergers become harder to achieve, cartel activities are adopted instead, as Neumann (1995) argues for German industries such as cement, food processing, and machine building. On the other, whenever cartel formation is restricted, firms tend to turn to mergers instead. The American example of the Sherman and Clayton Acts is confirmed in the UK by the outcome of the Restrictive Trade Practices Act (1956), which triggered a merger wave by outlawing cartels[1].

[1] Based on the analysis of duration for a sample of international cartel in the 1990s, Evenett et al (2002) argue that joint ventures and mergers are among the different measures adopted by firms for survival, in cartel-prone

The choice to resort to merger instead of cartel, or the reverse, obviously depends on the current enforcement of the competition policy, to the extent that the latter modifies the relative profitability of these two options. Firms do not inevitably prefer mergers over cartels on account of the illegality of this conduct and the penalties they may face. This is all the more so that undertaking mergers is costly, albeit legal, especially because the possible efficiency gains required to justify the concentration may fail to materialize afterwards. Basically, if not prohibited by law, cartels provide a low cost alternative to consolidation.

In this paper we take a normative stand and examine the optimal allocation of enforcement efforts on behalf of the competition agency between merger control and cartel fighting.

Explicitly, we first study the optimal mix in terms of resources allocated to fighting cartels and the severity of merger control within the current setting for the latter, i.e. the *ex ante* notification and assessment of merger projects. Then we take the reasoning one step further, and examine this relationship between cartel fighting and merger control (either substitutability, or complementarity) in a different framework, allowing us to model both the severity and accuracy of the merger policy.

For these purposes, we model the firms' decision to either join a price-fixing cartel or notify and undertake a horizontal merger. As already mentioned, horizontal mergers and price agreements can be looked upon as alternative ways for firms to achieve profitable coordination, knowing that the former is legal but costlier and the latter is illegal but less expensive. The relative profitability of the two options will depend on the probability for cartels to be detected and convicted, as well as on the fixed cost of merging and the probability to achieve the cost savings guaranteeing a higher post-merger joint profit.

Cartel fighting is imperfect in our model, and the probability to convict a cartel will depend on the amount of resources allocated to this branch of the competition policy, knowing that resources are costly. The cost of resources used for fighting cartel will be used to model the severity of the fight against price agreements.

The enforcement of merger control may also be imperfect, at least to the extent that one considers the current policy setting. Explicitly, the *ex ante* assessment of horizontal mergers

industries where cartel formation is restricted.

(without any *ex post* review) inevitably gives rise to both type of errors, i.e. clearing anti-competitive mergers and banning cost-efficient pro-competitive ones. This occurs on account of the asymmetric information between the competition agency and the merging partners on the actual probability for a given notified merger to be a cost-efficient one. Basically, this means that the competition agency deals with a population of merger projects that differ along two dimensions: the degree of cost savings that can be obtained through the merger, and the riskiness of the project itself (modelled through the probability to actually achieve the cost savings).

The main trade-off that we put forward in this framework is the following. Whenever more resources are invested into fighting cartels, firms will be prompted to undertake horizontal mergers instead. Given the imperfect merger control, this may very well be a welfare-decreasing strategy. On the other hand, increasing the severity of merger control - which is not the same as its accuracy) means that the least socially-profitable merger projects will turn into price-fixing cartels, which by the same token is likely to lower expected welfare. As before mentioned, the opportunity to resort to a more or less lenient cartel-fighting strategy and merger enforcement policy will depend on the cost of resources available, and on the level of welfare gains and losses that are likely to obtain.

In the case of the current *ex ante* merger policy enforcement, we are able to provide the following results. Depending on the relative cost of resources allocated to fighting cartels, the public actions towards horizontal mergers and price agreements may be either substitutable or complementary. As long as an intense cartel detection is not affordable, due to a high cost of budget resources, we are able to show that the amount of resources actually allocated to this task will be higher if merger control is not too strict - hence the substitutability between the two. In turn, when it is possible to intensify cartel detection thanks to low-cost resources, we find that the amount of resources actually allocated to fighting cartels increases with the severity of merger control - hence the complementarity between the two.

Basically, these results rely on the two effects that follow from the investment of more resources into fighting cartels. On the one hand, there is a detection effect, ensuring that more cartels are detected and punished. On the other, there is a deterrence effect, since some firms will forego price agreements and choose to notify a horizontal merger instead. The former cartel-scrutiny effect will be unchanged whatever the choice of merger control enforcement, more or less lenient. But the latter, deterrence effect will have different consequences depending on the severity of merger control.

Explicitly, if the cost of cartel-fighting resources is high, then increasing their amount is likely to prompt more horizontal mergers which have a high probability to reduce price, albeit only moderately. A stricter merger control will miss this positive effect, by preventing such medium-efficient mergers, hence intensifying cartel-fighting goes along with a more lenient merger control. On the contrary, if the cost of cartel-fighting resources is relatively low, then the affordable stricter cartel scrutiny will be all the more necessary that a stricter merger control is enforced, because this will lead less efficient merger projects to become price-fixing agreements. In this case, a more effective merger control can only be obtained at the cost of a stricter cartel policy.

In terms of welfare, we check our initial intuition that the higher the social gain from cost-saving merger projects, the better to enforce a stricter merger policy. Given the above results, this is to be accompanied by a lenient cartel policy if the cost of detecting cartel is quite high, and on the contrary, by a less lenient cartel policy if the latter is affordable.

The second part of the paper will examine the relationship between merger control and cartel fighting when allowing for a better accuracy for the former. So as to be able to model this change in our initial framework, we will actually consider an alternative set-up for merger control, still involving an *ex ante* notification but based on an *ex post* review instead of the *ex ante* assessment. Such a merger enforcement requires a commitment on behalf of the merging firms regarding the *ex post* market price, in short, some price-cap not to be exceeded, least a penalty be paid. We intend endogenize the price-cap level, in addition to the previous choice of resources allocated to fighting cartels, so as to be able to conclude on the competition policy optimal mix between the severity towards price-fixing agreements and the severity as well as accuracy of merger control enforcement.

Note that although extremely rare in practice (only in the US, at a very small scale[2]), the

[2] It has been argued for instance that since the ex-ante assessment is subject to so much uncertainty, the antitrust authority should carry out an ex-post audit to determine whether efficiencies have really materialized and been passed on to consumers, and if this is not the case, the authority should obtain appropriate remedies to restore competitive conditions. Brodley (1996) quotes a hospital merger case (the case Pennsylvania vs. Providence Health Sys., Inc., quoted by O'Connor (1995).) where the consent decree negotiated between the

possibility of an *ex post* merger review may be examined at least on a theoretical level, as a possible new instrument in the tool-box of merger policy (see Röller (2001)). Besides, it is quite close to the notion of contingent merger remedies (to be contracted on *ex ante*, and only be employed *ex post* if certain conditions are met), as well as to that of remedies as an incentive contract to screen merger projects advocated by Werden et al. (2005).

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parties and the Attorney General provided that the merging parties pay to the Treasury the shortfall from the alleged efficiencies, if the latter do not materialize and benefit patients within five years.