

TOWARDS CONVERGENCE: THE VOLUME OF
“AFFECTED” COMMERCE UNDER THE U.S.
SENTENCING GUIDELINES AND “IMPACT” ANALYSIS
UNDER THE CLAYTON ACT

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INTRODUCTION

It may strike some as a paradox that, despite the fact that criminal anti-trust cases are subject to a higher burden of proof than their civil counterparts, when it comes to the question of showing *impact* from an alleged violation the level of rigor evinced in the civil setting far exceeds that in the criminal setting. Section 2R1.1 of the U.S. Sentencing Guidelines (“Sentencing Guidelines”) allows for calculation of criminal fines in antitrust cases based on the “volume of affected commerce.”¹ There can be little dispute that Section 2R1.1 and Clayton Act Section 4,² which governs civil cases, speak to the same issue: what effect—if any—did the antitrust violation have on commerce? The word “affected” in the Sentencing Guidelines denotes a causal flow from the violation to the commerce.³ Likewise, Clayton Act Section 4 speaks in terms of injury to business or property “by reason of” (i.e., because of) the violation.⁴ Each inquiry calls for an analysis of the causal chain reaction flowing from the violation.

Typically in the civil setting, parties develop evidence and economic models through expert testimony purporting to show what the marketplace conditions would have been “but-for” the antitrust violation.⁵ This inquiry often involves sophisticated econometric modeling with regression techniques to compare periods of economic activity when the alleged violation was not in effect to periods when it was in effect (the latter is often termed the “conduct” or “conspiracy” period).⁶ The goal of these econometric ana-

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¹ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1(d)(1) (2010).

² 15 U.S.C. § 15a (2006).

³ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1(b)(2).

⁴ 15 U.S.C. § 15a.

⁵ See Halbert White et al., *The Measurement of Economic Damages in Antitrust Civil Litigation*, 6 ECON. COMMITTEE NEWSL. (ABA SECTION OF ANTITRUST LAW, CHICAGO, ILL.), Spring 2006, at 17, 17-18 (internal quotation marks omitted) (describing economic but-for pricing analysis).

⁶ See *id.* at 21.

lyses is to model the market, incorporating all factors that could influence prices, including costs, consumer demand, and demand and supply shocks. A model that incorporates all factors that could affect prices can be used to estimate the effect, if any, of the alleged conspiracy.⁷ This inquiry also can rely on documentary evidence that illustrates the economic conditions during the conduct period, including whether price competition was intense, whether there was oversupply, whether customers had bargaining power, and whether conspirators cheated.⁸ The extent to which price competition and volatile market shares in the periods “before or after” the conduct period extend to the conspiracy period often is a point of contention.⁹

Economist and Nobel Laureate George Stigler wrote that cheating is competition in the context of a conspiracy.¹⁰ In his landmark 1964 piece, *A Theory of Oligopoly*, Stigler pointed to a key distinction between the existence of a conspiracy and the existence of an *effective* conspiracy.¹¹ He wrote:

The present paper accepts the hypothesis that oligopolists wish to collude to maximize joint profits. It seeks to reconcile this wish with facts, such as that collusion is impossible for many firms and collusion is much more effective in some circumstances than in others. The reconciliation is found in the problem of policing a collusive agreement, which proves to be a problem in the theory of information.¹²

Stigler noted that conspiracies are inherently fragile, and that this has drastic implications for their impact, including whether they have any impact.¹³ He noted that “[i]t is a well-established proposition that if any member of the agreement can secretly violate it, he will gain larger profits than by conforming to it.”¹⁴ Recent economic literature also does not blindly accept that all conspiracies are effective.¹⁵

The literature’s well-recognized distinction between conspiracies and *effective* conspiracies is not an insight the Sentencing Guidelines embrace, much less encourage a rigorous inquiry into. In contrast to what happens in civil cases, the Sentencing Guidelines, which rely on a presumption to

⁷ See *infra* Part III.C.

⁸ See Roger D. Blair & William H. Page, “Speculative” Antitrust Damages, 70 WASH. L. REV. 423, 436 (1995) (explaining that the plaintiff must establish an evidentiary foundation to “support a scenario of events in the but-for world”); see also *infra* Part III.C.

⁹ See *infra* notes 164-72 and accompanying text.

¹⁰ See George J. Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44, 48 (1964) (“Our definition of perfect collusion, indeed, must be that no buyer changes sellers voluntarily. There is no competitive price-cutting if there are not shifts of buyers among sellers.”).

¹¹ *Id.* at 44.

¹² *Id.*

¹³ See *id.* at 46 (describing the fragility of conspiracies and explaining the limitations of a conspiracy with weak enforcement).

¹⁴ *Id.*

¹⁵ See, e.g., MICHAEL D. WHINSTON, LECTURES ON ANTITRUST ECONOMICS 38 (2006).

gauge “the volume of affected commerce,”¹⁶ have dulled the impact inquiry in the criminal setting.¹⁷ This results in the paradox that the very same conspiracy typically is subject to two very different analyses concerning its alleged impact. Parties may be fighting hard on the issue of impact in the civil courtroom while the Sentencing Guidelines arguably allow the government to turn a blind eye to impact analysis in the criminal setting.¹⁸ The basis for this distinction continues to diminish in light of recent developments. We believe that defendants in the criminal setting should put the government to the burden of showing to what extent a conspiracy produced an economic impact, and that defendants also must be prepared to press the issue.

In Part I, this Article discusses the “volume of affected commerce” provision of the Sentencing Guidelines and courts of appeals’ differing interpretations of the phrase. Part II explains the impact of the 2005 Supreme Court case *United States v. Booker*¹⁹ and its progeny on the use of the Sentencing Guidelines’ proxy for harm in determining criminal antitrust fines. This is followed by a discussion, based in economic theory, of why the Sentencing Guidelines’ presumption that the harm resulting from a conspiracy is equal to “20 percent of the volume of affected commerce”²⁰ is flawed. Part III contrasts this with the analysis that plaintiffs must perform in order to recover damages in a civil case brought under Section 4 of the Clayton Act. Finally, in Part IV, the Article discusses the difficulties with and possibilities of using a civil-style impact analysis in a criminal case. The Article concludes that this type of analysis is appropriate in criminal cases and argues that the government should be put to its proof more frequently.

I. THE SENTENCING GUIDELINES’ TRADITIONAL VIEW OF VOLUME OF AFFECTED COMMERCE

Section 1 of the Sherman Act prescribes a maximum corporate fine of \$100 million for each violation of the Act.²¹ The alternative fine provision

¹⁶ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1(d)(1) (2010).

¹⁷ See *infra* Part II.

¹⁸ Compare *J. Truett Payne Co. v. Chrysler Motors Corp.*, 451 U.S. 557, 565-66 (1981) (stating that a plaintiff may show injury in a civil case through “proof of defendants’ wrongful acts and their tendency to injure plaintiffs’ business, and from the evidence of the decline in prices, profits and values, not shown to be attributable to other causes” (quoting *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 123-24 (1969)) (internal quotation marks omitted)), with *United States v. SKW Metals & Alloys, Inc.*, 195 F.3d 83, 91 (2d Cir. 1999) (stating that “[a] finding as to the volume of affected commerce does not require a sale-by-sale accounting, or an econometric analysis, or expert testimony” in the criminal setting).

¹⁹ 543 U.S. 220 (2005).

²⁰ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1(d)(1).

²¹ 15 U.S.C. § 1 (2006).

of the Criminal Fine Improvements Act provides for a potentially greater fine: twice the gross pecuniary gain or loss caused by the conspiracy.²² The government often resorts to the alternative fine provision in antitrust cases, having obtained fines of more than \$100 million from nine defendants since the maximum corporate fine was increased to \$100 million.²³ Both the Sherman Act and the alternative fine provision set the *upper* limit on corporate fines—the actual fine calculation is based on the Sentencing Guidelines. Under the Sentencing Guidelines, the court first determines the “base fine,”²⁴ which for antitrust offenses is typically 20 percent of “the volume of commerce done by [an individual participant] or his principal in goods or services that were affected by the violation.”²⁵ Second, the court determines the defendant’s culpability score, which is based on a number of factors, including whether any high-level personnel were involved in or tolerated the conspiracy, the size of the company (or unit of the company that was involved), and whether the company had an ethics or compliance program.²⁶ Third, the court uses the culpability score to select minimum and maximum multipliers from a table, and it multiplies the base fine by both the minimum multiplier (to produce the minimum fine) and the maximum multiplier (to produce the maximum fine).²⁷ Together, the minimum and maximum fines are the “fine range.”²⁸ Finally, the court selects a fine within that range.²⁹

As some practitioners have observed:

Given that the starting point of the fine calculation is determined entirely by the ‘volume of affected commerce’ . . . concept, one might expect this to be a carefully defined term in the

²² 18 U.S.C. § 3571(d) (2006).

²³ U.S. Dep’t of Justice, Antitrust Div., *Sherman Act Violations Yielding a Corporate Fine of \$10 Million or More*, U.S. DEP’T OF JUSTICE, <http://www.justice.gov/atr/public/criminal/sherman10.pdf> (last updated Apr. 28, 2011); see also JED S. RAKOFF & JONATHAN S. SACK, CORPORATE SENTENCING GUIDELINES: COMPLIANCE AND MITIGATION § 7.03[1], at 7-9 (2006) (“The Antitrust Division is increasingly using this [alternative fine] provision, and has obtained a number of plea agreements providing for penalties in excess of the Sherman Act maximum.”). Prior to June 22, 2004, the maximum statutory penalty was only \$10 million and the Antitrust Division “sought fines above the statutory maximum fifty-one times since 1997.” ANTITRUST MODERNIZATION COMM’N, REPORT AND RECOMMENDATIONS 298-99 (2007) [hereinafter AMC REPORT], available at http://govinfo.library.unt.edu/amc/report_recommendation/amc_final_report.pdf.

²⁴ U.S. SENTENCING GUIDELINES MANUAL § 8C2.4.

²⁵ *Id.* § 2R1.1(b)(2). The base fine may also be the pecuniary gain to the defendant or an amount specified in a fine table, whichever of these three options is greatest. *Id.* § 8C2.4(a).

²⁶ *Id.* § 8C2.5.

²⁷ *Id.* §§ 8C2.6-2.7.

²⁸ *Id.* § 8C2.7.

²⁹ U.S. SENTENCING GUIDELINES MANUAL § 8C2.8.

[Sentencing Guidelines], in policy statements from the [Department of Justice (“DOJ”) Anti-trust] Division, or in case precedent.³⁰

This is not the case.³¹ The Sentencing Guidelines and commentary offer no further explanation, and “the Division has given scant guidance.”³² There is a paucity of case law interpreting the volume of commerce provision of the Sentencing Guidelines—the volume of affected commerce is rarely litigated.³³ The first notable opinion to examine the meaning of “volume of affected commerce” was *United States v. Hayter Oil Co.*,³⁴ while the most recent treatment was set forth in *United States v. Giordano*.³⁵ Only two other federal courts of appeals have weighed in on the issue—the Second Circuit in *United States v. SKW Metals & Alloys, Inc.*³⁶ and the Seventh Circuit in *United States v. Andreas*.³⁷

In seeking to understand the meaning of “volume of affected commerce,” the *Hayter Oil*, *Andreas*, and *SKW Metals* courts took consistent approaches. Each court concluded that the language is unambiguous, and therefore, the plain language controls.³⁸ Looking at the “everyday usage” of the term “affected,” the Sixth Circuit in *Hayter Oil* stated that “[a]ffect’ is defined ‘to produce an effect . . . upon’ or ‘to have a detrimental influence on’ and is synonymous with the term ‘influence.’”³⁹ The court continued, “The verb form of ‘influence’ is defined ‘to affect or alter the conduct, thought, or character of by indirect or intangible means.’ . . . Thus, ‘affected’ is very broad and would include all commerce that was influenced, directly or indirectly, by the price-fixing conspiracy.”⁴⁰ The Second Circuit in *SKW Metals* made a similar observation that “the verb ‘to affect’ expresses a broad and open-ended range of influences.”⁴¹ The Seventh Circuit in *Andreas* also noted that “‘affected’ is a very broad term.”⁴²

³⁰ James M. Mutchnik et al., *The Volume of Commerce Enigma*, ANTITRUST SOURCE, June 2008, at 1, 2.

³¹ *Id.*; see also *United States v. SKW Metals & Alloys, Inc.*, 195 F.3d 83, 90 (2d Cir. 1999) (“The phrase is not defined in the Guidelines, is not used elsewhere in the Guidelines, is *sui generis* to the Guidelines in the antitrust context, and is not a term of art.”).

³² Mutchnik et al., *supra* note 30, at 2.

³³ *Id.*

³⁴ 51 F.3d 1265 (6th Cir. 1995).

³⁵ 261 F.3d 1134 (11th Cir. 2001).

³⁶ 195 F.3d 83 (2d Cir. 1999).

³⁷ 216 F.3d 645 (7th Cir. 2000).

³⁸ *Id.* at 676; *SKW Metals*, 195 F.3d at 90; *Hayter Oil*, 51 F.3d at 1272. The *Giordano* court was silent on the issue.

³⁹ *Hayter Oil*, 51 F.3d at 1272 (second alteration in original) (quoting WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE 35 (unabr. ed. 1981)).

⁴⁰ *Id.* at 1272-73 (citation omitted).

⁴¹ *SKW Metals*, 195 F.3d at 90.

⁴² *Andreas*, 216 F.3d at 676.

The consistency in approaches arguably ends there. Despite these shared observations on the meaning of “affected,” each court applied its understanding in a different way.

Favoring the government’s perspective, the *Hayter Oil* court concluded that the volume of commerce “includes all sales of the specific types of goods or services which were made by the defendant or his principal during the period of the conspiracy, without regard to whether individual sales were made at the target price.”⁴³ Simply put, all of a defendant’s sales are included without further inquiry under the Sixth Circuit’s interpretation.

In *SKW Metals*, the court held that a price-fixing conspiracy can—but does not necessarily—affect prices, even if the sale prices are below the target price.⁴⁴ The district court had found that the conspiracy was only “successful” during two subsets of the date range alleged in the indictment, but failed to define the term “successful.”⁴⁵ The Second Circuit recognized that the conspiracy may not have been successful at times, either because it “failed to influence the commodity price” during these periods, or because the sales were not made at or above the target price.⁴⁶ Agreeing with *Hayter Oil* that the latter reasoning would be erroneous, the Second Circuit remanded the case because of the ambiguity in the district court’s findings.⁴⁷

Like the Second Circuit, the *Andreas* court disagreed with *Hayter Oil* “so far as it implies that all sales during the time period of the price-fixing conspiracy should be counted for purposes of § 2R1.1 simply because they occurred during the period of the conspiracy.”⁴⁸ The Seventh Circuit went further than the Second Circuit by creating a rebuttable presumption that all sales are affected by the conspiracy.⁴⁹ The court also stated that, under the Sentencing Guidelines, the government must prove the conduct that violated the antitrust laws by a preponderance of the evidence.⁵⁰ In *Giordano*, the Eleventh Circuit adopted the rebuttable presumption set forth in *Andreas*.⁵¹

The *Hayter Oil* approach, which allows for all sales during the conspiracy period to be included in the volume of commerce without further inquiry, is inconsistent both with the definition of “affected” and the intent of the Sentencing Guidelines. “[T]he purpose of the § 2R1.1 enhancement is to gauge the harm inflicted by the illegal agreement.”⁵² The Commentary

⁴³ *Hayter Oil*, 51 F.3d at 1273.

⁴⁴ *SKW Metals*, 195 F.3d at 90.

⁴⁵ See *id.* at 89 (internal quotation marks omitted) (debating what the district court meant by successful).

⁴⁶ *Id.*

⁴⁷ *Id.* at 89-90, 93.

⁴⁸ *United States v. Andreas*, 216 F.3d 645, 677 (7th Cir. 2000).

⁴⁹ *Id.* at 678.

⁵⁰ *Id.*

⁵¹ *United States v. Giordano*, 261 F.3d 1134, 1146 (11th Cir. 2001).

⁵² *Andreas*, 216 F.3d at 677-78 (emphasis added).

to the Sentencing Guidelines echoes this point by explaining that “[t]ying the offense level to the scale or scope of the offense is important in order to ensure that the sanction is in fact punitive.”⁵³

The Sentencing Guidelines’ objective of gauging the impact or injury caused by a price-fixing conspiracy dovetails with the cheating that is prevalent in each of these four cases. Even in *Hayter Oil*, the court described that “[a]lthough gasoline prices initially went up as agreed following the meeting, they gradually decreased. As a result, the dealers had several subsequent meetings to shore up prices that had eroded as a result of dealers cheating or reducing their prices in response to Pilot[,]” a large competitor that had not participated in the conspiracy.⁵⁴ Throughout the conspiracy, the court observed that “the typical price increase in the Greeneville market was between two and seven cents per gallon and would last anywhere from a day or two to several weeks before starting to drop.”⁵⁵ At no point, according to the court’s opinion, did Pilot join the conspiracy.⁵⁶

In *SKW Metals*, the court described cheating by the conspirators and found that during a meeting, the conspirators discussed “downward price pressure from non-cooperating co-conspirators and how to prop up the target price.”⁵⁷ One of the *Giordano* conspirators explained that she cheated on the agreement by deviating from the agreed-upon delivery terms for her price quotes and, when confronted, lied about her practice to a co-conspirator.⁵⁸ In *Andreas*, the Seventh Circuit explained that the conspirators understood that the cartel would be fragile until they could reach an agreement to allocate the sales volume of lysine among each other.⁵⁹ Otherwise, they would have an incentive to cheat on the agreed-upon price in order to gain sales, causing the price to fall and the agreement to falter.⁶⁰ Indeed, despite reaching a pricing agreement in 1992, the court found the price of lysine dropped in 1993.⁶¹

As discussed in further detail below, it is not surprising to see the prevalence of cheating described in these opinions and the (likely) effect of this cheating on the prices paid by those who bought from the conspirators.⁶² Yet, the *Hayter Oil* analysis fell short of both economic reality and the Sentencing Guidelines’ intent to gauge harm because the court included

⁵³ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1 cmt. background (2010).

⁵⁴ *United States v. Hayter Oil Co.*, 51 F.3d 1265, 1267 (6th Cir. 1995).

⁵⁵ *Id.*

⁵⁶ *See id.* (explaining that the conspiracy members did not approach Pilot with their price-fixing scheme).

⁵⁷ *United States v. SKW Metals & Alloys, Inc.*, 195 F.3d 83, 86 (2d Cir. 1999).

⁵⁸ *United States v. Giordano*, 261 F.3d 1134, 1137 (11th Cir. 2001).

⁵⁹ *United States v. Andreas*, 216 F.3d 645, 652 (7th Cir. 2000).

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *See infra* Part II.B.

all sales made by a conspirator in determining the volume of commerce,⁶³ even though prices fell for a portion of the conspiracy period and there was a significant supplier that was not part of the conspiracy.⁶⁴ In contrast, the Second Circuit explained:

If the conspiracy was a non-starter, or if during the course of the conspiracy there were intervals when the illegal agreement was ineffectual and had no effect or influence on prices, then sales in those intervals are not “affected by” the illegal agreement, and should be excluded from the volume of commerce calculation.⁶⁵

While courts of appeals differ in their interpretations of what constitutes “affected commerce,” the frequency of cheating indicates that it is highly doubtful that a conspiracy can affect all sales during a conspiracy period. The courts in *SKW Metals*, *Andreas*, and *Giordano* correctly considered this fact in their analyses. Their conclusion that the calculation of the affected volume of commerce should exclude periods when a conspiracy does not affect prices (even if this burden rests with the defendant through the use of a rebuttable presumption that all sales are included) is likely to lead to a more accurate gauge of the harm resulting from a conspiracy. This conclusion is more consistent with the purpose of Section 2R1.1 than the *Hayter Oil* conclusion.

II. REEXAMINING THE TWENTY PERCENT PROXY

The “20 percent of the volume of affected commerce” calculation is intended to be a proxy for the harm caused by the antitrust violation.⁶⁶ The Sentencing Commission adopted the 20 percent harm proxy in 1991 to “avoid the time and expense that would be required for the court to determine the actual gain or loss.”⁶⁷ Appearing before the Antitrust Modernization Commission (“AMC”) in 2005, the DOJ voiced support for the shorthand calculation, arguing that more precise calculations are unnecessary “because their primary purpose is to punish and deter, and they already provide rough justice.”⁶⁸

While the 20 percent presumption seemingly streamlines the process, the result is that fines are not individually tailored, but rather ostensibly based on “typical harm in antitrust cases.”⁶⁹ Accordingly, the 20 percent

⁶³ See *Andreas*, 216 F.3d at 677.

⁶⁴ See *supra* notes 54-56.

⁶⁵ *United States v. SKW Metals & Alloys, Inc.*, 195 F.3d 83, 91 (2d Cir. 1999).

⁶⁶ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1 cmt. n.3 (2010).

⁶⁷ *Id.* at app. C, amend. 422.

⁶⁸ AMC REPORT, *supra* note 23, at 301 & n.56.

⁶⁹ See *id.* at 301 (explaining that the harm proxy should “accurately reflect[] the best estimate of typical harm in antitrust cases”).

presumption “does not carefully distinguish between defendants who have caused differing degrees of actual harm.”⁷⁰ This approach “runs counter” to the Sentencing Guidelines’ approach in other contexts, which calls for “actual calculation of harm.”⁷¹ The AMC also noted that there is some tension between the idea of a proxy and the Supreme Court’s ruling in *United States v. Booker*.⁷²

A. *Impact of Booker*

The import of the decisions discussed in Part I interpreting the meaning of “volume of affected commerce” changed when the Supreme Court issued its decision in *United States v. Booker*. In *Booker*, the Court altered the nature of the Sentencing Guidelines, which outline the factors courts consider in selecting a sentence within the statutory range. Prior to *Booker*, judges found these factors by a preponderance of the evidence, and use of the Sentencing Guidelines was mandatory.⁷³ In *Booker*, the Court affirmed that the Sixth Amendment right to a jury trial requires that all facts that increase a defendant’s sentence be admitted by the defendant or proven beyond a reasonable doubt.⁷⁴ To cure the constitutional problems of the pre-*Booker* regime, the Court held that the Sentencing Guidelines should be advisory rather than mandatory.⁷⁵ Following *Booker*, in the context of a price-fixing case, a district court judge is now responsible for selecting the fine amount and may select a fine within the range recommended by the Sentencing Guidelines or, in the judge’s discretion, a fine above or below the range.⁷⁶

The Supreme Court’s decision in *Booker* set the stage for subsequent developments focusing on the individualized nature of each case. The Court held in *Gall v. United States*⁷⁷ that judges are required to “make an individualized assessment based on the facts presented.”⁷⁸ While sentences within the Sentencing Guidelines’ range may be presumed reasonable, sentences outside the range may not be presumed unreasonable.⁷⁹ Sentences outside

⁷⁰ *Id.* at 302.

⁷¹ *Id.*

⁷² *Id.* at 302 & n.61.

⁷³ *See, e.g.*, *United States v. Hammoud*, 381 F.3d 316, 361-62 (4th Cir. 2004) (en banc) (Motz, J., dissenting) (describing the district judge as “[o]bedient to the Guidelines”), *vacated*, 543 U.S. 1097 (2005).

⁷⁴ *United States v. Booker*, 543 U.S. 220, 244 (2005).

⁷⁵ *Id.* at 245-46.

⁷⁶ *See id.* (explaining that courts are required to consider the Guidelines but are permitted “to tailor the sentence in light of other statutory concerns”).

⁷⁷ 552 U.S. 38 (2007).

⁷⁸ *Id.* at 50.

⁷⁹ *Id.* at 51.

the Sentencing Guidelines' range may be even more appropriate when the Sentencing Guideline itself is not based on strong empirical evidence. In *Kimbrough v. United States*,⁸⁰ the Court considered the provision in the Sentencing Guidelines imposing sentences one hundred times greater for offenses involving crack cocaine than sentences for offenses involving powder cocaine.⁸¹ Because the U.S. Sentencing Commission did not set the ratio after taking into account empirical evidence and national experience, the Court held that judges do not abuse their discretion when they determine that the sentence established by the Sentencing Guidelines is too high in a particular instance.⁸² Similarly, in antitrust cases, applying the 20 percent presumption for the duration of the conspiracy is arguably too high. Under *Kimbrough*, it would not be an abuse of discretion for a judge to conclude that applying the 20 percent proxy yields a fine that is too high in a particular case.

Another development affecting the use and interpretation of the Sentencing Guidelines is Attorney General Eric Holder's memorandum to federal prosecutors regarding the DOJ's charging and sentencing procedures.⁸³ Often referred to as the "Holder Memo," the Attorney General's directive instructs that "equal justice depends on individualized justice" and "decisions regarding charging, plea agreements, and advocacy at sentencing must be made on the merits of each case, taking into account an individualized assessment of the defendant's conduct and criminal history."⁸⁴ Issued in May 2010, the Holder Memo supersedes former Attorney General John Ashcroft's memorandum (the "Ashcroft Memo") regarding the charging of criminal defendants.⁸⁵ The Ashcroft Memo's purpose was to ensure that federal prosecutors adhered to the Sentencing Guidelines, and it instructed that "federal prosecutors must charge and pursue the most serious, readily provable offense or offenses that are supported by the facts of the case," unless the case fell within an enumerated exception.⁸⁶ In simple terms, the Holder Memo's emphasis on "an individualized assessment of the facts and

⁸⁰ 552 U.S. 85 (2007).

⁸¹ *Id.* at 110-11.

⁸² *Id.* at 109-10.

⁸³ Memorandum from Att'y Gen. Eric H. Holder, Jr. to All Federal Prosecutors (May 19, 2010) [hereinafter Holder Memo], available at <http://lawprofessors.typepad.com/files/holdermemo.pdf>.

⁸⁴ *Id.* at 1.

⁸⁵ Memorandum from Att'y Gen. John Ashcroft to All Federal Prosecutors (Sept. 22, 2003) [hereinafter Ashcroft Memo], available at http://www.justice.gov/opa/pr/2003/September/03_ag_516.htm.

⁸⁶ *Id.*; see also Scott D. Hammond, Deputy Assistant Att'y Gen. for Criminal Enforcement, U.S. Dep't of Justice, Antitrust Div., The U.S. Model of Negotiated Plea Agreements: A Good Deal with Benefits for All 5 & n.11 (Oct. 17, 2006), available at <http://www.justice.gov/atr/public/speeches/219332.pdf> (citing the Ashcroft Memo for the proposition that the "Department of Justice policies require that federal prosecutors charge and pursue the most serious, readily provable offense or offenses").

circumstances of each particular case” buttresses the move away from mandatory sentencing articulated in *Booker* and its progeny.⁸⁷

The combination of the Sentencing Guidelines becoming advisory rather than mandatory and the call for an individualized assessment is significant given that both the Sentencing Guidelines and the cases interpreting the “volume of affected commerce” take a relatively negative view of a civil-style impact analysis. The Sentencing Guidelines state that “[t]he offense levels are not based directly on the damage caused or profit made by the defendant because damages are difficult and time consuming to establish. The volume of commerce is an acceptable and more readily measurable substitute.”⁸⁸

Interpreting this language, the *Hayter Oil* court summarily concluded that “it clearly appears that the Sentencing Commission intended that the government have the benefit of a per se rule both at trial and at sentencing to avoid the protracted inquiry into the day-to-day success of the conspiracy.”⁸⁹ Moreover, the court later continued, “[t]his language indicates that the Sentencing Commission . . . opted for greater administrative convenience in sentencing instead of economic efficiency in the marketplace.”⁹⁰ The *SKW Metals* court went so far as to state that “[a] finding as to the volume of affected commerce does not require a sale-by-sale accounting, or an econometric analysis, or expert testimony.”⁹¹ Yet it explained that, “this lightening of the government’s burden does not excuse altogether the government’s need to prove that the prices charged were ‘affected by’ the conspiracy.” Further, if the conspiracy was a “non-starter” or the agreement was ineffectual these sales should be excluded from the volume of commerce.⁹² Therefore, under *SKW Metals*, although the government does not need to perform an econometric analysis to determine the amount of damages the conspiracy caused, it does need to prove that the conspiracy caused some kind of impact.⁹³

Particularly given developments in econometric techniques, it may now be possible for the government to determine the amount of damages without a protracted inquiry. The AMC in 2007 recognized that “development of economic learning and estimation techniques over the past fifteen years may have made proving gain or loss in an antitrust case less difficult than it was when the Sentencing Commission created the proxy.”⁹⁴

⁸⁷ Holder Memo, *supra* note 83, at 2-3.

⁸⁸ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1 cmt. background (2010).

⁸⁹ *United States v. Hayter Oil Co.*, 51 F.3d 1265, 1274 (6th Cir. 1995).

⁹⁰ *Id.* at 1276.

⁹¹ *United States v. SKW Metals & Alloys, Inc.*, 195 F.3d 83, 91 (2d Cir. 1999).

⁹² *Id.*

⁹³ *Id.*

⁹⁴ See AMC REPORT, *supra* note 23, at 301.

As discussed above, *Booker* also heightened the burden of proof for facts that require an increase in a defendant's sentence. These facts must now be found beyond a reasonable doubt rather than by a preponderance of the evidence.⁹⁵ In *Andreas*, the Seventh Circuit expressly said that conduct supporting a rebuttable presumption that all sales are affected by the conspiracy must be proven by a preponderance of the evidence.⁹⁶ With the preponderance of the evidence standard now inapplicable at the sentencing phase, the standard for creating a rebuttable presumption of antitrust liability should be lowered.

The combination of *Booker* and its progeny together with the shift in the DOJ's charging policies help set the stage for a civil-style impact analysis in the criminal setting. In particular, the focus on individualized assessments of fact favors questioning the 20 percent proxy, because the facts of each investigation are likely to vary, as seen in the *Hayter Oil* line of cases.

B. *The Economics of Cheating*

Given the debate concerning the role of the Sentencing Guidelines and the potential drawbacks of the 20 percent proxy, it is important to acknowledge the assumptions underlying the calculation. The proxy is built on at least two assumptions. First, it inherently assumes that the harm caused by the violation is proportional to the volume of affected commerce. The more rigorous the analysis employed to determine the volume of commerce affected by the violation, the better tested this assumption is. Second, it assumes that 20 percent is an accurate proxy. The proxy reflects a presumed 10 percent overcharge, which is doubled to 20 percent because the injury to society exceeds the amount of the overcharge, and the overcharge deters other violations.⁹⁷

The assumed overcharge warrants particular scrutiny because of the difficulties a cartel must overcome in order to be effective.⁹⁸ Cartels typically are fragile. "Absent [a cartel that fully controls the operations and sales of its members], creating and maintaining a successful cartel is hampered by divergent interests, strong temptations to cheat on the cartel price, non-

⁹⁵ *United States v. Booker*, 543 U.S. 220, 244 (2005).

⁹⁶ *United States v. Andreas*, 216 F.3d 645, 678 (7th Cir. 2000) ("The burden of proof under the Guidelines requires only that the government establish relevant conduct by a preponderance of the evidence . . . a standard that supports a rebuttable presumption that all sales during the conspiracy were affected by the illegal agreement." (citation omitted)).

⁹⁷ U.S. SENTENCING GUIDELINES MANUAL § 2R1.1 cmt. n.3 (2010).

⁹⁸ The incentive to cheat is inherent in all cartels. 2B PHILLIP E. AREEDA ET AL., ANTITRUST LAW ¶ 405b2, at 29 (3d ed. 2007). Specific cartels may face even larger impediments. For example, the presence of a large competitor that has not joined the conspiracy, like Pilot in *Hayter Oil*, will make it more difficult for the cartel to raise prices. See *United States v. Hayter Oil Co.*, 51 F.3d 1265, 1267 (6th Cir. 1995).

price competition, and changes in market shares.”⁹⁹ The antitrust laws mean cartels, by nature, must be covert enterprises, and this degree of centralization is all but impossible.

Evidence of cheating frequently is observed in cartel cases,¹⁰⁰ which is not unexpected given the relevant legal and economic frameworks. Criminal liability attaches as soon as the conspirators agree to fix prices,¹⁰¹ so talk can be cheap once there is an agreement. In economists’ parlance, “cheap talk” is speech that has no direct economic consequences for the speaker.¹⁰² It does not necessarily commit the speaker to any particular course of action, so it should not necessarily be believed. “When an oligopolist tells his competitor that he will raise his price tomorrow if his competitor also does so, this talk is cheap.”¹⁰³ This is because competitors usually face strong incentives to cheat on any agreement they may have reached.¹⁰⁴ These incentives are so strong that “price fixing often carries the seeds of its own destruction.”¹⁰⁵ As Professor Stigler explained, “It is a well-established proposition that if any member of the agreement can secretly violate it, he will gain larger profits than by conforming to it.”¹⁰⁶

To take a simple example, assume that the only two competitors in a market agree to raise prices by 10 percent. If one competitor cheats and raises its prices by only 5 percent, it can expand its sales and boost profits. The cheater probably even can leave prices unchanged, steal market share, and come out ahead.

Indeed, the most profitable outcome for the cheater usually occurs when it cheats while its rival cooperates. “[A] firm will always want to convince its rival to behave cooperatively (in its price or output choice) regardless of its own actual intentions.”¹⁰⁷ Because the cheater still has every incentive to communicate with its rival, communications may persist even once cheating has occurred.¹⁰⁸

This dynamic operates within many different market structures. Whether they are small players in the market or large ones, price fixers

⁹⁹ 2B AREEDA ET AL., *supra* note 98, ¶ 405b, at 29.

¹⁰⁰ *See supra* Part I.

¹⁰¹ 15 U.S.C. § 1 (2006); *see also* ANDREW I. GAVIL ET AL., *ANTITRUST LAW IN PERSPECTIVE: CASES, CONCEPTS AND PROBLEMS IN COMPETITION POLICY* 103 (2d ed. 2008).

¹⁰² WHINSTON, *supra* note 15, at 21 (internal quotation marks omitted).

¹⁰³ *Id.*

¹⁰⁴ 2B AREEDA ET AL., *supra* note 98, ¶ 405b2, at 29.

¹⁰⁵ *Id.*

¹⁰⁶ Stigler, *supra* note 10, at 46.

¹⁰⁷ WHINSTON, *supra* note 15, at 23.

¹⁰⁸ *See, e.g., United States v. Hayter Oil Co.*, 51 F.3d 1265, 1267 (6th Cir. 1995) (noting that dealers had meetings “to shore up prices that had eroded as a result of dealers cheating or reducing their prices”).

have an incentive to cheat.¹⁰⁹ Every firm—whether competing or colluding—finds it profitable to increase sales as long as marginal revenue exceeds marginal cost.¹¹⁰ When cartels fix prices above marginal cost (as they must to be profitable), every participant has the incentive to sell more.¹¹¹ If the cartel is comprised of numerous small producers, and each member's production is too small to affect prices, each will expand production, and the increased supply will cause prices to fall.¹¹² If the cartel includes firms large enough that their output will affect prices, they can still try to win additional sales by secretly cutting their own prices.¹¹³ As an alternative to cutting prices, cartel members can try to win additional sales by providing a more valuable product, either by offering additional services or more favorable terms.¹¹⁴

Because cheating is profitable, conspiracies must find a way to prevent cheating or they are almost certain to be ineffective.¹¹⁵ Professor Stigler calls it “one of the axioms of human behavior that all agreements whose violation would be profitable to the violator must be enforced.”¹¹⁶ Because the cheating incentives are so strong, “no conspiracy can neglect the problem of enforcement.”¹¹⁷

The most straightforward—and most effective—enforcement strategy is unavailable: the antitrust laws prevent competitors from reaching legally binding agreements. As a result, cartel “[e]nforcement consists basically of detecting significant deviations from the agreed-upon prices. Once detected, the deviations will tend to disappear because they are no longer secret and will be matched by fellow conspirators if they are not withdrawn.”¹¹⁸ One way to combat secret price cutting is to fix market shares.¹¹⁹ This is a risky strategy to pursue, however, because it usually is easily spotted by antitrust enforcers.¹²⁰ Alternatively, sellers can divide the market and agree that each will sell only to specific buyers.¹²¹ In the short term, this strategy eliminates the sellers' incentive to cut prices because low prices will not entice any new buyers, and the seller will not lose its buyers if it charges higher prices.

¹⁰⁹ See 2B AREEDA ET AL., *supra* note 98, ¶ 405b, at 29 (“[C]reating and maintaining a successful cartel is hampered by . . . strong temptations to cheat on the cartel price . . .”).

¹¹⁰ *Id.* ¶ 405b2, at 29-30.

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ See GAVIL ET AL., *supra* note 101, at 239 (observing that a cartel might not survive without an effective way to punish cheaters).

¹¹⁶ Stigler, *supra* note 10, at 46.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

es.¹²² In the long term, though, the arrangement is likely to be unstable because some buyers or segments of the market are likely to be more successful, and thus purchase more, while others may demand less or even exit the market.¹²³ A conspirator that has agreed to sell only to an unsuccessful buyer will push to revise the arrangement; these constant revisions contribute to the cartel's instability.¹²⁴ Moreover, like fixing market shares, allocating the market is easy for antitrust enforcers to spot,¹²⁵ not least because buyers know that they can purchase from only some sellers, and are likely to tell the enforcers as much.

An alternative is that competitors simply may choose to inspect each other's records to confirm that they are charging the agreed-upon price.¹²⁶ This strategy can provide only limited assurances, however, because sellers may offer secret negotiated discounts, or even indirect price cuts, by offering more favorable non-price terms.¹²⁷ These practices are easy to hide from co-conspirators.¹²⁸

Indeed, a key benefit of the antitrust laws may be that they force competitors to hide their communications. The effect is twofold: pricing and output decisions are less transparent, and anticompetitive agreements are not easily enforced.¹²⁹ And most importantly, no matter the enforcement mechanism, the incentive to cheat and circumvent it persists.

Implementing a cartel is likely to be a losing battle because of the strong incentive to cheat and the ineffectiveness of enforcement mechanisms. Empirical studies confirm this theoretical conclusion.¹³⁰ A thorough review of the literature on the effectiveness of price-fixing agreements concluded that the effectiveness was "somewhat mixed."¹³¹ In particular, em-

¹²² See Stigler, *supra* note 10, at 46 ("If [assigning each buyer to a single seller] can be done for all buyers, short-run price-cutting no longer has any purpose.").

¹²³ See *id.* at 46-47 ("[T]he fortunes of the various sellers will differ greatly over time . . .").

¹²⁴ See *id.* at 47.

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.* ("The price cut will often take the indirect form of modifying some non-price dimension of the transaction.").

¹²⁸ See Stigler, *supra* note 10, at 47-48 (describing the tactics that a "price-cutter" will use to avoid detection).

¹²⁹ See *id.* at 46 (noting that the ideal method of cartel enforcement "is usually an easy form of collusion to detect" because it requires leaving "indelible traces in the output records"); see also WHINSTON, *supra* note 15, at 32 ("[C]artels that talk may be relatively ineffective now because of conspirators' fear of investigation and detection.").

¹³⁰ See WHINSTON, *supra* note 15, at 26-32 (analyzing empirical studies that show prices tend not to fall significantly following enforcement actions, possibly because "talking does not matter much because conspiracies simply may be hard to police and maintain without the ability to have binding agreements"); see also Robert W. Crandall & Clifford Winston, *Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence*, 17 J. ECON. PERSP., Fall 2003, at 3, 14-15 (concluding that research has failed to find direct benefits from curbing alleged collusive practices).

¹³¹ WHINSTON, *supra* note 15, at 38.

pirical studies demonstrated little to no reduction in price following price-fixing enforcement actions,¹³² exactly what one would expect to observe if a conspiracy had not been effective in the first place. In light of the theoretical conclusions and empirical evidence, the 20 percent proxy is too high, and the government should be put to its proof.

III. ANALYSIS IN A CIVIL CASE

A. *Civil Plaintiffs' Burden of Proof*

Civil plaintiffs bear a significant burden to establish that they are entitled to recover damages for purchases of an allegedly price-fixed product or service. Clayton Act Section 4 creates a cause of action for “any person who shall be injured in his business or property *by reason of* anything forbidden in the antitrust laws.”¹³³ The statutory language makes it clear: In order to recover damages for an antitrust violation, a plaintiff must prove more than that the defendant violated the antitrust laws. Plaintiffs who have proven an antitrust violation are not entitled to “automatic damages.”¹³⁴

In a civil case, plaintiffs must also prove that the defendant's actions caused them harm.¹³⁵ Proof of an antitrust violation alone “establishes only that injury *may* result.”¹³⁶ Plaintiffs, therefore, must establish “some showing of actual injury attributable to something the antitrust laws were designed to prevent.”¹³⁷ For example, in a case involving an unlawful conspiracy, “proving the fact of damage under § 4 of the Clayton Act is satisfied by . . . proof of some damage flowing from the unlawful conspiracy.”¹³⁸ Antitrust plaintiffs must prove the fact of damages with “reasonable certainty.”¹³⁹ Plaintiffs' proof of loss cannot “be based on speculation. Rather, the

¹³² *Id.* at 31; *see also* Crandall & Winston, *supra* note 130, at 15 (“[R]esearchers have not shown that government prosecution of alleged collusion has systematically led to significant nontransitory declines in consumer prices.”).

¹³³ 15 U.S.C. § 15(a) (2006) (emphasis added).

¹³⁴ *J. Truett Payne Co. v. Chrysler Motors Corp.*, 451 U.S. 557, 561 (1981) (internal quotation marks omitted).

¹³⁵ *Id.* at 562.

¹³⁶ *Id.*

¹³⁷ *Id.*; *see also* *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 489 (1977) (holding that “[p]laintiffs must prove . . . injury of the type the antitrust laws were intended to prevent”).

¹³⁸ *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 114 n.9 (1969) (emphasis omitted).

¹³⁹ *See* *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 557 (1931) (mentioning that there was sufficient evidence in the trial record “to enable the jury to ascertain the amount of the plaintiff's damages with reasonable certainty”).

required causal link must be proved as a matter of fact and with a fair degree of certainty.”¹⁴⁰

Once causation has been shown, plaintiffs bear a reduced burden of proof for the amount of damages.¹⁴¹ If a plaintiff can prove with reasonable certainty that it was harmed by an antitrust violation, it then must offer an estimate of damages that is not “based on speculation or guesswork.”¹⁴² The Supreme Court reasoned in *Story Parchment Co. v. Paterson Parchment Paper Co.*¹⁴³ that when the defendant causes a harm that is difficult to measure, it is unjust to let the defendant argue against recovery by saying that the plaintiff’s estimates are too uncertain.¹⁴⁴

This reduced standard of proof only applies once impact has been proven.¹⁴⁵ The Court, in *Story Parchment*, pointed out that the rule precluding recovery of uncertain damages bars damages only when it is uncertain whether they are the result of an antitrust violation; the rule does not bar damages when the amount of harm suffered is uncertain, but the harm definitely is the result of the violation.¹⁴⁶ The Court specifically noted that in that case, “[i]t is true that there was uncertainty as to the extent of the damage, but there was none as to the fact of damage.”¹⁴⁷

B. *The Role of Economic Analysis*

Economic analysis can be used both to determine whether there was impact and to quantify estimated damages. Once impact is established, the “guiding principle” of measuring antitrust damages “is that the antitrust victim should recover the difference between its actual economic condition and its ‘but for’ condition.”¹⁴⁸ In the case of a price-fixing conspiracy, the actual economic condition is the price paid during the course of the conspiracy.¹⁴⁹ The but-for condition is the price that would have been paid had the violation not occurred, holding all other economic conditions con-

¹⁴⁰ *Taylor Publ’g Co. v. Jostens, Inc.*, 216 F.3d 465, 485 (5th Cir. 2000) (quoting *Alabama v. Blue Bird Body Co.*, 573 F.2d 309, 317 (5th Cir. 1978)) (internal quotation marks omitted).

¹⁴¹ *See Story Parchment*, 282 U.S. at 562 (“[T]here is a clear distinction between the measure of proof necessary to establish the fact that petitioner had sustained some damage, and the measure of proof necessary to enable the jury to fix the amount.”).

¹⁴² *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251, 264 (1946); *see also Story Parchment*, 282 U.S. at 563 (“[D]amages may not be determined by mere speculation or guess . . .”).

¹⁴³ 282 U.S. 555 (1931).

¹⁴⁴ *Id.* at 563.

¹⁴⁵ *Id.* at 562.

¹⁴⁶ *Id.* (“The rule which precludes the recovery of uncertain damages applies to such as are not the certain result of the wrong, not to those damages which are definitely attributable to the wrong and only uncertain in respect of their amount.”).

¹⁴⁷ *Id.*

¹⁴⁸ 2A AREEDA ET AL., *supra* note 98, ¶ 392b, at 333.

¹⁴⁹ *Id.*

stant.¹⁵⁰ “[T]he antitrust damage calculation must isolate the effect of the antitrust violation. It should not include any other effects—good or bad—that influence the financial condition of the plaintiff.”¹⁵¹

But-for damage estimates differentiate between harms caused by the defendant’s illegal acts and harms attributable to independent factors.¹⁵² Plaintiffs are permitted to recover for the former, but not the latter.¹⁵³ “[A]n antitrust plaintiff’s damages should reflect the difference between its performance in a hypothetical market free of all antitrust violations and its actual performance in the market infected by the anticompetitive conduct.”¹⁵⁴

Damage estimates that fail to account for the effects of lawful competition, or otherwise fail to distinguish antitrust damages from harms caused by independent factors, are impermissibly speculative.¹⁵⁵ Plaintiffs must establish that the unlawful acts were “a material cause of at least *some* of its injury, rather than the injury being wholly attributable to other factors.”¹⁵⁶ Though a plaintiff “may well have suffered losses during the period of [the defendant’s] unlawful activity,” he would not be entitled to recover if he “made no effort to establish how much of the loss was due to that activity as distinct from unrelated business factors.”¹⁵⁷

C. *Econometric Analysis in a Civil Case*

Plaintiffs and defendants often rely on expert econometric models to estimate the damages (if any) in a civil price-fixing case. Econometric techniques are statistical methods designed to uncover the relationship between different variables.¹⁵⁸ When correctly implemented, econometric models can isolate the anticompetitive act from other economic factors and measure its

¹⁵⁰ *Id.*

¹⁵¹ *Id.* ¶ 392b, at 334.

¹⁵² *Id.* ¶ 392b, at 333-34.

¹⁵³ *Id.*

¹⁵⁴ Nat’l Farmers’ Org., Inc. v. Associated Milk Producers, Inc., 850 F.2d 1286, 1306 (8th Cir. 1988), *amended by* 878 F.2d 1118 (8th Cir. 1989); *see also* New York v. Julius Nasso Concrete Corp., 202 F.3d 82, 88 (2d Cir. 2000) (finding that the measure of damages in a price-fixing case is “the difference between the price actually paid by the [plaintiff] . . . and the price it would have paid absent the conspiracy”).

¹⁵⁵ *See, e.g.*, L.A. Mem’l Coliseum Comm’n v. NFL, 791 F.2d 1356, 1366 (9th Cir. 1986) (finding that antitrust plaintiffs cannot recover for damages wholly attributable to independent causes, but “a plaintiff need not prove that the antitrust violation was the *only* cause of its injury in order to recover damages under 15 U.S.C. § 15; proof that the violation was a *material cause* is sufficient” (emphases added)); Farley Transp. Co. v. Santa Fe Trail Transp. Co., 786 F.2d 1342, 1351-52 (9th Cir. 1985).

¹⁵⁶ *Farley*, 786 F.2d at 1349.

¹⁵⁷ Isaksen v. Vt. Castings, Inc., 825 F.2d 1158, 1165 (7th Cir. 1987).

¹⁵⁸ ABA SECTION OF ANTITRUST LAW, PROVING ANTITRUST DAMAGES: LEGAL AND ECONOMIC ISSUES 125 (2d ed. 2010).

effect on market outcomes.¹⁵⁹ Econometrics can control for the existence of lawful competition, the health of the plaintiff's business, and major factors affecting the market, including demand and supply shocks.¹⁶⁰

To establish impact and quantify a plaintiff's damages, an economist first must construct an economic model of the market, selecting a dependent variable (like prices, from which conclusions about injury can be drawn) and explanatory variables (like costs and consumer demand, which are factors that could influence the dependent variable).¹⁶¹ A model can draw on sources including economic theory to determine which factors are likely to affect prices, events in the market (like demand and supply shocks), and documentary evidence illustrative of the economic conditions of the market.¹⁶² If the model incorporates—and, thus, controls for—all factors that could affect price in a competitive market, it can determine whether there were any other factors, like the antitrust violation, that influenced prices.¹⁶³

There are two fundamental and frequently used methodologies to measure damages: the before-and-after approach and the yardstick approach.¹⁶⁴ The before-and-after approach identifies the effect of the antitrust violation by comparing prices during the violation with prices before and after the violation occurred.¹⁶⁵ If the model can control for all economic factors that affect prices, the plaintiff's performance during the "clean" period (i.e., before and after the violation) can be used to draw inferences about what the plaintiff's performance would have been during the conduct period but for the antitrust violation.¹⁶⁶

The yardstick approach uses data from a benchmark market where the unlawful conduct did not occur.¹⁶⁷ The unaffected market could, for example, be in a different geographic area than the market where the conduct occurred.¹⁶⁸ The benchmark market can be used to assess how the plaintiff would have fared but for the antitrust violation.¹⁶⁹ If the model accounts for

¹⁵⁹ *Id.*

¹⁶⁰ *See id.* (explaining that econometrics can be used to isolate the effect of the conspiracy from "a wide variety of other demand and supply factors unrelated to the alleged conspiracy").

¹⁶¹ *See* White et al., *supra* note 5, at 18 (explaining the purpose of regression analysis).

¹⁶² *See id.* at 20.

¹⁶³ *See id.* at 21.

¹⁶⁴ ABA SECTION OF ANTITRUST LAW, *supra* note 158, at 126-27; 2A AREEDA ET AL., *supra* note 98, ¶ 392d, at 335-36.

¹⁶⁵ ABA SECTION OF ANTITRUST LAW, *supra* note 158, at 126-27.

¹⁶⁶ 2A AREEDA ET AL., *supra* note 98, ¶ 392d, at 335-36.

¹⁶⁷ ABA SECTION OF ANTITRUST LAW, *supra* note 158, at 127.

¹⁶⁸ *See, e.g., id.* ("A benchmark market may be a different area than where the unlawful conduct occurred . . .").

¹⁶⁹ 2A AREEDA ET AL., *supra* note 98, ¶ 392d, at 336.

all economic factors that might have differed between the two markets, any difference in performance is attributable to the antitrust violation.¹⁷⁰

Sophisticated econometric analysis often is required in a civil case to isolate the harm caused by the antitrust violation.¹⁷¹ Market outcomes result from the complex interactions of a large number of supply and demand factors unrelated to any conspiracy; isolating and measuring the effect of the conspiracy requires properly accounting for these other factors.¹⁷² This analysis is very different from—and much more rigorous than—the 20 percent presumption and the government’s burden in a criminal case. One practical difficulty with requiring a similarly rigorous analysis in a criminal case is that the defendant rarely has the data that would be required to construct a reliable econometric model.¹⁷³

IV. IS A CIVIL-STYLE IMPACT ANALYSIS FEASIBLE IN A CRIMINAL CASE?

Whether a civil-style impact analysis is feasible in a criminal case turns on both the government’s willingness to consider this type of analysis and the defendant’s access to the data necessary for an econometric analysis. Even since *Booker* and its progeny, the Antitrust Division has been explicit about its unwillingness to consider a civil-style impact analysis during plea negotiations.¹⁷⁴ A defendant is further boxed in by the limited nature of criminal discovery (if any discovery is even allowed). Obtaining the requisite data is a critical hurdle to undertaking an econometric analysis that is comparable to the analyses performed in civil price-fixing cases. A defendant often will have produced its own transactional sales data in response to the grand jury subpoena, but data from the defendant’s alleged co-conspirators is necessary to better analyze the but-for world.¹⁷⁵

A criminal defendant has limited rights to discovery as circumscribed by the Federal Rules of Criminal Procedure and the case law interpreting

¹⁷⁰ See ABA SECTION OF ANTITRUST LAW, *supra* note 158, at 127 (explaining the comparison of the two markets in the benchmark or yardstick approach to draw inferences about the impact of the antitrust violation).

¹⁷¹ *Id.* at 125.

¹⁷² *Id.*; see also *Schiller & Schmidt, Inc. v. Nordisco Corp.*, 969 F.2d 410, 415-16 (7th Cir. 1992) (finding that “[p]ost hoc ergo propter hoc” is not a valid methodology of damage calculation, especially when it is apparent that there are other causal factors at work).

¹⁷³ See *infra* Part IV.

¹⁷⁴ Scott D. Hammond, Deputy Assistant Att’y Gen., U.S. Dep’t of Justice, Antitrust Div., Antitrust Sentencing in the Post-*Booker* Era: Risks Remain High for Non-Cooperating Defendants 10 (Mar. 30, 2005), available at <http://www.justice.gov/atr/public/speeches/208354.pdf>; Hammond, *supra* note 86, at 13.

¹⁷⁵ See ABA SECTION OF ANTITRUST LAW, *supra* note 158, at 126 (“Identification is often a function of the available data.”).

these rules.¹⁷⁶ Notably, a defendant has no right to pre-indictment discovery,¹⁷⁷ which is particularly constraining given the Antitrust Division's typical current practice when negotiating corporate plea agreements arising out of price-fixing investigations. A corporate defendant typically negotiates a plea agreement with the Antitrust Division in part to avoid being indicted. Following the Supreme Court's *Booker* decision, Scott D. Hammond, Deputy Assistant Attorney General for Criminal Enforcement at the Antitrust Division, stated that if a defendant wants to negotiate a plea "but is intent on litigating gain or loss for the determination of the fine amount or if under *Booker* it requests to litigate the Guidelines twenty percent loss presumption," the "Division will not engage in plea negotiations."¹⁷⁸

Hammond's statement is particularly significant because as a matter of criminal procedure, plea negotiations can occur pre- or post-indictment.¹⁷⁹ Post-indictment, as described below, a defendant has better opportunities to obtain the data that would be used to litigate the volume of affected commerce¹⁸⁰—yet, the Antitrust Division remains unwilling to engage in any meaningful impact analysis. Thus, under the Antitrust Division's policy, the outcome is the same regardless of the discovery available because the Antitrust Division will not engage in plea negotiations (pre- or post-indictment) if a defendant wants to litigate the 20 percent loss presumption. As Hammond himself concluded, as a result, "many companies are likely to continue to forgo the litigation of gain or loss because of the many positive consequences resulting from early cooperation."¹⁸¹

Post-indictment, if the parties do not execute a plea agreement, the matter will proceed to trial and sentencing. Rather than engaging in a full-blown trial that consumes significant resources, an alternative procedural mechanism exists in what is referred to as a "slow plea."¹⁸² With a slow plea, the defendant's objective is to have a limited trial on liability issues followed by an evidentiary sentencing hearing.¹⁸³ From a strategic perspec-

¹⁷⁶ FED. R. CRIM. P. 16; see also H. Lee Sarokin & William E. Zuckerman, *Presumed Innocent? Restrictions on Criminal Discovery in Federal Court Belie This Presumption*, 43 RUTGERS L. REV. 1089, 1089-92 (1991) (discussing the severe limitation on discovery in criminal cases as opposed to unrestricted discovery in civil cases). See generally 2 CHARLES ALAN WRIGHT & PETER J. HENNING, FEDERAL PRACTICE AND PROCEDURE § 253, at 81-105 (4th ed. 2009) (providing a thorough review of a criminal defendant's access to discovery).

¹⁷⁷ *In re Possible Violations of 18 U.S.C. §§ 201, 371, 491 F. Supp 211, 214-15* (D.D.C. 1980) (finding no right of pre-indictment discovery on the basis of Federal Rule of Criminal Procedure 16 or the due process clause of the Fifth Amendment).

¹⁷⁸ Hammond, *supra* note 174, at 10.

¹⁷⁹ Hammond, *supra* note 86, at 9.

¹⁸⁰ See *infra* notes 187-90 and accompanying text.

¹⁸¹ Hammond, *supra* note 174, at 10.

¹⁸² See, e.g., Jon Douglas Botsford, Comment, *Conditioned Guilty Pleas: Post-Guilty Plea Appeal of Nonjurisdictional Issues*, 26 UCLA L. REV. 360, 382 (1978) (internal quotation marks omitted).

¹⁸³ *Id.* at 382-83.

tive, the defendant would waive its right to a jury and contest only those facts that it believes are overstated in the indictment or that the Antitrust Division cannot prove. The evidence presented would include facts relevant to the impact or injury of the alleged conspiracy, in an effort to narrow the scope of the conspiracy.¹⁸⁴ For example, consistent with the types of cheating evidence seen in the *Hayter Oil* line of cases described in Part I, a defendant's evidence could include testimony about periods when the conspiracy was not in effect, that certain customers were outside the scope of the conspiracy, or that certain geographic areas were not affected. Following the trial, the defendant would be positioned to educate the judge about the true impact of the conspiracy, which, in theory, should be less than the "rough justice" of 20 percent of the volume of affected commerce that the Antitrust Division was relying on for purposes of the plea negotiations.¹⁸⁵

Setting aside the Antitrust Division's reluctance to litigate the 20 percent loss presumption, one possibility defendants should consider is sharing data on a joint-defense basis.¹⁸⁶ Although the Antitrust Division's investigations may be nonpublic, a defendant often learns the identities of its alleged co-conspirators through its own internal investigation, the staff's statements and allegations, or public statements by the investigated companies.¹⁸⁷ Other possibilities for learning the identity of a co-conspirator include where a co-conspirator has already pled guilty (making its plea agreement public through a court filing) or there is a civil-litigation proceeding on a relatively parallel track (i.e., plaintiffs often file direct purchaser suits immediately following the announcement of a plea agreement by a single co-conspirator.)¹⁸⁸ While the production and use of transactional data in civil litigation likely will be governed by a protective order that prohibits its use

¹⁸⁴ See *id.* at 383 n.105 (describing the stipulation on transcript proceeding).

¹⁸⁵ See *supra* text accompanying notes 66-68.

¹⁸⁶ Cf. A. Paul Victor, *The Growth of International Criminal Antitrust Enforcement*, 6 GEO. MASON L. REV. 493, 500 (1998) (mentioning that joint defendants with separate counsel should enter into a joint defense agreement "that will enable [them] to exchange information without sacrificing . . . privileges").

¹⁸⁷ See, e.g., Class Action Complaint at ¶¶ 59-75, *Precision Assocs., Inc. v. Panalpina World Transp. (Holding) Ltd.*, No. 08-0042 (E.D.N.Y. Jan. 3, 2008) (discussing public statements regarding the freight forwarding investigation in the United States); Jeff Bennett & Peppi Kiviniemi, *Car-Parts Makers Raided in Price-Fixing Probe—FBI, European Commission and Japanese Authorities Look into Possible Collusion in Market for Automotive Wiring Systems*, WALL ST. J., Feb. 26, 2010, at B1 (reporting on "an international investigation of auto-parts makers over alleged price-fixing and other antitrust concerns").

¹⁸⁸ Compare Class Action Complaint, *Kang v. Korean Air Lines Co., Ltd.*, No. 3:07cv05406 (C.D. Cal. Oct. 23, 2007) (filing a direct purchaser suit within months of the finalization of the defendant's plea agreement with the government), with Plea Agreement, *United States v. Korean Air Lines Co.*, No. 07-184 (D.D.C. Aug. 1, 2007) (establishing a plea agreement with the defendant airline for participating in a price-fixing conspiracy).

for purposes other than the litigation itself,¹⁸⁹ civil litigation (or the threat of civil litigation) should serve as an impetus for data sharing during a criminal investigation. It is in the interest of alleged co-conspirators to reduce their volumes of affected commerce and minimize their criminal fines, in an effort to minimize joint-and-several liability in civil litigation. In addition to joint-and-several liability, civil defendants face trebled damages.¹⁹⁰ Alternatively, a defendant may rely on its own transactional data to perform an economic analysis that, while not as comprehensive, may nonetheless illuminate the inquiry into the volume of affected commerce.

Unfortunately, beyond the possibilities of data sharing or relying only on one's own data, a defendant's hands are largely tied during the pre-indictment stage of the investigation during which plea negotiations that result in a criminal fine typically occur. If pre-indictment plea negotiations fail or a defendant chooses to litigate against the government, the next step is for the government to indict the defendant. Once indicted, there are additional—albeit limited—discovery possibilities. Federal Rule of Criminal Procedure 16(a)(1)(B)(i) provides that, at a defendant's request, the government must allow the defendant to copy documents—including data—that are material to the defendant's defense and “within the government's possession, custody, or control.”¹⁹¹ This would include co-conspirators' transactional sales data. Federal Rule of Criminal Procedure 17(c) governs the production of documents and data pursuant to subpoena.¹⁹² An indicted defendant could subpoena the requisite data from its alleged co-conspirators, although the subpoenaed entities may try to resist the production of data either through negotiations to narrow the scope of the subpoena or a motion to quash or modify the subpoena.¹⁹³ Subpoenas may also present a timing issue to the extent the alleged co-conspirator has not already collected or produced the data to the government. As with the data-sharing proposal discussed above, it would be advantageous for defendants to realize their aligned interests at the criminal stage given the prospect of future (or even ongoing) civil litigation.

Another post-indictment possibility for obtaining data is through the government's *Brady* obligations. Following the Supreme Court's decision in *Brady v. Maryland*¹⁹⁴ and subsequent case law interpreting *Brady*, federal prosecutors are obligated to disclose potentially exculpatory, material in-

¹⁸⁹ See, e.g., Confidentiality Stipulation and Protective Order Governing Production of Documents Between Plaintiffs and Defendants at 1, 3-4, *In re Air Cargo Shipping Servs. Antitrust Litig.*, No. 06-MD-1775 (JG) (VVP) (E.D.N.Y. Aug. 15, 2007) (restricting the use of discovery information outside of the terms of the protective order); MANUAL FOR COMPLEX LITIGATION (FOURTH) § 11.432 (2004).

¹⁹⁰ 15 U.S.C. § 15(a) (2006).

¹⁹¹ FED. R. CRIM. P. 16(a)(1)(B)(i).

¹⁹² FED. R. CRIM. P. 17(c).

¹⁹³ FED. R. CRIM. P. 17(c)(2).

¹⁹⁴ 373 U.S. 83 (1963).

formation that is in their possession.¹⁹⁵ This obligation extends to information that relates to sentencing as well as liability.¹⁹⁶ Relying on *Brady*, a defendant should be able to get access to the data necessary to effectively litigate impact at the sentencing stage. This argument is buttressed by the DOJ's pronouncement last year that "consistent with the Principles of Federal Prosecution and given the advisory nature of the guidelines, advocacy at sentencing . . . must also follow from an individualized assessment of the facts and circumstances of each particular case."¹⁹⁷

There are at least two hurdles to conducting a civil-style impact analysis. First, it is true that there are greater limitations to obtaining data in criminal cases than in civil cases. However, voluntary data sharing, subpoena production, and the government's *Brady* obligations provide avenues through which defendants in criminal cases may obtain the necessary data. Second, contrary to its current policy, the Antitrust Division must be willing to engage in plea negotiations when a defendant wants to challenge the Sentencing Guidelines' 20 percent presumption.

CONCLUSION

Parties negotiating plea agreements with the Antitrust Division should bring the tools employed in civil cases to bear on the issue of what volume of commerce has been affected by the alleged violation. Defendants not only have better econometric techniques at their disposal to question the 20 percent presumption in the Sentencing Guidelines than they did previously, but a stronger legal framework following *Booker* and its progeny. There is no reason why blunt instruments or rules of thumb should be the order of the day in the criminal setting when more sophisticated—and readily accessible—techniques are used in civil cases to assess what impact, if any, flowed from a cartel violation. While the criminal setting poses some impediments to accessing the data of other alleged co-conspirators (unlike a civil case, where each defendant as a matter of right has access to the data produced by any other defendant¹⁹⁸), those impediments alone should not spell the death knell for analyzing the Sentencing Guidelines' volume of affected commerce and the Clayton Act's injury requirement in similar ways. To the contrary, even the data of the negotiating entity, when scrutinized using

¹⁹⁵ *Id.* at 87; see also *United States v. Agurs*, 427 U.S. 97, 110 (1976) ("[T]here are situations in which evidence is obviously of such substantial value to the defense that elementary fairness requires it to be disclosed even without a specific request.").

¹⁹⁶ See *Strickler v. Greene*, 527 U.S. 263, 296 (1999) (holding that exculpatory evidence is material if "there is a reasonable probability that [the defendant's] conviction or sentence would have been different had these materials been disclosed").

¹⁹⁷ Holder Memo, *supra* note 83, at 2-3.

¹⁹⁸ FED. R. CIV. P. 26(b)(1) ("Unless otherwise limited by court order . . . [p]arties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense . . .").

traditional econometric analyses, may reveal important insights about whether an agreement had an effect. It is time for an alignment of the criminal and civil approaches to the issue of impact.