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Standards of proofs in sequential merger control procedures*

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Abstract

We model merger control procedures as a process of sequential acquisition of information in which mergers can be cleared after a first phase of investigation. We find that the enforceability of clearance decisions at the end of the first phase is unattractive to the extent that it prevents the authorities to use their expectations as to whether evidence gathered in the first phase will be confirmed in the second phase. This deprives the first phase of its potential as an effective screening mechanism. We also find that when clearance decisions in the first phase are enforceable, a different (higher) standard in the first phase is only desirable when Phase I decisions are captured by merging parties (as opposed to complainants).

JEL classification: K21, K40, L40

Keywords: merger procedure, competition policy

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1 Introduction

Merger control in many jurisdictions proceeds in two stages. In the first stage, following a notification, the authority acquires initial information relevant to the competitive assessment of the merger. On the basis of this information, the authority decides whether to clear the merger or to delay the decision to a second stage in which additional information is acquired. Intuitively, the first stage in a two-stage review serves the role of screening out unproblematic mergers. In the EU, this sequential process is organised in the "Phase I" and "Phase II" of the Commission's merger review procedure.¹ Similarly, the merger reviews in the US by the Federal Trade Commission and the Department of Justice proceed in two stages. Following a merger notification, the US authorities have 30 days to decide whether to issue a "second request" upon which they will review the merger in depth.

In Phase II, the Commission needs to take either a clearance or a prohibition decision, depending on whether it considers the transaction is compatible with the Common market². The standard of proof is formulated in terms of "balance of probabilities" and both decisions are enforceable in the sense that they can be appealed in Court.³ In Phase I, the Commission can clear mergers if they are compatible with the Common market but the applicable standard of proof is the absence of "serious doubts", which is a stricter standard for clearance.⁴ Only the decision to clear a merger in Phase I is en-

¹Art 6 of the Merger Control Regulation enjoins the Commission to decide (after 25 working days) (i) that the proposed concentration does not raise serious doubts regarding its compatibility with EU law (Art 6.1(b)) or (ii) that the concentration raises serious doubts regarding its compatibility and initiate Phase II (Art 6.1(c)). The standard of proof in Phase II is not articulated as such in the merger regulation. However, it has been clarified by the General Court and the Court of Justice in Tetra Laval/Sidel and Sony/BMG judgments, both at the General court and at the ECJ.

²The compatibility with the Common market is defined by the 2004 revision of the merger regulation in terms of whether the merger leads to a significant impediment to effective competition, and in particular to the creation or strengthening of a dominant position.

³The balance of probabilities is the only standard of proof which is consistent with symmetry - so that it applies both to prohibitions and clearance. See Versterdorf (2004) for a discussion.

⁴In the recent appeal to the clearance of the Microsoft/Skype merger, the General Court (case T-79/12) adopted language suggesting that the standards of proof in phase I and phase II were identical. This statement is surprising as it does not give effect to the very formulation of Article 6 of the merger regulation. It is not entirely clear what the

forceable, as a decision to open a Phase II investigation cannot be challenged in Court. The fact that clearance decisions in Phase I can be challenged implies that the Commission needs to be able to substantiate the absence of serious doubts on the basis of evidence collected in Phase I.

Against this background, consider a merger in which at the end of the Phase I investigation, the Commission is satisfied that current evidence indicates that the transaction would not be anti-competitive with regard to the balance of probabilities standard, possibly with remedies offered by the parties. At the same time, the evidence collected and assessed in Phase I does not remove all serious doubts (a stricter clearance standard) that the Commission may have. There are strong indications, however, including from interviews with the market participants—most relevant customers and non-merging rivals—that a further investigation in Phase II would not uncover any new evidence that could support a prohibition in Phase II on the basis of a less strict clearance standard. Hence, the Commission would like to clear the merger in Phase I. Given, however, that the clearance decision in Phase I can be appealed in Court, the Commission faces a trade off. It may clear the merger in Phase I, with proposed remedies, despite outstanding doubts, saving on a costly Phase II investigation, but be exposed to the risk of a Court challenge. Or it may open a Phase II investigation which is highly likely to lead to a clearance even if the merging parties offer less substantial remedies in Phase II than they have in Phase I. Inevitably opinions will diverge, between those in charge of the Commission’s resources and those in charge of defending the Commission in Court in case of an appeal. One way to approach the dilemma, might involve seeking remedies from the parties that would address those theories of harm for which conclusive evidence has not yet been gathered or assessed. This would save enforcement cost and provide reassurance to the Commission about a possible legal challenge of its early clearance. And if the parties are sufficiently keen on resolving the matter promptly, they might indeed provide broader remedies. The plot thickens if there are active complainants with private agendas such as the acquisition of assets from the parties, that raise speculative concerns during

Court meant to say however. At paragraph 46, the Court acknowledges that the merger regulation has a specific standard of proof for phase I decision. The Court then notes that the substantive criteria (significant impediment to effective competition) is the same in phase I and phase II. The Court then continues by merely stating that the standards of proof are the same. Hence, it might very well be that the Court merely meant to say that the standard for clearance is the same in the two phases.

Phase I. In those circumstances, to get an early clearance, the merging parties may be led to offer remedies that involve precisely the assets that the complainants sought the acquire in the first place; the Commission may well accept them, yet such remedies may not contribute to a better outcome for consumer welfare.⁵ This would not be an optimal outcome of a merger review procedure. More generally, the imposition of a strict and enforceable standard in Phase I deprives the initial review of its screening function, which depends on whether the evidence in Phase I is likely to be confirmed in Phase II.⁶ Whether this is the case involves an informed judgement that cannot be taken into account because of enforceability.

To study the effects of different standards in the two phases of a merger review procedure and of the role of the enforceability of clearance decisions in Phase I, we develop an economic model. In the model, the Commission's assessment of the effects of a merger is represented by a probability distribution over a range which includes negative values associated with anticompetitive mergers and positive values associated with procompetitive mergers. We represent the standard of proof in Phase I ("serious doubt") as an upper bound on the cumulative density of this distribution over the negative segment.⁷ The authority will therefore have serious doubt if the probability that a negative realisation occurs exceeds some threshold. We denote that threshold by α . To fix ideas, one can think of this threshold to be at 10%. A standard of proof formulated in terms of balance of probabilities ("more likely than not") in our model again corresponds to a threshold 1/2 for the cumulative density over the negative realisations. In Phase II investigation, a merger

⁵The opposite situation in which the Commission cannot prove to the required standard in Phase I that the merger is anticompetitive but anticipates that the second Phase investigation will uncover evidence to the effect, does not lead to the same tradeoffs, as a decision not to clear in Phase I cannot be challenged in Court. The Commission can thus open a Phase II investigation on the basis of its anticipation of what will be uncovered in Phase II.

⁶In our model, the belief held by authority about the way in which the evidence will change in Phase II is independent of the initial assessment. Hence, there is no correlation between the prior probability that the merger is anti-competitive in Phase I and the probability that that the evidence in Phase II will confirm that the merger is anticompetitive. Of course, the inefficiency stemming from the enforceability of the Phase I standard would be larger with a positive correlation (as the screening function of Phase I would then be more effective).

⁷In line with prior literature, we formulate the decision in terms of probabilities and not in terms of expected values (see Heyer 2005).

is therefore cleared if the authority finds that the probability that it will be anti-competitive is less than $1/2$.

When a merger is notified, the authority will form a prior probability distribution over the possible values of the merger to consumers (that is, over different degrees of how harmful or beneficial the merger is to consumers). We model the gathering of evidence in the second stage as a process in which the authority acquires information in the form of signals. The signals truncate the support of the prior distribution of the value of the merger from above (in case of a negative signal) or from below (in case of a positive signal). The extent to which the support is truncated represents the precision of the market investigation in the second stage. We assume that the authority will have some beliefs with respect to the evidence—future signals—that it would obtain in the second stage (in particular, with respect to whether the support will be truncated from above or from below, and the extent to which it will be truncated). These beliefs can be rationalized as the information which the authority has in the first stage, but that needs to be verified by further investigation. The beliefs could be formed upon an initial review of economic submissions from the parties or complainants which the authority did not have sufficient time to assess or verify in detail. We represent the fact that the "serious doubt" threshold is enforceable in the EU by requiring that the authority can only use verifiable evidence that can be challenged in Court to clear a merger in Phase I; the authority has to ignore any beliefs about the signals (evidence) that would be forthcoming in the second stage.

Our main results can be summarized as follows. First, we find that enforcing a clearance standard in Phase I does not allow for an efficient use of information as it prevents the authorities to consider in their clearance decision the expectation that they have formed about the evidence that they would uncover in Phase II. In contrast to the EU procedure, in the US, a decision not to issue a second request is practically impossible to challenge in Court and therefore the US authorities can take these expectations into account when making this decision. Second, assuming that a standard is enforced in Phase I, we find that using the same standard in both phases would improve consumer welfare in the absence of political economy considerations. This arises because it is only the decision to clear a merger in Phase I that is enforceable – the decision to proceed to Phase II cannot be challenged. As a consequence, it is best to allow a benevolent agency to use its discretion as much as possible with respect to clearances and this is achieved by enforcing the balance of probability standard in Phase I. However, if the scrutiny exer-

cised by the Court is asymmetric, in the sense that it is less likely to uncover and sanction capture in favor of clearance (presumably by the merging parties) than capture against clearance (presumably by complainants) a stricter standard of proof in Phase I may be attractive.

2 Model

After the merger notification, Phase I of the investigation starts. At the start of this phase, the authority has a prior distribution F over the possible outcomes of the merger in terms of consumer welfare $[-1, 1]$.⁸ The prior reflects the evidence collected in Phase I. As such, it does not include any belief of the authorities about the evidence it might collect if the investigation proceeds to Phase II. In line with the merger regulation, we assume that if the merger is not cleared in Phase I, the investigation automatically proceeds into Phase II.

In Phase II, additional evidence is acquired. We model this process by assuming that the authority acquires a pair of signals, $l \in \{-1, 1\}$ and $s \in [0, 1)$, whereby l indicates the signal direction (that is, whether the evidence indicates worse or better merger quality relative to the authority's prior) and s indicates how good the evidence is in terms of the precision with which the authority can establish the quality of the merger. In particular, receiving the signal s means that all outcomes above s (for $l = -1$) or below $-s$ (for $l = 1$) are impossible. Notice that the more precise the signal is, the smaller s is. For $s = 0$ the authority knows with certainty that the merger is either bad ($l = -1$) or good ($l = 1$). The cost of the signal is an increasing and convex function of its precision $k : [0, 1) \rightarrow (0, +\infty)$ with $k'(s) < 0$ and $k''(s) > 0$ reflecting the time and effort that the authority needs to invest in the investigation.

In Phase II assessment, the authorities incorporate signals that arrive during that stage (additional evidence) to update the prior distribution of the possible outcomes. We assume that this takes the form of a simple Bayesian updating procedure. That is, given the pair $\{l, s\}$, the posterior distribution G has its support $[\min\{l, -s\}, \max\{l, s\}]$ and is computed as

$$G(x) = \begin{cases} \frac{F(x) - F(-s)}{1 - F(-s)}, & l = 1; \\ \frac{F(x)}{F(s)}, & l = -1. \end{cases}$$

⁸With some mean m and variance σ^2 .

One feature of the posterior distribution is lower variance relative to the prior distribution, $\sigma_G^2 < \sigma^2$. Another feature is that the expected value is shifted in the direction indicated by the signal l : for $l = -1$, $m_G < m$; for $l = 1$, $m_G > m$. The merger is cleared in the second stage if $G(x) < 1/2$.

The signal described above proxies evidence about the value of the merger that the authority uncovers in the second phase. The authority will, however, at the end of the first stage, also have formed beliefs about what direction this evidence is likely to take if it continues to investigate. These are the prior beliefs (at the end of the first stage) about the direction of the signal and we specify them by a binary distribution that puts probability b on realization $l = 1$ and, correspondingly, probability $1 - b$ on the realization $l = -1$. Now we can write the prior distribution of the merger quality that incorporates the beliefs of the authority by combining them with existing evidence summarized in F :

$$B(x) = \begin{cases} (1 - b) \frac{F(x)}{F(s)}, & x \in [-1, -s); \\ (1 - b) \frac{F(x)}{F(s)} + b \frac{F(x) - F(-s)}{1 - F(-s)}, & x \in [-s, s); \\ 1 - b + b \frac{F(x) - F(-s)}{1 - F(-s)}, & x \in [s, 1]. \end{cases}$$

The EU procedure is characterized by an exogenously determined threshold value α such that for $F(0) < \alpha$ the merger is cleared in Phase I. In the model, α is a threshold probability that the merger ends up harming consumers. Finally, we assume that Court upon appeal will check, without making any error, whether the applicable standard has been met, i.e. whether $F(0) < \alpha$. The Court will annul all clearance decisions for which the verifiable evidence is insufficient. As a consequence, the authority in Phase I will only based its decision on verifiable evidence. In the next section, we analyse the implications of a separate and enforceable decision making threshold in Phase I.

3 Enforceability of Phase I decision

In this section, we show that the enforceability of a Phase I standard comes at a cost. In particular, such a standard reduces expected consumer welfare relative to the first best in which decisions whether to clear in Phase I maximise expected consumer surplus. In the absence of enforceability, the maximisation of expected consumer surplus is a natural benchmark as the

authority is unconstrained by the mechanisms of accountability. In those circumstances, the very notion of a standard of proof is moot (as a standard of proof is only meaningful if it can be enforced). We first compare the decisions in Phase I with those that it believes would be taken in Phase II and subsequently consider the consequence in terms of welfare.

First observe that for any given $F(\cdot)$, b , s , there is a unique value of the threshold probability α that a merger harms consumers that is consistent with the beliefs of the authority about the outcome of additional (second stage) investigation. This threshold is given by :

$$\alpha = \frac{F(s)(1 - F(-s)(1 - 2b))}{2((1 - b)(1 - F(-s)) + bF(s))}.$$

Indeed, the consistency between the two decisions requires :

$$F(0) = \alpha \Leftrightarrow B(0) = \frac{1}{2}.$$

This condition states that when the merger is (not) cleared at the end of the first stage (Phase I), the authority must also believe it would have (not) cleared it at the end of the second stage (Phase II), or vice versa. Looking at the expressions for the updated prior $B(x)$, we get

$$(1 - b) \frac{F(0)}{F(s)} + b \frac{F(0) - F(-s)}{1 - F(-s)} = \frac{1}{2},$$

which using $F(0) = \alpha$ after a rearrangement gives the value of α presented above.

The observation implies that if a single threshold α is applied uniformly for all merger cases, one can expect that it will systemically diverge from the threshold that would ensure a consistent application of the authority's beliefs about the evidence that an additional investigation is likely to uncover. That happens because both the beliefs as well as the prior distribution F vary from case to case and would thus require a different threshold value to ensure consistency.

It is intuitive that a hypothetical procedure that allows the authority to take account of the beliefs in Phase I about the signals on the likely direction and precision of evidence that would be received in Phase II is superior in terms of expected consumer surplus. The expected value (consumer welfare)

of clearing the merger (taking into account the beliefs on the direction of the signal) in Phase I is:

$$V = \int_{-1}^1 x dB(x).$$

When the merger is not cleared in Phase I and pushed into Phase II, the expected value of the merger is determined according to the following expression:

$$\begin{aligned} V_{no} = & b \mathbb{I} \left(\frac{F(0) - F(-s)}{1 - F(-s)} < \frac{1}{2} \right) \int_{-s}^1 \frac{x dF(x)}{1 - F(-s)} \\ & + (1 - b) \mathbb{I} \left(\frac{F(0)}{F(s)} < \frac{1}{2} \right) \int_{-1}^s \frac{x dF(x)}{F(s)} - k(s), \end{aligned} \quad (1)$$

where the first term is the expected value in case the merger is cleared in the second stage after a good signal and the second term is the expected value if the merger is allowed after a bad signal. \mathbb{I} is an indicator function that takes the value of 1 if the condition in the brackets is satisfied and 0 otherwise.

Observe that for a given precision of the signal, s , the expected consumer surplus from proceeding to a Phase II investigation, V_{no} , is the same under both procedures. Now observe that for each prior F there exist a threshold α_1 such that the merger is cleared with a higher standard of proof in Phase I despite the fact that it would have been optimally prohibited ($V_{no} > V$) or such that the decision is postponed to Phase II despite the fact that it would have been optimally cleared in Phase I ($V_{no} < V$). Therefore, for any standard of proof which applies uniformly to all mergers, any authority implementing this standard in Phase I will have to either clear some mergers in Phase I or proceed to a Phase II investigation when it would not optimally do so. An unconstrained benevolent authority uses information in a more consistent way and will perform better in terms of welfare. Even though it is always possible to find a decision rule and standard of proof that replicates the optimal decision for any given merger, applying the same rule across mergers will necessarily be inefficient.

In our stylized model, decisions based in part on beliefs rather than solely on evidence is desirable. This implies that having enforceable decisions in Phase I may not be attractive and it is interesting, from this perspective, to observe that it is in practice very difficult to challenge decisions not to send a second request in the US.⁹ This arises because US authorities do not have to

⁹See Kovacic, Mavroidis and Neven (2014) and Tucker (2013)

issue a formal decision supported by a full reasoning, so that plaintiffs would have difficulties to formulate a precise challenge. The fact that the European Commission cannot take its beliefs into account also creates a dissonance between the decision that it takes and the decisions that stakeholders within the institution believe they should take.

At the same time, having decisions in Phase I that cannot be challenged may not be desirable as the decisions would be open to various forms of capture. Assuming then that accountability of the antitrust authority is a desirable feature, we first ask whether the "balance of probability" standard of proof in Phase I could be superior in terms of welfare when compared to the stricter "reasonable doubt" standard currently in place. Second, we ask whether a procedure could be devised that would at the same time allow the authority to take account of beliefs in Phase I, while remaining challengeable in court so as to provide a measure of accountability of the authorities' decisions.

4 Identical standards across the two phases

We now analyze the first question: whether the "balance of probability" standard of proof in Phase I could be superior in terms of welfare when compared to the "reasonable doubt" standard. We assume, in line with reality in the EU, that Phase I clearance decisions are bound by a specific standard of proof and based entirely on evidence (as opposed to beliefs). We thus assume that if the evidence collected until the end of Phase I is not sufficient for triggering Phase II on the relevant strict clearance standard in Phase I, $F(0) < \alpha$, the merger is cleared. We further assume that the Court, in addition to checking whether the standard has been respected, also makes the agency accountable in terms of potential capture. That is the Court would annul decisions that use unsupported arguments in favor or against clearance. In other words, the accountability exercised by the Court is equally effective with respect to risks of capture in favor of clearance and against it. This implies that we can model the authority as unbiased and acting as a benevolent agent (in the implementation of the rules that is subject to). We will relax this assumption later.

There are 3 possible outcomes in the merger review procedure following in Phase II. We evaluate alternative rules in each case.

The first possible outcome in Phase II is that the merger is prohibited

regardless of the signal. This will happen when

$$\frac{F(0) - F(-s)}{1 - F(-s)} > \frac{1}{2}. \quad (2)$$

The authority will typically be in this situation when the Phase I assessment identifies the merger as likely anticompetitive and when the signal is relatively imprecise (that is, s is large). Observe that a necessary condition for a prohibition in Phase II regardless of the signal in the second phase is $F(0) > \frac{1}{2}$. Indeed, if the distribution after having received a positive signal is still such that the cumulative probability over negative realisation is greater than $\frac{1}{2}$, it must be greater than $\frac{1}{2}$ before the signal is received. This implies that if we set $\alpha = \frac{1}{2}$, the authority in Phase I cannot wrongly clear a merger which would have been prohibited in Phase II regardless of the signal (evidence) received in that phase. In these circumstances, it does not matter for expected welfare whether the standard of proof in Phase I for clearance is absence of "reasonable doubt" or "balance of probability" – the two are equal in terms of consumer welfare.

The second possible outcome is that the merger is allowed in Phase II regardless of the signal (evidence) received. This will happen when

$$\frac{F(0)}{F(s)} < \frac{1}{2}. \quad (3)$$

The authority will be in this situation when Phase I investigation identifies the merger as likely procompetitive and, as before, when the signal received is relatively imprecise (in other words, when Phase II investigation would not significantly reduce uncertainty of the assessment). A welfare maximizing antitrust authority would like to clear the merger in the first phase in these circumstances. The condition for clearance

$$k(s) > 0$$

is always satisfied as it is in the interest of the authority to avoid the unnecessary costs of delays from gathering and processing information. In this case, setting $\alpha = \frac{1}{2}$ (balance of probability) rather than at a lower (more stringent) level (reasonable doubt) as it currently is, would improve welfare.

The third possible outcome is that the merger is allowed in Phase II if the signal is good, but prohibited if it is bad. This will happen if the following two conditions are satisfied: $\frac{F(0) - F(-s)}{1 - F(-s)} < \frac{1}{2}$ and $\frac{F(0)}{F(s)} > \frac{1}{2}$. A welfare maximizing

benevolent authority without any constraints on the standard of proof in Phase I would clear the merger if

$$(1 - b) \int_{-1}^s x \frac{dF(x)}{F(s)} > -k(s), \quad (4)$$

which has an intuitive explanation. The optimal clearance in Phase I is more likely for higher (welfare) value of the merger in case of bad signal; for lower probability of a bad signal; and for higher cost of delaying the decision to Phase II. The authority will typically be in this situation when (i) the signal that it expects to receive in Phase II is sufficiently precise (so that the evidence gathered in Phase II is discriminating) and (ii) the investigation in Phase I does not identify the merger as either anticompetitive or procompetitive with a significant degree of certainty. In those circumstances, it is best in terms of welfare to give the authority maximum discretion with respect to the decision that is constrained by enforceability. Since it is only the decision to clear that is enforceable, giving the authority maximum discretion requires that the standard is the balance of probability, i.e. the same as in Phase II. This is achieved at no cost under the assumption that the authority acts as a benevolent agent as a consequence of the accountability exercised by the Court.

The matter will be different if the accountability exercised by the Court is not equally effective with respect to capture in favor of clearance and against. In those circumstances, reducing to the constraint associated with enforceability through Court proceedings will not be optimal. In particular, if the accountability exercised by the Court is weaker with respect to capture in favor of clearance (for instance, because it is harder to detect), the authority's decisions will deviate from the maximisation of consumer surplus and lead to clearance in circumstances in which it would be optimal to do so. It may then be attractive to increase the standard of proof in Phase I to compensate for this bias.

Therefore, we find that in the absence of political economy considerations, when the authorities cannot rely on their belief with respect to the outcome of the Phase II investigation, it is always better to implement the same standard of proof in Phase I. A higher standard in Phase I is only justified if the court exercises less control on the Commission for type II errors relative to type I errors.

5 Accountability of the authority for Phase I decisions

We now turn to the second question: is there a better way to design the merger review procedure and a Court review, that allows the authority to take decisions in Phase I optimally and yet provides a measure of accountability of Phase I decisions. We search for a procedure which forces the authority to form beliefs which are not systematically biased and where the authorities do not have complete discretion. Such a procedure should allow for the test of the beliefs that the authority used when clearing the merger in Phase I.

There are two ways in which the procedure could be designed. First, accountability could be exercised with respect to process. That is, Courts could check whether the authority formed the beliefs correctly. In such a procedure, a Court challenge of a clearance in Phase I would be adjudicated on the basis of parameters F, b, s and $k(s)$. If $F(0) < \frac{1}{2}$ and the signal was deemed by the authority correctly to be imprecise or very costly to obtain¹⁰, then the decision to clear the merger in Phase I would be upheld. Otherwise, the decision would be annulled. In other words, the decision to clear the merger would be upheld if (i) the parties to the merger and third parties diligently provided all the required information, (ii) the complainants have been given sufficient time to provide evidence to support their concerns and these have not been established to the required standard as it is now applied in Phase II and (iii) the authority had sufficient time to assess that evidence.

The second way would involve testing the beliefs using post-clearance evidence. That is, the plaintiff appealing a Phase I clearance decision would be able to rely on evidence which the authority could reasonably obtain and assess in a Phase II review in bringing its appeal. Such a procedure would not expose the authority to undue legal risk as annulments of its decisions do not carry any other legal sanctions. At the same time, it would provide a straightforward way to test the authority's decisions.

6 Conclusion

This paper has developed a model of merger review procedure as a sequential process of acquisition of information. We find that a two-stage merger review

¹⁰In the sense of (2), (3), and (4).

with a stricter and enforceable standard for clearance in Phase I does not effectively serve as a screening tool for potentially unproblematic mergers. This is because the risk of a legal challenge of a Phase I clearance forces the authorities to reject or discount their expectations about the additional evidence that it would collect in Phase II. In addition, we find that when the decisions are enforceable, it is never attractive to have a higher standard—such as the absence of reasonable doubt—for clearance in Phase I in the absence of a biased accountability by the Court in favor of clearance.

Because our model does not include remedies, we have left out some important considerations that firms will have in a merger procedure with a stricter standard in Phase I. For instance, the merging firms may be led to offer remedies in Phase I that will be accepted by the Commission even though it is satisfied that with a high likelihood Phase II investigation would indicate that these remedies are not necessary. The parties will do so when the cost of delay is significant.

These circumstances, in which there is a dissonance between the decisions and the beliefs regarding the decision that should be taken, can also be manipulated by complainants. For instance, a complainant interested in buying assets from the merging parties might raise issues in Phase I that are sufficiently credible for the Commission not to neglect them but difficult to disprove without a full investigation. The complainants might thus lead the parties to offer remedies which solve these hypothetical issues such that the Commission will be in a position to clear in Phase I. These issues could be further investigated by including, in the model, strategic interactions in the provision of information between the Commission, the parties and the complainants and strategic interactions in the submission and market tests of the remedies.

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