

## *Interim Measures in Antitrust Investigations: An Economic Discussion*

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After nearly two decades of dormancy, the issue of when and how to apply interim measures (IMs) in antitrust investigations has been brought back into the spotlight. In both Europe and the United States, IMs – accelerated procedures for awarding injunctive relief to plaintiffs – have been used only infrequently in antitrust matters. This reluctance has been driven largely by a fear of “false positives” – that is, an IM forbidding conduct that will ultimately be found legal at the end of an investigation.

The recent resurgence has been driven by the corresponding fear of “false negatives” – allowing anticompetitive conduct to continue unchecked during an investigation, and thus generating harm that cannot be compensated for. It has also been concentrated largely in the fast-moving digital sector, where network effects can accelerate both the growth and the demise of competitors. For example, some commentators criticized the six years that it took for the European Commission (EC) to conclude its investigation into Google Shopping, claiming that, by the time the investigation had ended, many rival comparison shopping sites had grown too weak to compete.

Especially in this market, the IM decision needs careful treatment. For that reason, it is helpful to consider the insights provided by a simplified economic model of IMs. This model can help guide the decision-making process when considering whether to impose IMs. It is also flexible: As different jurisdictions apply different criteria to determine when to impose an IM, the model can be adapted correspondingly.

In what follows, I will

- Present the basic concepts that inform the IM decision
- Present a simplified economic model of the decision rule
- Explain some of the benefits of an IM regime, as well as the important role that asymmetry plays
- Offer a glimpse of how IMs work in practice
- Outline considerations related to the particular use of IMs in digital markets

### 1. Basic Concepts

I begin with some basic economic concepts that will be relevant for the discussion of IMs.

#### 1.1. A balancing act

An authority or court must balance the risk of **over-enforcement** (imposing an IM when the investigation will find that no anticompetitive conduct has occurred, and hurting defendants unnecessarily) and **under-enforcement** (not imposing an IM when the investigation will find that anticompetitive conduct has occurred, thereby missing the opportunity to limit harm). The risk of over-enforcement is called a **Type I** error, and that of under-enforcement **Type II** error.

Competition authorities and courts need to assess both the likelihood and the cost of a mistake, and balance the two alternatives. This calculation – essentially, of the expected harm of the decision – is crucial.

## 1.2. Urgency

Not all situations warrant IMs – only “urgent” situations. What does that mean in this context?

While the standard for urgency varies by jurisdiction, it generally characterizes situations where harm is currently happening (or is imminent). If the harm is not imminent, it is optimal to wait so that a more informed decision can be made, thereby lowering the risk of error.

## 1.3. Irreparability

IMs are appropriate only in situations where the harm is irreparable, meaning that it cannot be compensated at the end of an investigation. Three conditions are necessary for reparability:

- The harm is measurable
- The parties are able to compensate one another
- The legal system can ensure full compensation to all parties

If the harm can be reversed or repaired (i.e., compensated), it is optimal to wait until a final decision is reached, making an IM unnecessary.

It should be noted that harm can occur to both the plaintiff/society and to the defendant, though in some jurisdictions the harm to the defendant is not always considered in the laws governing the application of IMs.

## 2. Optimal Decision Rule

Taking these basic concepts into account yields the following formula for deciding whether to use an IM:

An IM may be considered when the expected irreparable harm (to plaintiffs and consumers) from incorrectly failing to impose IM outweighs the expected irreparable harm (to defendants and consumers) from incorrectly imposing IMs.

This rule, known as the **Optimal Decision Rule**, can be expressed mathematically:

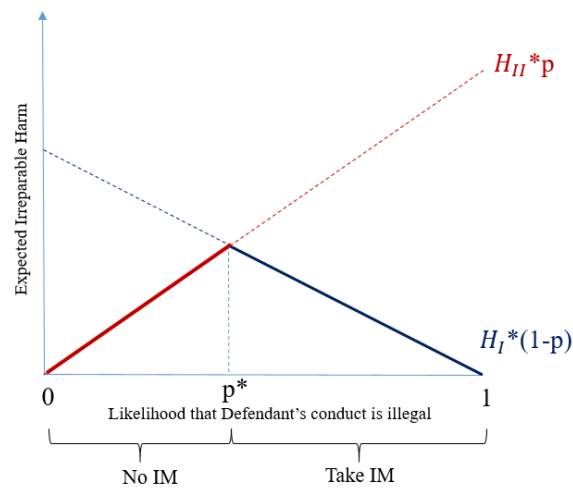
$$H_{II} * p > H_I * (1 - p)$$

where

- $H_{II}$  = irreparable harm to plaintiff and consumers from under-enforcement
- $p$  = probability conduct will be found anticompetitive by investigation
- $H_I$  = irreparable harm to defendant and consumers from over-enforcement

It can also be expressed graphically. In the figure below, the blue line represents the expected harms from imposing an IM, while the red line represents the expected harms from not imposing an IM, depending on the probability that the conduct will be found to be anticompetitive. Note that the point where the two lines cross, corresponding to

probability  $p^*$ , is the probability at which the authority or court is neutral about imposing an IM.



This model suggests that an IM should be taken when the red line is above the blue line – that is, when the probability that the defendant’s conduct is illegal is above  $p^*$ .

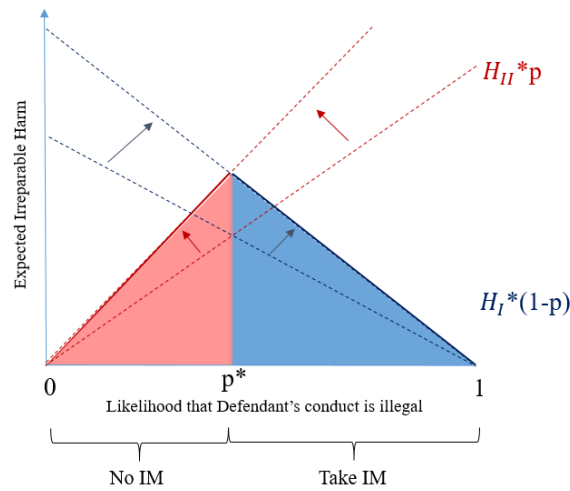
It follows from the Optimal Decision Rule that a decision should be tipped in favor of an IM if:

- The probability that the defendant’s conduct will be found to be illegal is high, and
- The harm from failing to impose the IM is relatively higher than the irreparable harm from incorrectly imposing it.

### 3. The Importance of Asymmetry

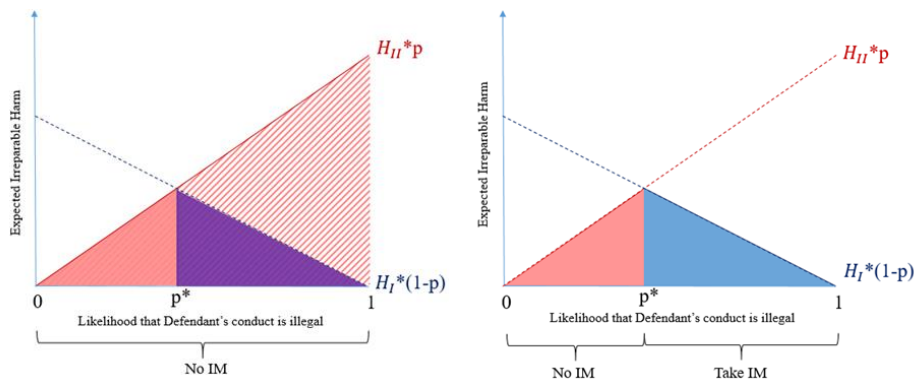
A critical, if unintuitive, insight that flows from the Optimal Decision Rule is that changes that affect both sides of the IM similarly do not tip the balance of whether to impose an IM. In other words, the *absolute size* of expected harms is irrelevant; what matters is their relative size or *asymmetry*. For example, an increase in the time needed to complete an investigation would not affect the IM decision so long as it increased both types of expected harm proportionately.

This idea can be visually represented in the figure below, which shows that a symmetrical increase in harms would not affect the decision given by the Optimal Decision Rule.



#### 4. Benefits and Necessary Ingredients of an IM Regime

The main benefit of an IM regime is that, used properly, IMs reduce expected irreparable harm. To see why, consider the two figures below. The left-hand figure shows a world without IMs, while the right-hand figure shows a regime in which IMs are available.



In the left-hand figure, the red triangle represents the expected Type II irreparable harm suffered by the plaintiff and consumers if the probability that the conduct is found illegal is below the threshold  $p^*$ . This is the same in the right-hand figure.

As the probability that the defendant's conduct is illegal exceeds  $p^*$ , the total possible irreparable harm in a world without IMs is the sum of the purple triangle (the harm that the defendant and consumers would face if the IM were a mistake) and the hashed triangle (the harm that would have been saved had the IM been taken). This is greater than the blue triangle if an IM had been taken, which represents the expected Type I irreparable harm suffered by the defendant and consumers if the probability that the conduct is found illegal is above the threshold  $p^*$ .

In other words, the expected social benefit of an IM regime will be somewhere in the hashed regime; the purple triangle represents a change in who is harmed.

As a consequence, the expected benefit of a correct decision, be it to use or to not use an IM, increases when there is more potential irreparable harm to be minimized. The size of the harm increases if the time between the IM and the conclusion of the full investigation is greater, or if the harms themselves are larger, as with particular industries. Moreover, in

a world where anticompetitive conduct is more frequent, there are more occasions to minimize harm, making the IM a more valuable tool.

However, it is important to remember that two factors are crucial for making an IM regime work:

- Reliable estimates of the relevant parameters must be available, and
- Regulators must have a consistent and rigorous methodology for making these calculations to assess the utility of IMs.

## 5. IMs in Practice

While the relatively simple model presented so far has the virtue of being easy to follow, it can be helpful to complexify the models in order to get some insights into how IMs operate in practice.

For instance, consider a case in which an authority faces a reputational cost for an incorrect decision – particularly for levying an IM in a case where an investigation shows that no anticompetitive conduct occurred. Because the costs for over-enforcement and under-enforcement are asymmetric – i.e., over-enforcement is more costly – the balance is shifted toward fewer IMs. In this case, the Optimal Decision Rule can be modified as follows:

$$H_{II} * p > (H_I + C_R) * (1-p)$$

where  $C_R$  = the reputational cost of imposing the IM. In this situation, the authority may want to set a minimal threshold in terms of the likelihood of anticompetitive behavior. There may also be cases in which the optimal rule would recommend using an IM if  $p$  is very low but  $H_{II}$  is very high; this could be quite controversial.

Additionally, the model presented here relies on a linear probabilistic framework. However, it is possible to use different frameworks to suit different regimes. For example, antitrust authorities or courts may want to avoid risk or particularly bad outcomes, in which case the model can be modified to account for non-linear probabilistic frameworks. For instance, under risk aversion, the competition authority or court would tend to favor the side with the highest expected irreparable harm.

Finally, it is helpful to consider a highly practical question: Why does it often take a long time to make an IM decision? Is the reason exogenous – e.g., because the courts are backed up – or endogenous – e.g., because the at-issue conduct is so complex that it takes more time to evaluate? In the former case “rushing” a decision may be productive; in the latter case, it is likely counterproductive.

## 6. IMs and the Digital Economy

To round out this economic discussion of IMs, we take a brief look at their use in the digital economy. This sector often has characteristics that can affect the relevant parameters for IMs.

For example, the presence of network effects and rapid technological change gives rise to concerns about the amount of both Type I and Type II harms that may occur with an IM. In other words, the structure of the market can be altered for the foreseeable future, and more profoundly so, by an incorrect IM decision in either direction in the digital market than in regular markets. Faster dynamics may increase the chance that either a plaintiff or

a defendant could go bankrupt, or lose significant market share, before an investigation concludes.

Conversely, incorrect IMs against large firms may lead to harm to a great number of consumers as the investigation proceeds. Even though the harm to each individual may be small, aggregate harm across all individuals through multiple years may be large.

It follows that the need for accurate IMs is even more evident in the digital economy than in other markets, because both under- and over-enforcement may have more enduring negative consequences. In this context, it is important to remember that the role of IMs is to increase competition, not to pick a market winner. If the conduct is likely to be found to be anticompetitive, IMs may be very beneficial. On the other hand, if the conduct is unlikely to be found to be anticompetitive, an incorrect IM may have long-lasting negative effects.

To sum up:

- In the digital economy, an IM regime has even greater potential value than in other markets
- However, the risk of greater harms on both sides from incorrect decisions means that IMs must be imposed carefully, rigorously, and on a case-by-case basis