

In the  
United States Court of Appeals  
For the Seventh Circuit

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Nos. 22-2370 & 22-2413

MOTOROLA SOLUTIONS, INC. and  
MOTOROLA SOLUTIONS MALAYSIA SDN. BHD.,  
*Plaintiffs-Appellees, Cross-Appellants,*

*v.*

HYTERA COMMUNICATIONS CORPORATION LTD.,  
*Defendant-Appellant, Cross-Appellee.*

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Appeals from the United States District Court for the  
Northern District of Illinois, Eastern Division.  
No. 1:17-cv-01973 — **Charles R. Norgle**, *Judge.*

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ARGUED DECEMBER 5, 2023 — DECIDED JULY 2, 2024

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Before HAMILTON, BRENNAN, and ST. EVE, *Circuit Judges.*

HAMILTON, *Circuit Judge.* This case concerns a large and blatant theft of trade secrets. Plaintiff Motorola and defendant Hytera compete globally in the market for two-way radio systems. Motorola spent years and tens of millions of dollars developing trade secrets embodied in its line of high-end digital mobile radio (DMR) products. For a brief period in the early

2000s, Hytera struggled to overcome technical challenges to develop its own competing DMR products.

After failing for years, Hytera hatched a new plan: “leapfrog Motorola” by stealing its trade secrets. Hytera, headquartered in China, poached three engineers from Motorola in Malaysia, offering them high-paying jobs in exchange for Motorola’s proprietary information. Before those engineers left Motorola, and acting at Hytera’s direction, they downloaded thousands of documents and computer files containing Motorola’s trade secrets and copyrighted source code. Relying on that stolen material, between 2010 and 2014, Hytera launched a line of DMR radios that were functionally indistinguishable from Motorola’s DMR radios. Hytera sold these professional-tier radios containing Motorola’s confidential and proprietary technology for years in the United States and abroad.

In 2017, Motorola sued Hytera for copyright infringement and trade secret misappropriation. After three and a half months of trial, the jury found that Hytera had violated both the Defend Trade Secrets Act of 2016 (DTSA) and the Copyright Act. The jury awarded compensatory damages under the Copyright Act and both compensatory and punitive damages under the DTSA for a total award of \$764.6 million. The district court later reduced the award to \$543.7 million and denied Motorola’s request for a permanent injunction. Hytera has appealed, and Motorola has cross-appealed.

The most startling fact about these appeals is that Hytera’s liability is not at issue. It concedes that it engaged in the blatant theft of trade secrets and copying of proprietary computer code. Instead, Hytera raises several challenges only to the damages awards under the Copyright Act and the DTSA.

As we explain below, we must remand for the district court to recalculate copyright damages, which will need to be reduced substantially from the district court's original award of \$136.3 million. On the DTSA damages, we affirm the district court's award of \$135.8 million in compensatory damages and \$271.6 million in punitive damages.

On Motorola's cross-appeal, we find that the district court erred in denying Motorola's motion for reconsideration of the denial of permanent injunctive relief. On remand, the district court will need to reconsider the issue of permanent injunctive relief. We continue to commend both district judges (Judge Norgle and, after his retirement, Judge Pacold) who have presided over this case for their careful handling of this complex and sprawling case. We remain confident of the court's ability to resolve the remaining issues on remand.

## I. *Factual and Procedural History*

### A. *Factual History*

Motorola and Hytera both design, manufacture, and sell two-way radios and related products worldwide. They are the two main competitors in this global market. They rely on the same underlying software protocols to enable their radios to communicate across brands, but each manufacturer enhances its radios by adding unique hardware and software features. From the late 1980s through the early 2000s, Motorola worked to develop and patent the technology underlying these standard software protocols, known as "digital mobile radio" or DMR.<sup>1</sup>

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<sup>1</sup> Citations to the record are abbreviated as follows: "Dkt." refers to the district court docket entries; "A" refers to the required appendix at the

Hytera manufactures and sells different tiers of two-way DMR radios, including commercial and professional. The products at issue in this case are Hytera's professional-tier radios, used by governments and public-safety entities around the world. They sell at premium prices compared to Hytera's non-infringing commercial-tier radios. In 2006, as internal Hytera documents show, Hytera was struggling to develop its own DMR radios comparable to Motorola's. Instead of continuing to compete fairly, Hytera decided to steal Motorola's trade secrets and copyrighted code. Hytera's goal was to "leapfrog Motorola" to become the world's preeminent provider of DMR radios.

In June 2007, the president and CEO of Hytera, Chen Qingzhou, reached out to an engineer who worked for Motorola in Malaysia, G.S. Kok, claiming that Hytera hoped to set up a potential research-and-development center in Malaysia. The two negotiated Kok's departure from Motorola. Hytera offered Kok 600,000 shares of Hytera stock as compensation, worth roughly \$2.5 million when Hytera's stock later went public. Internal Hytera emails show that once Kok joined Hytera, he facilitated the hiring of two additional Motorola engineers in Malaysia, Y.T. Kok and Sam Chia. Y.T. Kok initially maintained his employment with Motorola while surreptitiously also working for Hytera. In June 2008, shortly after Y.T. Kok had secretly been added to Hytera's payroll, he downloaded over a hundred Motorola documents in response to specific requests from Hytera about unresolved issues with its own DMR radios. Evidence at trial showed that Y.T. Kok and Chia downloaded more than 10,000 technical

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end of Hytera's opening brief; and "SA" refers to the supplemental appendix at the end of Motorola's response brief.

documents from Motorola's secure ClearCase and COMPASS databases and brought them to Hytera. At the time of trial, Motorola argued, more than 1,600 of those documents remained in Hytera's possession.

The stolen files included Motorola's source code for its DMR radio project. Segments of the stolen code were later directly inserted into Hytera's products. Proof of the theft and copying included the fact that minor coding errors in Motorola's code appeared in exactly the same spots in Hytera's code.

Hytera's employees understood that their use of Motorola's copyrighted code and trade secrets was unlawful. At times, Hytera modified Motorola's code to conceal its illicit origins. Hytera's engineers also circulated Motorola's code and technical documents, sometimes with the Motorola logo replaced by a Hytera logo, but other times still labeled with Motorola's logo.

Between 2010 and 2014, Hytera launched a line of DMR radios that were, as described at trial, functionally indistinguishable from the DMR radios developed and sold by Motorola. For years, Hytera sold these professional-tier radios containing Motorola's confidential and proprietary technology worldwide, including in the United States. Hytera also regularly attended trade shows in the United States where it marketed and demonstrated its infringing products to customers from around the world. According to Motorola, Hytera has continued to sell products using Motorola's misappropriated trade secrets and copyrighted code up to the present day.

### B. *Procedural History*

This brings us to the present lawsuit. In March 2017, Motorola filed this lawsuit in the Northern District of Illinois alleging that Hytera had misappropriated its trade secrets in violation of the federal Defend Trade Secrets Act of 2016, 18 U.S.C. § 1836(b), and the Illinois Trade Secrets Act (ITSA), 765 ILCS 1065/1 et seq. In August 2018, Motorola amended its complaint to add infringement claims under the Copyright Act, 17 U.S.C. §§ 106, 501 et seq.

The case was tried to a jury starting in November 2019. After three and a half months of trial, the jury reached its verdict. With respect to the DTSA, the jury was instructed that Motorola was seeking damages from May 11, 2016 (the statute's effective date) to June 30, 2019. With respect to copyright infringement, the jury was instructed that Motorola was entitled to recover Hytera's profits through June 30, 2019. The jury was also instructed that damages for Motorola's trade secret claims and copyright claims should not result in double recovery for the same injury. During trial, Motorola argued that it was entitled to all of Hytera's worldwide profits from the infringing products. Motorola presented expert testimony that Hytera's radios would be unable to function without the stolen components.

Hytera, for its part, argued that Motorola's damages should be limited on a number of grounds, including that: (1) copyright damages should be limited to the three-year period before Motorola added its copyright claims; (2) the Copyright Act and the DTSA should not be applied to Hytera's sales outside the United States; and (3) DTSA damages and copyright damages should be "apportioned" to account for Hytera's own contributions to the success of its products. The

district court rejected all of these arguments. The jury returned a verdict in favor of Motorola in all respects, awarding Motorola \$345.8 million in compensatory damages and \$418.8 million in punitive damages, for a total of \$764.6 million.

Post-trial motions followed. Hytera moved under Federal Rules of Civil Procedure 50(b) and 59 for judgment as a matter of law and for a new trial or remittitur, respectively, arguing that under both the Copyright Act and the DTSA, the proper amount of unjust enrichment damages was an equitable issue for the court rather than the jury. Hytera renewed its extraterritoriality and Copyright Act statute of limitations arguments. Hytera also argued that the punitive damages award under the DTSA violated its due process rights.

The district court agreed with Hytera that unjust enrichment damages presented an equitable issue for the court. That meant the jury's findings on those amounts were advisory and the district court was required to state its findings of fact and conclusions of law under Federal Rule of Civil Procedure 52(a)(1). The parties submitted proposed findings and conclusions on the unjust enrichment issues after trial. Motorola was required to file its proposal first. It was not given an opportunity to reply to Hytera's proposal. Hytera's proposal renewed an argument from trial that recovery of its unjustly enriched profits would duplicate recovery of its avoided research and development (R&D) costs. Hytera also renewed its arguments that both the copyright and DTSA unjust enrichment awards should be apportioned to account for Hytera's own contributions to its infringing products.

In a follow-up order, the district court agreed with Hytera that the unjust enrichment damages awarded by the jury improperly double-counted Hytera's profits and its avoided

R&D costs. The district court deducted the amount of avoided R&D costs of \$73.6 million from the jury's original \$209.4 million DTSA compensatory damages award, arriving at \$135.8 million as the total amount of Hytera's unjust profits under the DTSA. The court then adjusted the punitive damages downward in accord with the advisory jury's two-to-one ratio, yielding a punitive damages award of \$271.6 million. After these rulings, the district court formally issued its final findings and conclusions. Hytera's unjustly enriched profits under the Copyright Act from 2010 to May 2016 were \$136.3 million, its unjustly enriched profits under the DTSA from May 2016 to June 2019 were \$135.8 million, and punitive damages under the DTSA were \$271.6 million, yielding a total award of \$543.7 million. Along the way, the district court also found that Motorola's lost profits under the DTSA were \$86.2 million, and that Hytera's avoided R&D costs were \$73.6 million. The court again rejected Hytera's arguments with respect to extraterritoriality, apportionment, and the copyright statute of limitations, and rejected the due process challenge to punitive damages.

After trial, Motorola sought a permanent injunction to prohibit Hytera from selling the infringing products worldwide or making any other use of the stolen intellectual property. The district court denied permanent injunctive relief in December 2020, finding that Motorola could not establish that it had no other adequate remedy at law. The district court found that Motorola could be adequately compensated for Hytera's continuing use of its intellectual property and trade secrets with a reasonable, ongoing royalty, which the court later set at 100 percent of Hytera's profits on the infringing products beginning in July 2019. Motorola moved for reconsideration of this denial under Federal Rule of Civil Procedure

60(b) in September 2021, submitting new evidence of Hytera's inability or unwillingness to make its required royalty payments. Before the district court ruled on that motion, however, Hytera filed this appeal, and Motorola then filed its cross-appeal of the district court's denial of permanent injunctive relief. Holding that Motorola's notice of appeal stripped it of jurisdiction to decide Motorola's Rule 60(b) motion, the court denied that motion without expressing any view on the merits.

We must conclude our discussion of this case's procedural history by noting that for much of the intervening six years of litigation, including after these appeals were filed, Hytera has continued its gamesmanship and deception. It deleted stolen documents rather than producing them. It presented fabricated evidence inflating its research-and-development costs. Its witnesses have repeatedly contradicted themselves in depositions and at trial. It has dragged its feet in paying the royalty ordered by the district court, and it has obstructed discovery into its assets and ability to pay. Meanwhile, Hytera continues to sell DMR radios worldwide that Motorola claims still incorporate its copyrighted code and stolen trade secrets. Whether Hytera's new DMR products continue the illicit use of Motorola's trade secrets is the subject of ongoing contempt proceedings before the district court. Hytera's violation of the district court's anti-suit injunction issued in the course of those contempt proceedings and the resulting contempt sanctions were recently the subject of emergency motions in a successive appeal pending before this panel. See *Motorola Solutions Malaysia SDN. BHD. v. Hytera Communications Corp.*, No. 24-1531, Order, ECF No. 9 at 7 (April 6, 2024) ("Given Hytera's record of behavior, from the underlying theft of trade secrets and copyright infringement to sanctionable

conduct before trial, the post-verdict litigation in this case, the failure to pay royalties as ordered (leading to an earlier contempt finding), filing the long-secret Shenzhen case, and its responses to the injunctions at issue here, Hytera has shown that its unverified representations to the tribunal cannot be trusted.”).

In this appeal, Hytera raises six distinct challenges to the damages awarded under the Copyright Act and the DTSA. Three concern copyright and three the DTSA. With respect to the copyright award, Hytera argues: (1) copyright damages should not have been awarded for its sales outside the United States; (2) copyright damages should have been apportioned to account for its own contributions to its profits; and (3) the Copyright Act bars recovery of damages incurred more than three years before the claims were added. With respect to the DTSA, Hytera argues: (1) DTSA damages should not have been awarded for its sales outside the United States; (2) DTSA damages should have been apportioned to account for its own contributions to its profits; and (3) the \$271.6 million punitive damages award violates the Fifth Amendment’s due process clause. In its cross-appeal, Motorola challenges the district court’s denial of both its motion for permanent injunctive relief and its Rule 60(b) motion for reconsideration.

We address the issues in that order. On the copyright issues, we remand for the district court to recalculate the copyright damages limited to Hytera’s domestic sales and to reconsider the issue of apportionment. This means the copyright award will ultimately be reduced substantially from the original award of \$136.3 million, perhaps by roughly an order of magnitude. On the DTSA issues, we affirm the compensatory damages award of \$135.8 million and the punitive

damages award of \$271.6 million. Finally, we hold that the district court needs to reconsider Motorola's Rule 60(b) motion and the issue of permanent injunctive relief.

## II. *Copyright Damages for Foreign Sales*

First, we address the extraterritorial application of the Copyright Act. Motorola argues that it is entitled to recover Hytera's profits on worldwide sales of infringing products. Hytera argues that Motorola's recovery should be limited to only Hytera's sales of infringing products in the United States.

Like all federal statutes, the Copyright Act is subject to the presumption against extraterritoriality, which assumes that "United States law governs domestically but does not rule the world." *RJR Nabisco, Inc. v. European Community*, 579 U.S. 325, 335 (2016), quoting *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 454 (2007). The Supreme Court has set out a two-step framework for determining whether a statute applies extraterritorially. See *id.* at 337. First, courts should ask "whether the presumption against extraterritoriality has been rebutted—that is, whether the statute gives a clear, affirmative indication that it applies extraterritorially." *Id.* With respect to the Copyright Act at this step, the Supreme Court has said no. *Impression Products, Inc. v. Lexmark Int'l, Inc.*, 581 U.S. 360, 379 (2017).

If the statute does not rebut the presumption against extraterritoriality, courts should proceed to the second step: determining whether "the conduct relevant to the statute's focus occurred in the United States" or "in a foreign country." *RJR Nabisco*, 579 U.S. at 337. The second step asks whether the present case involves only a permissible domestic application of the statute. *Id.* Under this second step, copyright protection

extends to infringing acts committed abroad if those acts are sufficiently related to a predicate act of infringement in the United States. Circuit courts have developed the “predicate-act doctrine” to govern this second step of the extraterritoriality analysis under the Copyright Act. The doctrine holds that a copyright owner may recover damages for foreign infringement if two conditions are met: (1) an initial act of copyright infringement occurred in the United States, and (2) the domestic infringement enabled or was otherwise “directly linked to” the foreign infringement for which recovery is sought. *Tire Engineering & Distrib., LLC v. Shandong Linglong Rubber Co.*, 682 F.3d 292, 306–08 (4th Cir. 2012) (collecting cases and locating origins of doctrine in *Sheldon v. Metro-Goldwyn Pictures Corp.*, 106 F.2d 45, 52 (2d Cir. 1939) (Hand, J.)).

The predicate act required by the first prong of the doctrine must constitute “a domestic violation of the Copyright Act.” *Tire Engineering*, 682 F.3d at 307. Motorola, as the plaintiff, bears the burden of establishing a domestic violation of the Copyright Act. *Id.* At trial and on appeal, Motorola has offered only one theory for a potential predicate act of copyright infringement completed by Hytera in the United States: its so-called “server theory.” The parties agree that Hytera’s thieves in Malaysia downloaded copyrighted source code from Motorola’s ClearCase database. Motorola argues that because the ClearCase database has a “main server in Illinois” that is “mirrored” on other servers around the world, the thieves’ unauthorized download constituted a domestic predicate act of copyright infringement.<sup>2</sup> The question for us is whether the

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<sup>2</sup> “Mirroring” means creating a duplicate copy of a database, or subsets of a database, on a new server, turning that new server into a

download of Motorola's source code from the company's ClearCase database constituted "a domestic violation of the Copyright Act." *Id.* at 307.

The district court accepted Motorola's argument, relying on Motorola's server theory to supply the domestic predicate act of infringement and finding that Motorola was entitled to damages for Hytera's worldwide sales as unjust enrichment. We must respectfully disagree. Motorola failed to provide evidence that the code was downloaded from its Illinois server versus one of the mirrored instances of the ClearCase database stored on servers outside the United States. The district court's factual finding that the code was downloaded from the Illinois server lacks adequate support in the record, and we reverse that factual finding as clearly erroneous. Motorola thus failed to establish the first prong of the predicate-act doctrine: a completed act of copyright infringement in the United States. Motorola is not entitled to recover damages for any of Hytera's foreign sales of infringing products under the Copyright Act.<sup>3</sup>

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"mirror." The mirror is instructed to check with the main server and every other mirrored server worldwide in real-time or near real-time for updates and changes made to the database. Mirroring thereby creates a network of servers around the world, each housing either a complete and up-to-date copy of the database or at least the most frequently accessed parts of the database, so that the database can be used and modified simultaneously by programmers around the world. Multinational corporations sometimes choose to mirror key databases onto servers that are geographically closer to programmers on other continents, reducing the time it takes for those programmers to exchange messages with the server and building in redundancies to guard against a server failure in one part of the world.

<sup>3</sup> In awarding relief for foreign sales under the Copyright Act, the district court also seemed to rely on the fact that Hytera "promoted,

Motorola failed to supply evidence that the source code was illicitly downloaded from its Illinois server as opposed to one of the mirrored servers located abroad. At trial, Motorola's primary technical expert explained that the "main" ClearCase server is in Illinois and that the contents of that server are "mirrored" on servers in other locations around the world, including Sri Lanka, Bangladesh, Malaysia, and China.

Crucially, Motorola's expert admitted that "there's no evidence of the actual downloads from" the main ClearCase server in Illinois, as opposed to one of the mirrored servers abroad. SA77. Motorola counters with the same expert's testimony that, even if there is no evidence that the source code was downloaded from the Illinois server, "anything that happens on one of [the foreign mirrored servers] goes to Illinois." SA74. The district court considered this second statement sufficient to support a factual finding that Motorola's copyrighted code was illicitly downloaded from the Illinois server. We disagree.

We understand this second statement to mean that the mirrored ClearCase servers are linked in a way typical of mirrored servers, in which a log of everything that happens to every copy of the database worldwide is automatically

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advertised, marketed, and sold its DMR products containing Motorola's copyrighted source code in the United States, including at trade shows." Hytera pointed out in its opening brief that marketing, advertising, and promoting products containing copyrighted code are not themselves copyright violations and thus cannot be domestic predicate violations. In its response brief, Motorola did not challenge this argument, forfeiting reliance on the trade-show theory to support extraterritorial copyright damages.

reported to every other mirrored server, so that each mirror can then make identical changes to its own local copy of the database. For instance, if Hytera's thieves in Malaysia downloaded parts of the ClearCase database from the mirrored server in Malaysia, a notice that a download had occurred would be immediately forwarded to the server in Illinois, which would add the notice of the download to the records of events that had happened to the database. Only in this sense is it true that "anything that happens on one of" Motorola's mirrored servers "goes to Illinois." See SA74.

The existence of a typical mirroring relationship between foreign and domestic servers does not mean that an illicit copy made anywhere in the world was necessarily downloaded from a domestic server. Motorola's expert admitted there was no evidence that the stolen code had been downloaded from the Illinois server. He did not know "which particular cache or server" the Hytera thieves "connected to" in order to download the stolen source code. SA75. Rather, the most that Motorola's expert could say was that material on ClearCase servers outside the United States "reflected," that is, duplicated, "material that is in Illinois." *Id.* Given the location of the thieves in Malaysia, it seems likelier (or at least, would have been more efficient) for the thieves to download the copyrighted code from Motorola's Malaysia server. And in any event, the burden of proof was on Motorola on this issue.

Downloads of copyrighted data from mirrored servers located abroad cannot serve as predicate acts of domestic infringement even if the "main" instance of those databases is stored on a U.S.-based server. A contrary rule would stretch U.S. copyright law far beyond its proper borders, giving

global businesses an incentive to store local copies of copyrighted files in the United States as insurance against intellectual property theft worldwide. Consider the parallel case of a book publisher who chooses to distribute identical copies of a book in the United States and in multiple other countries. If a foreign competitor obtains one of the copies distributed abroad, reproduces it abroad, and sells it abroad, no domestic act of copyright infringement has occurred. The existence of the original copy of the book in the United States makes no difference.

In the same way, by choosing to store copies of their copyrighted data abroad in mirrored servers, U.S. copyright owners take the risk that illicit copying will be beyond the reach of U.S. copyright law. If a copyright owner hopes to prove infringement based solely on the illicit download of copyrighted material but has stored identical copies of that material in servers abroad, it must be prepared to show that the unauthorized download was made from a U.S.-based server. See *Authors Guild, Inc. v. HathiTrust*, 755 F.3d 87, 98–99 (2d Cir. 2014) (treating back-ups of copyrighted data stored in mirrored servers as complete copies for purposes of copyright fair-use analysis).<sup>4</sup>

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<sup>4</sup> Even if Motorola had offered evidence that Hytera’s thieves in Malaysia had downloaded the source code from Motorola’s server in Illinois, at least two circuits (one in a precedential opinion) have refused to extend the predicate-act doctrine to reach foreign infringement where the only predicate act alleged was the download of content from a server located in the United States to a computer located abroad. See *IMAPizza, LLC v. At Pizza Ltd.*, 965 F.3d 871, 877–79, 878 n.2 (D.C. Cir. 2020); *Superama Corp. v. Tokyo Broadcasting System Television, Inc.*, 830 F. App’x 821, 823–24 (9th Cir. 2020) (non-precedential). This circuit has not addressed this issue.

Because Motorola failed to prove that Hytera's thieves made their unauthorized download from the Illinois server, as opposed to one of Motorola's mirrored servers abroad, its server theory fails at step one of the predicate-act doctrine. Without a completed domestic violation of the Copyright Act, Motorola is not entitled to recover damages for any of Hytera's foreign sales of infringing products as unjust enrichment. We reverse the district court on this issue and remand with instructions to limit Motorola's copyright award to Hytera's domestic sales of infringing products.<sup>5</sup>

### III. *Copyright Apportionment*

Next, Hytera seeks to pare the copyright damages further, arguing that even limited to Hytera's profits within the United States, the district court's award overcompensates Motorola. Under the Copyright Act, an infringer may trim a disgorgement award by showing "elements of profit attributable to factors other than the copyrighted work." 17 U.S.C. § 504(b).

We agree with Hytera that this issue needs a fresh look because we cannot determine whether the district court applied

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Because Motorola has no evidence that its copyrighted data was downloaded from a U.S.-based server, we do not need to reach it here.

<sup>5</sup> Motorola also argues that its entitlement to extraterritorial damages is barred from reexamination because it was actually and necessarily decided by a jury. The jury verdict awarded Motorola copyright damages for foreign sales. However, the district court later ruled that disgorgement of Hytera's profits was an equitable remedy for the court to resolve, and the court decided the extraterritoriality issues itself. Any jury findings on the issue were rendered advisory by the district court's later ruling. The district court's factual findings on the locations of the illicit downloads are properly subject to appellate review for clear error.

the correct legal standard in deciding whether to apportion those damages. We remand for the district court to apply the proper legal standard, taking no position on the outcome of the apportionment analysis in this case. We hold only that Hytera should get a chance to prove a proximate-cause theory of apportionment.<sup>6</sup>

Hytera takes aim at the district court's reliance on "but-for" causation to refuse copyright apportionment. The district court accepted Motorola's argument that, without the stolen intellectual property, Hytera's infringing radios would never have reached the market. It found that "none of Hytera's DMR radios would function without Motorola's copyrighted source code." A93. That conclusion apparently justified the district court's next move. It opted not to apportion damages, instead ordering Hytera to disgorge all of its profits from infringing radio sales.

That last move may have been based on a legal error. We explain by reviewing the origins of apportionment in copyright law. The doctrine emerged in the early days of the film

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<sup>6</sup> Motorola argues that Hytera forfeited this theory of proximate-cause apportionment by failing to present it to the jury. We disagree. Hytera presented these arguments to the proper factfinder, the district court, at its first opportunity to do so with its Federal Rule of Civil Procedure 52(b) filings, so the arguments are not forfeited. See Dkt. No. 1096-1, at ¶¶ 95–285. Because the parties tried this case to an advisory jury, at least as to these unjust-enrichment issues, the district court was the proper factfinder. See Fed. R. Civ. P. 52(a)(1); see also *OCI Wyoming, L.P. v. PacifiCorp*, 479 F.3d 1199, 1205–06 (10th Cir. 2007) (for factual issues presented to an advisory jury, district court retains "duty to conduct factfinding" and "review on appeal is of the findings of the court as if there had been no verdict from an advisory jury." (quoting *Marvel v. United States*, 719 F.2d 1507, 1515 n.12 (10th Cir. 1983))).

industry. When Hollywood adapted the play *Dishonored Lady* for the silver screen, the resulting movie—called *Letty Lynton*—was released without permission from the original playwright. See *Sheldon v. Metro-Goldwyn Pictures Corp.*, 309 U.S. 390, 396–97 (1940). Infringement was plain. The question, though, was how to divide up the profits from the infringing movie. The storyline from the play helped draw crowds to movie theaters, but so did the headline actors and the producers’ skill in bringing the film to market. Harmonizing copyright law with patent cases, the Supreme Court concluded that, to avoid “the manifest injustice of giving to [the playwright] all the profits made by the motion picture,” it would apportion the profits “so that neither party will have what justly belongs to the other.” *Id.* at 408. The Court affirmed an apportionment that gave the playwright 20 percent of the film’s profits. *Id.* at 408–09.

Today, *Sheldon’s* legacy is a two-part test for entitlement to apportionment of profits: the infringer must show (1) “that all the profits are not due to the use of the copyrighted material,” and (2) that “the evidence is sufficient to provide a fair basis of division.” *Id.* at 402. In the intervening decades, Congress has amended the Copyright Act to follow *Sheldon*: “In establishing the infringer’s profits, the copyright owner is required to present proof only of the infringer’s gross revenue, and the infringer is required to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work.” 17 U.S.C. § 504(b).

Over the years, case law has developed two parallel tracks for infringers to meet *Sheldon’s* first element, which is really a “rule of causation.” *Walker v. Forbes, Inc.*, 28 F.3d 409, 412 (4th Cir. 1994). We refer to these as the “but-for” and “proximate-

cause” tracks. Under the first, “the defendant can attempt to show that consumers would have purchased its product even without,” that is, but for, “the infringing element.” *Data General Corp. v. Grumman Systems Support Corp.*, 36 F.3d 1147, 1175 (1st Cir. 1994), abrogated on other grounds by *Reed Elsevier, Inc. v. Muchnick*, 559 U.S. 154 (2010).

Under the second “proximate-cause” track, the defendant can attempt to show that “its profits are not the natural and probable consequences of the infringement alone, but are also the result of other factors” under its own control. *Data General*, 36 F.3d at 1175. Put another way, the infringement might be a necessary cause of the profits without being a proximate cause of *all* of the profits. To the extent those other causes stem from the defendant’s own skill and effort, the defendant can profit from those without offending copyright law.

The proximate-cause track is well-trodden. In case after case, defendants have shown they were entitled to apportionment even when their products could not exist without the infringement. Take *Sheldon* itself. Absent the original play, the film could not exist; it makes no sense to imagine a film without its plot and then wonder whether audiences would have paid to watch it. The play and film were bound up together. The Supreme Court determined that some “fair apportionment” was required, “so that neither party will have what justly belongs to the other.” *Sheldon*, 309 U.S. at 408.

We explained the concept in *Bucklew v. Hawkins, Ash, Baptie & Co.*: an “infringer’s profits that are due to features of his work that do not infringe ... belong to him and not the copyright owner.” 329 F.3d 923, 932 (7th Cir. 2003). Other cases have put this theory of apportionment to good use. See, e.g., *Bruce v. Weekly World News, Inc.*, 310 F.3d 25, 26–27, 32 (1st

Cir. 2002) (splitting profits evenly between holder of copyright in “routine and generic” photo of President Clinton and artist who added “exponentially greater appeal” by adding image of an extraterrestrial shaking his hand); *Cream Records, Inc. v. Jos. Schlitz Brewing Co.*, 754 F.2d 826, 828–29 (9th Cir. 1985) (affirming award of one-tenth of one percent of defendant’s annual profit for infringing use of a “ten-note ostinato” in music for beer commercial).

In this case, the district court applied the but-for track correctly, finding that “none of Hytera’s [products] would function without Motorola’s copyrighted source code,” so that Hytera was not entitled to apportionment under this track. A93. On appeal, Hytera does not challenge the district court’s factual determinations barring apportionment under this but-for track, and there is no error in the district court’s holdings in this respect.

But the district court erred by apparently closing the “proximate-cause” track to Hytera. The court’s findings did not address Hytera’s own contributions, if any, to the value of its products. Hytera claimed in its Rule 52(b) briefing that its customers valued its flexibility with customizations; that it brought the first DMR radio with a color screen to market, as well as an “intrinsically safe” radio for use in oil drilling and other industries dependent on explosives; that it boasted a superior dealer network; and that it sells non-infringing radios for about 12 percent less cost—suggesting that not all the value of Hytera’s DMR radios comes from infringement.

In summarizing these arguments, we do not endorse them. The problem is that the district court did not engage with them. Even a willful infringer like Hytera is entitled to offer a proximate-cause theory for apportionment. *Data*

*General*, 36 F.3d at 1175–76. The district court erred in denying Hytera the opportunity to prove that theory and instead requiring Hytera to disprove but-for causation. See also *Cream Records*, 754 F.2d at 828–29 (“In cases ... where an infringer’s profits are not entirely due to the infringement, and the evidence suggests some division which may rationally be used as a springboard *it is the duty of the court to make some apportionment.*” (emphasis added) (quoting *Orgel v. Clark Boardman Co.*, 301 F.2d 119, 121 (2d Cir. 1962))).

To avoid apportionment on remand, Motorola argues that the district court’s silence on Hytera’s proximate-cause arguments was simply an implicit rejection of Hytera’s evidence, a factual decision on damages that we should review for clear error. See *Entertainment USA, Inc. v. Moorehead Communications, Inc.*, 897 F.3d 786, 792 (7th Cir. 2018). But the failure to recognize Hytera’s right to seek apportionment under the proximate-cause track would be a legal error subject to de novo review. See *Clanton v. United States*, 943 F.3d 319, 325 (7th Cir. 2019). The problem is that we cannot tell from the record whether the district court made a factual determination (that Hytera’s proximate-cause arguments and evidence failed) or a legal error (that but-for causation ended the apportionment inquiry). See *Stop Illinois Health Care Fraud, LLC v. Sayeed*, 957 F.3d 743, 751 (7th Cir. 2020) (remanding in similar situation); see also *Moze v. Jeffboat, Inc.*, 746 F.2d 365, 370, 375 (7th Cir. 1984) (vacating judgment and remanding for new trial where district court “made the necessary ultimate finding” but “failed to make the subsidiary findings necessary for us to follow its chain of reasoning”). The absence of any findings on Hytera’s proximate-cause theory “precludes effective appellate review” of the issue. *Moze*, 746 F.2d at 370. We also cannot

decide on this appeal the proper method of apportioning Motorola's domestic copyright damages. We are "a court of review," not "one of first view." *Arreola-Castillo v. United States*, 889 F.3d 378, 383 (7th Cir. 2018), quoting *Wood v. Milyard*, 566 U.S. 463, 474 (2012). The district court must reconsider apportionment under the proximate-cause standard on remand based on the evidence presented at trial and in the parties' Rule 52(b) filings.

#### IV. *The Copyright Statute of Limitations*

Before leaving copyright damages, we address one final copyright issue regarding the three-year statute of limitations for civil actions under the Copyright Act. The Copyright Act provides: "No civil action shall be maintained under the provisions of this title unless it is commenced within three years after the claim accrued." 17 U.S.C. § 507(b). Hytera argues that Motorola's copyright damages should be limited to copyright violations *committed* in the three years before the date Motorola amended its complaint to add copyright claims. Motorola responds that under the "discovery rule" adopted by this circuit, it can recover for any copyright violations *discovered* in the three years prior to adding those claims. See *Chicago Bldg. Design v. Mongolian House, Inc.*, 770 F.3d 610, 614 (7th Cir. 2014) ("Our circuit recognizes a discovery rule in copyright cases ...."); *Taylor v. Meirick*, 712 F.2d 1112, 1117–18 (7th Cir. 1983) (adopting discovery rule).

The "overwhelming majority of courts" interpreting section 507(b) have adopted a discovery rule to determine when a claim accrues under this provision. *Starz Entertainment, LLC v. MGM Domestic Television Distrib., LLC*, 39 F.4th 1236, 1242 (9th Cir. 2022), quoting 6 William F. Patry, *Patry on Copyright* § 20:19 (2013); see also *Warner Chappell Music, Inc. v. Nealy*, 601

U.S. \_\_\_, \_\_\_, 144 S. Ct. 1135, 1139 (2024) (eleven circuits apply a copyright discovery rule). The discovery rule holds that a copyright claim accrues and thus the copyright statute of limitations starts to run “when the plaintiff learns, or should as a reasonable person have learned, that the defendant was violating his rights.” *Mongolian House*, 770 F.3d at 614, quoting *Gaiman v. McFarlane*, 360 F.3d 644, 653 (7th Cir. 2004). The alternative would be an “injury rule,” under which the claims accrue “when the harm, that is, the infringement, occurs, no matter when the plaintiff learns of it.” *Nealy v. Warner Chappell Music, Inc.*, 60 F.4th 1325, 1330 (11th Cir. 2023), *affirmed*, 601 U.S. \_\_\_, 144 S. Ct. 1135 (2024).

The proper interpretation of section 507(b)’s three-year statute of limitations was the subject of a circuit split and recent Supreme Court decision in *Warner Chappell Music, Inc. v. Nealy*. In its briefs filed before that decision, Hytera had asked us to adopt the Second Circuit’s holding from *Sohm v. Scholastic Inc.* which applied the discovery rule but then imposed a three-year limit on damages entirely distinct from any rule of accrual. 959 F.3d 39, 51–52 (2d Cir. 2020). In *Nealy*, the Supreme Court abrogated *Sohm*’s reading of section 507(b), rejecting any such “judicially invented damages limit.” 601 U.S. at \_\_\_, 144 S. Ct. at 1140. We thus reject Hytera’s argument on this point.

We also decline Hytera’s alternative request that we overrule *Taylor*, 712 F.2d at 1117–18, which adopted the discovery rule. *Nealy* was careful to leave the discovery rule intact. The question presented in *Nealy* “incorporate[d] an assumption: that the discovery rule governs the timeliness of copyright claims.” 601 U.S. at \_\_\_, 144 S. Ct. at 1138–39. The defendant in *Nealy* did not challenge the application of the

discovery rule in its appeal to the Eleventh Circuit. *Id.* at \_\_\_, 144 S. Ct. at 1139. The Supreme Court has “never decided whether that assumption is valid,” and in *Nealy*, its review “exclud[ed] consideration of the discovery rule.” *Id.* *Nealy* did not overturn this circuit’s settled adoption of the discovery rule in copyright cases. See *Mongolian House*, 770 F.3d at 614. District courts throughout our circuit may continue to apply the discovery rule to copyright claims, as they routinely do. See *Design Basics LLC v. Campbellsport Bldg. Supply Inc.*, 99 F. Supp. 3d 899, 919 (E.D. Wis. 2015) (collecting cases).

Without a Supreme Court mandate to do so, we decline Hytera’s invitation to depart from our precedent and ten other circuits. Consistent with the discovery rule, Motorola is entitled to damages for all copyright violations it discovered in the three years before it added its copyright claims.

#### V. *Trade Secret Damages for Foreign Sales*

We now proceed to issues under the Defend Trade Secrets Act. The DTSA issues parallel two of the copyright issues, dealing with (1) damages for sales outside the United States and (2) apportionment of damages. Hytera also challenges (3) the punitive damages awarded under the DTSA. We address the issues in that order.

The DTSA, like the Copyright Act, is subject to the presumption against extraterritoriality. The same two-step framework from *RJR Nabisco* discussed above also governs whether the DTSA applies extraterritorially. See *RJR Nabisco, Inc. v. European Community*, 579 U.S. 325, 335–38 (2016). At the first step, courts should ask “whether the presumption against extraterritoriality has been rebutted—that is, whether the statute gives a clear, affirmative indication that it applies

extraterritorially.” *Id.* at 337. Once it is determined that the statute is extraterritorial, the scope of the statute “turns on the limits Congress has (or has not) imposed on the statute’s foreign application.” *Id.* at 337–38.

Whether the DTSA rebuts the presumption against extraterritoriality at the first step of the *RJR Nabisco* inquiry is a question of first impression for our circuit, and as far as we can tell, for any circuit.<sup>7</sup> The DTSA took effect in May 2016, amending sections of the Economic Espionage Act of 1996 (EEA), Pub. L. No. 104-294, § 101, 110 Stat. 3488. The EEA had added chapter 90 to title 18 of the United States Code, making the theft of trade secrets a federal crime in many situations. § 101, 110 Stat. 3488. Section 1837 of chapter 90, entitled “Applicability to conduct outside the United States,” provides: “This chapter also applies to conduct occurring outside the United States if ... an act in furtherance of the offense was committed in the United States.” § 101, 110 Stat. at 3490.

Two decades later, the DTSA amended chapter 90. It created a private right of action, 18 U.S.C. § 1836(b), and added a definition of “misappropriation,” 18 U.S.C. § 1839(5), mirroring the definition in the Uniform Trade Secrets Act. See Defend Trade Secrets Act of 2016, Pub. L. 114-153, § 2(a) & (b)(3), 130 Stat. 376, 376, 380–81 (2016). The DTSA made no changes to section 1837.

During trial, Hytera objected to any award of damages under the DTSA for sales outside the United States. In a careful

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<sup>7</sup> The First Circuit has said in *dicta* that “Congress was concerned with the theft of American trade secrets abroad and intended the DTSA to have extraterritorial reach.” *Amyndas Pharmaceuticals, S.A. v. Zealand Pharma A/S*, 48 F.4th 18, 35 (1st Cir. 2022). We agree.

opinion that parsed the DTSA and the EEA, the district court held that the DTSA rebutted the presumption against extraterritoriality and allowed damages for Hytera's foreign sales. *Motorola Solutions, Inc. v. Hytera Communications Corp. Ltd.*, 436 F. Supp. 3d 1150 (N.D. Ill. 2020). The court explained that "the clear indication of Congress in amend[ing] Chapter 90 of Title 18 of the U.S. Code was to extend the extraterritorial provisions of Section 1837 to Section 1836, meaning Section 1836 may have extraterritorial reach subject to the restrictions in Section 1837." *Id.* at 1162. That is, the district court found that the DTSA rebutted the presumption against extraterritoriality at step one of the *RJR Nabisco* test. See *id.* at 1163. The court further found that Hytera's misappropriation fell within the limits on extraterritorial reach set by section 1837, so Motorola was entitled to recover all of Hytera's foreign profits from the misappropriation. *Id.* at 1163–66. In the alternative, the district court held that even if the DTSA does not apply extraterritorially, the facts of this case constituted a permissible domestic application of the statute under *RJR Nabisco's* step two, and Motorola could still recover Hytera's profits from foreign sales on those grounds. *Id.* at 1166–67.

We agree with the district court, and we rely on its reasoning that section 1836 has extraterritorial reach subject to the restrictions in section 1837 under *RJR Nabisco's* first step. We summarize the key points of statutory interpretation that led the district court to conclude the DTSA rebuts the presumption against extraterritoriality. We then address Hytera's counterarguments.<sup>8</sup>

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<sup>8</sup> At least three district courts outside this circuit have also cited with approval Judge Norgle's reasoning on the DTSA's extraterritoriality. *Syntel Sterling Best Shores Mauritius Ltd. v. TriZetto Grp., Inc.*, No. 15-cv-

A. *The DTSA Applies Extraterritorially in This Case*

The district court began by explaining the history of the DTSA as a 2016 amendment to chapter 90 of title 18, a chapter of the U.S. Code that had been created to codify the EEA in 1996. *Motorola*, 436 F. Supp. 3d at 1157. Because “Congress was not acting to change an existing interpretation of the EEA, but rather was creating a private right of action in the statutory chapter,” the district court concluded that “the chapter amended through the DTSA should be read as a cohesive whole.” *Id.* at 1158. The district court was correct that the relevant statutory text is all of chapter 90.

The district court applied the “traditional tools of statutory interpretation” under *RJR Nabisco*’s step one to determine whether the statutory text of chapter 90 clearly rebuts the presumption against extraterritoriality. *Id.* at 1156. On “this first step of the extraterritorial analysis, *RJR Nabisco* cautions that “[t]he question is not whether we think Congress would have wanted a statute to apply to foreign conduct if it had thought of the situation before the court, but whether Congress has affirmatively and unmistakably instructed that the statute will do so.” *Id.* at 1155–56 (alteration in original), quoting *RJR Nabisco*, 579 U.S. at 335. An express statement of extraterritorial application is the clearest instruction Congress could give. Here, however, neither the private right of action in 18 U.S.C. § 1836(b) nor the definition of “misappropriation”

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211-LGS, 2021 WL 1553926, at \*14 (S.D.N.Y. Apr. 20, 2021), *aff’d* in part and vacated in part on other grounds, 68 F.4th 792 (2d Cir. 2023); *Aldini AG v. Silvaco, Inc.*, No. 21-cv-06423-JST, 2022 WL 20016826, at \*14 (N.D. Cal. Aug. 3, 2022); *Herrmann Int’l, Inc. v. Herrmann Int’l Europe*, No. 17-cv-00073-MR, 2021 WL 861712, at \*16 (W.D.N.C. Mar. 8, 2021).

added by the DTSA in section 1839(5) includes express references to extraterritorial conduct.

The district court correctly looked to the rest of chapter 90 for guidance, including the express extraterritoriality provision in section 1837. *Motorola*, 436 F. Supp. 3d at 1159. Section 1837 has been part of chapter 90 since the EEA's passage in 1996 with the title "Applicability to conduct outside the United States." See § 101, 110 Stat. at 3490. It says in relevant part: "This chapter also applies to conduct occurring outside the United States if ... an act in furtherance of the offense was committed in the United States." 18 U.S.C. § 1837(2). The district court wrote that section 1837 expressly rebutted the presumption against extraterritoriality, but that a question remained as to whether, as Hytera argues, "Section 1837 limits that rebuttal only to criminal matters." *Motorola*, 436 F. Supp. 3d at 1159.

To resolve this question, the district court applied the usual tools of statutory interpretation. Section 1837 says that its provisions governing extraterritoriality apply to "This chapter," meaning all of chapter 90. "From this language, which Congress did not amend when it amended the chapter," the district court drew the inference "that Congress intended Section 1837 to apply to Section 1836." *Motorola*, 436 F. Supp. 3d at 1159. That is the most straightforward reading of the statutory text.

The district court buttressed this inference with other references to extraterritorial conduct in the DTSA, including the "notes that Congress included in the piece of legislation passed as the DTSA." *Id.* at 1159–60. "It is a mistake to allow general language of a preamble to *create* an ambiguity in specific statutory or treaty text where none exists." *Jogi v.*

*Voges*, 480 F.3d 822, 834 (7th Cir. 2007) (emphasis added). At the same time, “[w]e cannot interpret federal statutes to negate their own stated purposes.” *King v. Burwell*, 576 U.S. 473, 493 (2015), quoting *New York State Dep’t of Social Servs. v. Dublino*, 413 U.S. 405, 419–20 (1973). After courts have applied the traditional tools of statutory construction to arrive at what appears to be the best reading of a statute, they may consider express textual evidence of congressional purpose elsewhere in the statute to double-check their work, while keeping in mind that “no legislation pursues its purposes at all costs.” E.g., *Rodriguez v. United States*, 480 U.S. 522, 525–26 (1987). When Congress has enacted its findings and purposes in the statutory text, a judicial “allergy to the word ‘purpose’ is strange.” *Harrington v. Purdue Pharma L.P.*, 603 U.S. \_\_\_, \_\_\_, 2024 WL 3187799, at \*31 n.6 (June 27, 2024) (Kavanaugh, J., dissenting). “After all, ‘words are given their meaning by context, and context includes the purpose of the text. The difference between textualist interpretation’ and ‘purposive interpretation is not that the former never considers purpose. It almost always does,’ but ‘the purpose must be derived from the text.’” *Id.*, quoting A. Scalia & B. Garner, *Reading Law* 56 (2012); accord, William N. Eskridge, *Interpreting Law: A Primer on How to Read Statutes and the Constitution* 105–06 (2016) (“[P]urpose clauses are enacted into law as part of the statute and ... they provide authoritative context for reading the entire statute.”); Abbe R. Gluck, *Comment: Imperfect Statutes, Imperfect Courts: Understanding Congress’s Plan in the Era of Unorthodox Lawmaking*, 129 Harv. L. Rev. 62, 91 (2015) (“Textualists have suggested for years that such enacted statements of purpose would obviate the dangers posed by legislative history,” collecting sources). Congressionally enacted legislative purposes and findings are part of a

statute's text, and thus are one "permissible indicator of meaning" for courts. Scalia & Garner, *Reading Law* 63.

In the DTSA, Congress enacted its purposes in the statutory text itself. The DTSA's legislative purposes and findings expressed "the sense of Congress that ... trade secret theft occurs in the United States and around the world; ... trade secret theft, wherever it occurs, harms the companies that own the trade secrets and the employees of the companies; ... [and] chapter 90 ... applies broadly to protect trade secrets from theft." DTSA § 5, 130 Stat. at 383–84. The DTSA also added new reporting requirements for the Attorney General that had been absent in the original EEA. *Motorola*, 436 F. Supp. 3d at 1160. Those required reports cover the "scope and breadth of the theft of the trade secrets of United States companies occurring outside of the United States," the "threat posed" by those thefts, and the "ability and limitations of trade secret owners to prevent the misappropriation of trade secrets outside of the United States, to enforce any judgment against foreign entities for theft of trade secrets, and to prevent imports based on theft of trade secrets overseas." *Id.*, quoting DTSA § 4(b), 130 Stat. at 383. The district court correctly concluded: "Taken together, it is clear that Congress was concerned with actions taking place outside of the United States in relation to the misappropriation of U.S. trade secrets when it passed the DTSA." *Motorola*, 436 F. Supp. 3d at 1160.

The court paused to distinguish *RJR Nabisco*, which had held that limiting language in the Racketeer Influenced and Corrupt Organizations Act as to the types of damages available for civil claims limited the extraterritorial reach of RICO's private right of action as compared to its criminal provisions. *Id.* The district court found no such limiting language in the

DTSA's private right of action in section 1836(b), which defined the remedies more broadly than RICO's private right of action. *Id.*

The district court then rejected Hytera's alternative argument that section 1837(2)'s use of the word "offense" limits its extraterritorial reach to criminal cases. The court explained that "offense" could reach both criminal and civil violations, so that the extraterritorial provisions of section 1837 apply to civil claims under section 1836(b). *Id.* at 1160–62.

We agree with the district court's careful interpretation of the text of chapter 90, including the private right of action in section 1836(b), the extraterritoriality provisions in section 1837(2), and the definition of "misappropriation" in section 1839(5). We also agree that other sections of the DTSA confirm that Congress was especially concerned with foreign misappropriation of U.S. trade secrets. See DTSA, § 5, 130 Stat. at 383–84.

Because the DTSA rebuts the presumption against extraterritoriality, the only limits on its reach are "the limits Congress has ... imposed on the statute's foreign application" in section 1837(2). See *RJR Nabisco*, 579 U.S. at 337–38. Section 1837(2) is satisfied if "an act in furtherance of the offense was committed in the United States." As the district court wrote: "The offense, in the context of the DTSA private cause of action, is the misappropriation of a trade secret." *Motorola*, 436 F. Supp. 3d at 1163.

Hytera argued in the district court and on appeal that even if section 1837(2) does encompass civil violations, section 1837(2) is not satisfied here because there was no domestic "'act in furtherance' of the purely extraterritorial sales whose

profits the district court awarded to Motorola.” Hytera Br. at 60. The district court found, however, that Motorola had “presented evidence sufficient to support a finding that an act in furtherance of the offense has been committed in the United States.” *Motorola*, 436 F. Supp. 3d. at 1163. We agree with the district court.

The DTSA defines “misappropriation” as “acquisition of a trade secret” by “improper means,” or “disclosure or use of a trade secret” by an unauthorized person meeting certain other conditions. 18 U.S.C. § 1839(5)(A)–(B); accord, *Motorola*, 436 F. Supp. 3d at 1163 (“[M]isappropriation can occur through any of three actions: (1) acquisition, (2) disclosure, or (3) use.”). The DTSA does not further define “use,” but we agree with the district court. “Use” is “any exploitation of the trade secret that is likely to result in injury to the trade secret owner or enrichment to the defendant,” including “marketing goods that embody the trade secret, employing the trade secret in manufacturing or production, relying on the trade secret to assist or accelerate research or development, or soliciting customers through the use of information that is a trade secret.” *Motorola*, 436 F. Supp. 3d at 1164, quoting Restatement (Third) of Unfair Competition, § 40, cmt. c (Am. L. Inst. 1995). The district court found that “use” of the alleged trade secrets had occurred in the United States because Hytera had advertised, promoted, and marketed products embodying the stolen trade secrets at numerous trade shows in the United States. *Id.* at 1165.

We agree that Hytera’s marketing of products embodying Motorola’s stolen trade secrets constituted domestic “use” of those trade secrets, amounting to completed acts of domestic “misappropriation” under 18 U.S.C. § 1839(5)(B). Hytera’s

completed domestic acts of misappropriation are sufficient to satisfy section 1837(2). We affirm the district court's holding that Hytera committed an act in furtherance of misappropriation of Motorola's trade secrets in the United States. *Id.* at 1166. The district court did not err by awarding Motorola relief based on Hytera's worldwide sales of products furthered by that misappropriation, regardless of where in the world the remainder of Hytera's illegal conduct occurred.

B. *Hytera's Counterarguments*

Hytera makes several arguments to oppose application of the DTSA to its sales outside the United States. First, Hytera argues that the district court erred by considering 18 U.S.C. § 1837 in its extraterritoriality analysis. That provision was not added to chapter 90 as part of the DTSA but was adopted earlier in 1996 as part of the EEA, a different statute. Hytera cites *RJR Nabisco* for its argument that courts assessing the extraterritoriality of a remedy must determine "whether the *statute* gives a clear, affirmative indication that it applies extraterritorially." Hytera Br. at 54 (emphasis by Hytera), quoting 579 U.S. at 337. Hytera takes this to mean that courts must "look at the statute adopting the remedy, not to another statute codified in a neighboring provision." *Id.* at 55.

This argument asks courts to disregard the plain text of the DTSA and the EEA and misreads *RJR Nabisco*, which determined the extraterritoriality of RICO's criminal provisions by considering a variety of other criminal statutes used as predicate offenses for RICO. 579 U.S. at 338–39. Section 1837 applies by its terms to all of chapter 90, including section 1836. Hytera's suggestion that we treat section 1837 as meaning something other than what it says faces a steep uphill climb, and further statutory context makes the climb

impossible. See *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247, 265 (2010) (“Assuredly context can be consulted as well.”). We have already mentioned the DTSA’s legislative purposes section stating Congress’s concerns about foreign theft of trade secrets. In addition, Congress wrote the DTSA in such a way that it must be interpreted in the larger context of chapter 90. See DTSA § 5(3), 130 Stat. at 383–84; see also 130 Stat. at 376 (DTSA formally titled “An Act [t]o amend chapter 90 of title 18 ... to provide Federal jurisdiction for the theft of trade secrets, and for other purposes.”). The DTSA’s detailed line-editing of chapter 90 indicates that Congress carefully relied on the existing provisions of the EEA and wrote the DTSA so that the provisions of both acts would mesh smoothly. For example, to the EEA’s list of exceptions from criminal liability, the DTSA added that chapter 90 also would not “create a private right of action” for the same exceptions. DTSA § 2(c), 130 Stat. at 381. Congress made detailed changes to other sections of chapter 90 but not to section 1837. We treat that choice as intentional, not an oversight, and we apply the plain meaning of section 1837. See *Gross v. FBL Financial Services, Inc.*, 557 U.S. 167, 174 (2009). The extraterritorial provisions of section 1837 extend to the private right of action in section 1836(b).

Hytera also renews its argument that the term “offense” in section 1837(2) reaches only criminal trade secret thefts. First, Hytera argues that because the EEA provided only criminal jurisdiction over trade secret thefts, Congress must have meant the term “offense” in section 1837 to refer only to criminal violations. Second, Hytera argues that interpreting “offense” to cover civil violations runs contrary to the Supreme Court’s earlier statement that, “while the term ‘offense’ is sometimes used” to denote civil violations, “that is not how

the word is used in Title 18.” *Kellogg Brown & Root Services, Inc. v. United States ex rel. Carter*, 575 U.S. 650, 659 (2015). Neither argument is persuasive.

Hytera’s first argument would have been persuasive before passage of the DTSA in 2016. The EEA extended federal jurisdiction only over criminal violations, so “offense” in section 1837 could have referred initially only to criminal violations.<sup>9</sup> But as the district court noted, “the fact that Congress has amended a statute sheds light on how the statute is to be interpreted.” *Motorola*, 436 F. Supp. 3d at 1157, citing *Gross*, 557 U.S. at 174. The district court reiterated that “Congress also did not amend the introductory language of Section 1837, which states that Section 1837 applies to ‘this chapter’—a chapter which now includes Section 1836’s private cause of action.” *Id.* We agree that Congress’s decision to leave the introductory language in section 1837 unchanged, such that it continues to cover all of chapter 90, is more persuasive textual evidence than Hytera’s assertion that the Congress believed the term “offense” could not encompass civil violations.

Second, Hytera also relies on language from *Kellogg Brown* that, “while the term ‘offense’ is sometimes used” to denote civil violations, “that is not how the word is used in Title 18.” 575 U.S. at 659. The argument gets the Supreme Court’s reasoning in *Kellogg Brown* exactly backwards. The Court recognized that “the term ‘offense’ is sometimes used ... to denote a civil violation.” *Id.* The Court’s statement that the term was not used that way in title 18 was a description of title 18 in

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<sup>9</sup> As enacted in 1996, the EEA contained a limited a civil remedy, codified in 18 U.S.C. § 1836(a), authorizing only the Attorney General to seek injunctions against criminal violations of the EEA.

2015, not a sweeping command that the word may never be used in title 18 to refer to a civil violation. *Id.* (“Although the term appears hundreds of times in Title 18, neither respondent nor the Solicitor General, appearing as an *amicus* in support of respondent, has been able to find a single provision of that title in which ‘offense’ is employed to denote a civil violation.”).

*Kellogg Brown* was decided a year before the DTSA was enacted. To the extent the DTSA’s drafters considered the Supreme Court’s guidance on whether it was necessary to modify the term “offense,” *Kellogg Brown* would have reassured them that “offense” could in fact encompass civil violations. If *Kellogg Brown* had been handed down after the DTSA amended title 18, Hytera’s argument might be stronger. But because the DTSA was enacted after *Kellogg Brown*, section 1837’s use of the term “offense” to encompass section 1836’s civil violations would have provided the “single provision of that title” the Supreme Court looked for but did not find in *Kellogg Brown*. *Id.*

Hytera also argues briefly that it would be anomalous for the DTSA’s private right of action to have extraterritorial reach when other intellectual property statutes, such as the Copyright Act, do not. We see nothing necessarily anomalous about making different policy choices for different statutes. The issue for us is statutory interpretation, not the public policy choices. The DTSA’s text expressly applies outside the United States and distinguishes it from other intellectual property laws. See DTSA § 2(g), 130 Stat. at 382, to be set out as a note under 18 U.S.C. § 1833 (“[T]he amendments made by this section shall not be construed to be a law pertaining to intellectual property for purposes of any other Act of

Congress.”). We agree with the district court that the express extraterritoriality provisions of section 1837 apply to the DTSA’s private right of action in section 1836(b). Motorola may recover damages for Hytera’s “conduct occurring outside the United States,” including its foreign sales of products containing the stolen trade secrets.

C. *Domestic “Act in Furtherance”*

Hytera also argues on appeal that the district court erred in holding that it had committed a domestic act in furtherance of its foreign misappropriation. Hytera asserts in a single sentence that its “participation [in] U.S. trade shows certainly was not an ‘act in furtherance’ of ... purely extraterritorial sales,” pointing to arguments earlier in its brief about Motorola’s trade-show theory of extraterritoriality under the Copyright Act. Hytera Br. at 60. Hytera’s argument seeks to import the completed-act and causation requirements from copyright law’s predicate-act doctrine into section 1837(2). For reasons we have explained, though, the extraterritorial reach of the DTSA is far broader than that of the Copyright Act. Section 1837(2)’s requirement of “an act in furtherance of” the misappropriation does not require a *completed* act of domestic misappropriation, nor does it impose a specific causation requirement.

Instead, as at least one other court has recognized, the “act in furtherance of” language in section 1837(2) “is regularly used in the area of federal conspiracy law.” *Motorola*, 436 F. Supp. 3d at 1165, quoting *Luminati Networks Ltd. v. BIScience Inc.*, No. 2:18-cv-00483-JRG, 2019 WL 2084426, at \*9 (E.D. Tex. May 13, 2019), citing in turn *Yates v. United States*, 354 U.S. 298, 334 (1957) (“[T]he *overt act* must be found ...to have been *in furtherance of a conspiracy* ....”) (emphasis added); see also

*Findlay v. McAllister*, 113 U.S. 104, 114 (1885) (“[I]t must be shown not only that there was a conspiracy, but that there were tortious *acts in furtherance of it* ....”) (emphasis added). “[W]here Congress borrows terms of art in which are accumulated the legal tradition and meaning of centuries of practice, it presumably knows and adopts ... the meaning its use will convey to the judicial mind unless otherwise instructed.” *Morissette v. United States*, 342 U.S. 246, 263 (1952). We thus consider the established legal meaning of “an act in furtherance of” when interpreting section 1837(2).

These origins in the law of conspiracy make clear that, unlike copyright’s predicate-act doctrine for extraterritorial application, section 1837(2) does not require a *completed* act of domestic misappropriation, nor does it impose a causation requirement. The Copyright Act does not apply extraterritorially, so to recover damages for foreign copyright infringement under *RJR Nabisco’s* step two, a plaintiff is required to show specific causation. See *Tire Engineering & Distrib., LLC v. Shandong Linglong Rubber Co.*, 682 F.3d 292, 308 (4th Cir. 2012) (“[P]laintiff is required to show a domestic violation of the Copyright Act and damages *flowing from foreign exploitation of that infringing act* to successfully invoke the predicate-act doctrine.”) (emphasis added). Conversely, there is a causation requirement in the DTSA between misappropriation and the resulting damages, but it is imposed in the cause of action itself, not by section 1837’s extraterritoriality provisions. See § 1836(b)(3)(B)(i) (authorizing award of damages and unjust enrichment “caused by the misappropriation.”). We therefore reject the proposition that section 1837(2)’s “in furtherance of” language requires specific causation between the qualifying domestic act and particular foreign sales for which damages are sought.

Nor does the “act in furtherance of” language require a *completed* act of domestic misappropriation. To further a criminal conspiracy, an overt act, “taken by itself,” need not “be criminal in character.” *Yates*, 354 U.S. at 334. By the same reasoning, an act in furtherance of a civil misappropriation need not itself be a complete violation of the law:

Applied to the DTSA, *Yates* makes clear that the act in furtherance of the offense of trade secret misappropriation need not be the offense itself or any element of the offense, but it must “manifest that the [offense] is at work” and is not simply “a project [...] in the minds of the” offenders or a “fully completed operation.” Put another way, an act that occurs before the operation is underway or after it is fully completed is not an act “in furtherance of” the offense.

*Luminati*, 2019 WL 2084426, at \*10, quoting *Yates*, 354 U.S. at 334.

We agree with this analysis. We also agree with Judge Norgle’s conclusion that under the DTSA, misappropriation does not begin and end with the defendant’s initial acquisition of plaintiff’s trade secrets. Rather, “misappropriation” includes the defendant’s illicit and ongoing “disclosure or use” of the stolen secrets. 18 U.S.C. § 1839(5)(B). Section 1837(2) is satisfied if “an act in furtherance of” a disclosure or use of a stolen trade secret occurred in the United States. Once that condition is met, the private right of action in section 1836(b) “also applies to conduct occurring outside the United States” for any foreign conduct related to “the offense.” 18 U.S.C. § 1837. Just as a single criminal conspiracy can encompass a large number of independently unlawful acts within its scope, so too can an

“offense” in section 1837(2) encompass an entire “operation” comprising many individual acts of misappropriation. See *Yates*, 354 U.S. at 334. So long as “an act in furtherance of the offense was committed in the United States,” 18 U.S.C. § 1837(2), then all damages caused by the offense are recoverable under sections 1836(b) and 1837(2), wherever in the world the rest of the underlying conduct occurred.

We have already agreed with the district court’s finding that Hytera’s use of Motorola’s trade secrets at U.S. trade shows was not just a domestic “act in furtherance of” misappropriation but was itself a complete domestic act of misappropriation. *Motorola*, 436 F. Supp. 3d. at 1165. Hytera thus committed an “act in furtherance of” its worldwide “offense” within the United States, and thus satisfied “the limits Congress has ... imposed on the statute’s foreign application” in section 1837(2). See *RJR Nabisco*, 579 U.S. at 337–38. We reject Hytera’s arguments to the contrary. The district court properly awarded Hytera’s profits on all worldwide sales of products caused by the offense, regardless of where in the world the remainder of Hytera’s illegal conduct occurred. In this case, Hytera’s “offense” encompassed all misappropriations arising from the initial unlawful acquisitions by the former Motorola employees. Thus, under the DTSA’s private right of action in 18 U.S.C. § 1836(b), Motorola can recover damages for all foreign sales involving the trade secrets acquired by theft.

We conclude on extraterritoriality with two further issues. First, we agree with the district court’s alternative finding that, even if the DTSA did not apply extraterritorially under *RJR Nabisco*’s step one, this case would still amount to a permissible domestic application of the DTSA under *RJR*

*Nabisco's* step two. See 579 U.S. at 337. Second, because Motorola can recover all of Hytera's global profits caused by its illicit acquisition and use of Motorola's trade secrets, regardless of where the misappropriations occurred, any recovery under the Illinois Trade Secrets Act would duplicate recovery to Motorola for the same injuries from the loss of its trade secrets. Because additional damages would not be available under the ITSA, we need not address the district court's holding that the ITSA does not apply extraterritorially. See *Motorola*, 436 F. Supp. 3d at 1170.

#### VI. *DTSA Apportionment and Harmless Error*

Hytera raises the same arguments with respect to apportionment of the DTSA compensatory damages that it raised on copyright damages. The DTSA's compensatory damages scheme closely parallels the language of the Copyright Act discussed above. The Copyright Act allows recovery for "actual damages ... and any profits of the infringer that are ... not taken into account in computing the actual damages." 17 U.S.C. § 504(b). The DTSA allows recovery of "damages for actual loss ... and ... for any unjust enrichment ... that is not addressed in computing damages for actual loss ...." 18 U.S.C. § 1836(b)(3)(B)(i).

Federal courts routinely apply their reasoning about apportionment to unjust enrichment awards under a variety of statutes. See *Sheldon v. Metro-Goldwyn Pictures Corp.*, 309 U.S. 390, 401 (1940) (extending apportionment causation doctrine from patent law to copyright infringement). Applying a different federal statute, this court has noted:

The problem of apportioning a wrongdoer's profits between those produced by his or her

own legitimate efforts and those arguably resulting from his or her wrong is familiar to courts in other areas of the law. Where [a federal statute] is silent as to how profits should be apportioned, we draw on those other areas of law for guidance. Perhaps the closest analogy is the apportionment of a copyright infringer's profits.

*Leigh v. Engle*, 727 F.2d 113, 138 (7th Cir. 1984) (extending copyright and patent apportionment reasoning to profitable investments made through breaches of fiduciary duties under ERISA). Here, we apply the case law regarding proof of causation for apportionment of awards under the Copyright Act to the DTSA. As with copyright damages, the district court also erred in closing off to Hytera the proximate-cause track to support possible apportionment of DTSA damages.

But this does not end our inquiry. Motorola argues that failure to apportion the DTSA compensatory damages award was harmless. Its theory is that 18 U.S.C. § 1836(b)(3)(B) offers an alternative calculation of compensatory damages under the DTSA. This alternative calculation would add Motorola's own lost profits (\$86.2 million, as found by the district judge) to Hytera's avoided R&D costs (\$73.6 million, as also found by district judge), for a total of \$159.8 million. Neither of those amounts is subject to apportionment, so Motorola would be entitled to the entire \$159.8 million under this calculation. This amount is greater than the amount of Hytera's profits actually awarded by the district court as unjust enrichment, \$135.8 million, which was potentially subject to apportionment. Motorola does not seek the \$24 million difference in its cross-appeal, but it argues that the availability of a \$159.8

million compensatory damages award makes the district court's failure to apportion the \$135.8 million award a harmless error.

Hytera counters with two arguments: first, that the district court did not actually make a factual finding on Motorola's amount of lost profits, and second, that even if the court made such a factual finding, the amount of Motorola's lost profits is a legal (not equitable) remedy on which Hytera is entitled to a jury finding in the first instance. Neither argument is persuasive. The first is clearly incorrect on the record. The second is a true statement of the law—lost profits are a legal remedy rather than an equitable one—but Hytera forfeited the argument that it was entitled to a jury trial on that issue by failing to raise it in its opening brief.

We thus find that the district court's failure to apportion the \$135.8 million in compensatory damages under the DTSA was a harmless error. We first explain why Motorola's alternate calculation of compensatory damages is valid under the DTSA. We then explain why Hytera forfeited its arguments that the jury needed to make any finding on the issue.

*A. Compensatory Damages Under the DTSA*

The DTSA offers a trade secret plaintiff the greatest of three distinct calculations for compensatory damages in 18 U.S.C. § 1836(b)(3)(B). Under the DTSA, Motorola is entitled to "(I) damages for actual loss caused by the misappropriation of the trade secret; and (II) damages for any unjust enrichment caused by the misappropriation of the trade secret that is not addressed in computing damages for actual loss," § 1836(b)(3)(B)(i), or "in lieu of damages measured by any other methods, [the district court may award] damages

caused by the misappropriation measured by imposition of liability for a reasonable royalty for the misappropriator's unauthorized disclosure or use of the trade secret," § 1836(b)(3)(B)(ii). See *MedImpact Healthcare Systems, Inc. v. IQVIA Holdings Inc.*, No. 19-cv-1865-GPC (DEB), 2022 WL 5460971, at \*4 (S.D. Cal. Oct. 7, 2022) (describing DTSA's "three separate measures of damages"). The third method for calculating damages, ascertaining the value of a reasonable royalty, is not at issue here. We do not discuss it further.

The statutory language for the DTSA's first two methods of calculating damages parallels the Copyright Act. See 17 U.S.C. § 504(b). A plaintiff's first option is to recover as unjust enrichment the entire amount of the defendant's profits caused by the misappropriation. On this path, once the plaintiff proves the defendant's total profits from the theft, the defendant has an opportunity to seek apportionment by proving how its own efforts contributed to those profits. See *id.* A plaintiff's second option is to prove as damages its actual losses (a legal remedy) plus any gains to the defendant not accounted for in plaintiff's actual losses as unjust enrichment (an equitable remedy). If a plaintiff follows this path and tries to prove its own losses, it must also show that the additional amount of unjust enrichment it seeks from defendant will not duplicate its own lost profits. In this case, for example, it would be double-counting for Motorola to count the same unit of sale as both lost profits to itself and unjust enrichment to Hytera. We explained this principle under the Copyright Act in *Taylor v. Meirick*:

Taylor presented no evidence that selling the infringing maps was more profitable to Meirick than selling more of the original maps would

have been to himself. *True, he would not have had to present such evidence if he were seeking to recover Meirick's profits as the sole item of damages, as the statute permitted him to do.* But since he was trying to recover both his lost profits and Meirick's profits, he had to show what part of Meirick's profits he, Taylor, would *not* have earned had the infringement not occurred; in other words, he had to subtract his profits from Meirick's.

712 F.2d 1112, 1120 (7th Cir. 1983) (first emphasis added).

A successful plaintiff is entitled to the larger of these two amounts. *Id.* (characterizing the paths as a choice for plaintiff, but "an easy choice" where one amount is larger than the other). Judge Shadur made the same point in *Respect Inc. v. Committee on Status of Women*, also interpreting the Copyright Act:

[T]he ... plain meaning of [Section 504(b)] is that the copyright owner is entitled to the *greater* of (1) its own actual damages and (2) the infringer's profits. Indeed the enactment was a corrective measure to overturn the line of some prior case law authority that had granted copyright owners the *sum* of their actual damages plus the infringer's profits.

821 F. Supp. 531, 532 (N.D. Ill. 1993) (emphases in original). The bottom line is that Motorola is entitled to the larger of (1) Hytera's total profits from the theft, as unjust enrichment (subject to apportionment), or (2) the sum of Motorola's own actual losses and any additional amount of unjust enrichment

not accounted for in those actual losses, which in this case includes Hytera's avoided R&D costs.<sup>10</sup>

Crucially for this case, a plaintiff is entitled to factual determinations as to the amounts available under both paths for calculating its compensatory damages. "There is of course only one way to determine which of two numbers is larger, and that is to ascertain *both* of those numbers." *Respect Inc.*, 821 F. Supp. at 532 (emphasis in original); accord, *Navarro v. Procter & Gamble Co.*, 529 F. Supp. 3d 742, 749 (S.D. Ohio 2021) ("While [the Copyright] Act did not expressly tell courts to take actual damages into account in ascertaining the profits award, that is inherent in the statutory scheme."). If a plaintiff adequately preserves its arguments for compensatory damages under both theories through the close of trial and any relevant post-trial motions, as Motorola did here, the factfinder is obliged to make findings as to the amount of compensatory damages available by each path. Plaintiff should then be awarded the greater of the two amounts.

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<sup>10</sup> We agree with the Second Circuit that "avoided costs are recoverable as damages for unjust enrichment under the DTSA" when the defendant's "misappropriation injure[s plaintiff] *beyond* its actual loss." *Syntel Sterling Best Shores Mauritius Ltd. v. The TriZetto Grp., Inc.*, 68 F.4th 792, 809–10 (2d Cir. 2023) (emphasis in original). Hytera's avoided R&D costs are recoverable as unjust enrichment in this case because its misappropriation injured Motorola beyond its actual losses. Hytera "'used the claimant's trade secrets in developing its own product,' thereby diminishing the value of the trade secret to the claimant." *Id.* at 812, quoting *GlobeRanger Corp. v. Software AG U.S. of America, Inc.*, 836 F.3d 477, 499 (5th Cir. 2016) (alteration omitted).

B. *Key Procedural Steps and Missteps*

The path to the final judgment on this issue included some missteps and course corrections during and after trial. First, Motorola (and Hytera) believed throughout trial that Motorola's unjust-enrichment theory would likely produce a higher verdict than its lost-profits theory. Still, Motorola always preserved its right to receive the higher of the two sums. The jury was also instructed to calculate both numbers and to award the higher.<sup>11</sup>

Second, the district court submitted all damages issues to the jury under the mistaken impression that all awards would be legal remedies rather than equitable. After the trial, Hytera convinced Judge Norgle that he had been wrong. He then treated the jury verdict as advisory. The jury's verdict form included only one total for compensatory damages and one total for exemplary damages. After trial, however, the evidence and arguments allowed Judge Norgle to break down the separate amounts awarded by the jury for copyright and trade secret damages.

Third, in post-trial briefing and proposed findings and conclusions, Motorola asked Judge Norgle to find two facts specifically: (1) that Motorola's lost profits under the DTSA

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<sup>11</sup> Motorola's expert, its counsel, and the district judge proceeded through trial under the misapprehension (eventually corrected by the district judge) that the amount of Hytera's avoided R&D costs (\$73.6 million) could be added to Hytera's profits (ultimately argued by Motorola to be \$135.8 million) without causing a double recovery. Motorola persisted in this mistaken argument, seeking \$209.4 million in unjust enrichment from Hytera, until Judge Norgle's post-trial findings of fact and conclusions of law corrected the mistake and reduced the unjust enrichment award to \$135.8 million.

were \$86.2 million, and (2) that Hytera's avoided R&D costs were \$73.6 million. Hytera objected to both numbers on their merits. It also objected to having the district court make the initial finding on lost profits, arguing that lost profits were a legal remedy requiring a jury determination in the first instance.

After receiving the parties' proposed findings of fact and law, Judge Norgle adopted both of Motorola's proposed findings on the amounts of its lost profits and Hytera's avoided R&D expenses. Hytera mistakenly argues on appeal that the district court made no express finding as to the amount of Motorola's lost profits. See Dkt. No. 1100, ¶ 10 ("The \$209.4 million [awarded by the jury for Hytera's unjust enrichment] exceeds *Motorola's \$86.2 million in Motorola's lost profits* due to Hytera's trade secret misappropriation under the DTSA.") (emphasis added); *id.* ¶ 46 ("[T]he Court finds that the evidence supports \$73.6 million for Hytera's avoided research and development costs for Hytera's trade secret misappropriation under the DTSA.") (emphasis added). The court made these express findings in the course of figuring out which of the two compensatory damages paths produced the greater number. The court did not expressly address Hytera's argument that the jury would have had to make any finding about Motorola's lost profits, but it incorporated by reference the reasoning in its earlier post-trial order that "the jury award for actual losses pursuant to the DTSA is ... a legal remedy." *Motorola Solutions, Inc. v. Hytera Communications Corp.*, 495 F. Supp. 3d 687, 708 (N.D. Ill. 2020). The problem with this answer is that the jury verdict did not include any explicit finding on the amount of Motorola's actual losses.

Fourth, the district court's post-trial decisions and findings should have brought the present harmless-error and jury-versus-judge problems into focus for the parties. The district court correctly found that the avoided R&D costs should be subtracted from Hytera's profits to avoid double-counting. That lowered the potential unjust-enrichment award from \$209.4 million to \$135.8 million, which put that amount now below the sum of Motorola's own lost profits and Hytera's avoided R&D costs (\$159.8 million). The district court also made an express finding on the amount of Motorola's lost profits, (\$86.2 million) while incorporating by reference its own earlier reasoning that the amount of that award was a legal (not equitable) remedy. And after saying (incorrectly) that the maximum compensatory damages recoverable by Motorola under the DTSA were Hytera's unjust enrichment profits of \$135.8 million, the court failed to show it applied the right causation standard to Hytera's contributions to its profits.

If the district court had properly followed DTSA's statutory remedial scheme, the court should have awarded Motorola the sum of its own lost profits and Hytera's avoided R&D for a total of \$159.8 million (not subject to apportionment) as soon as it became clear that this total was greater than the amount of Hytera's profits recoverable through unjust enrichment, \$135.8 million (still subject to reduction by apportionment). Motorola has not cross-appealed, however, on the \$24 million difference between that amount and the final award of \$135.8 million. Still, the district court's failure to apportion its erroneous lower amount of \$135.8 million was harmless unless Hytera was entitled to have the jury decide the amount of Motorola's lost profits.

### C. Forfeiture on Appeal

No one should be surprised that in a case of this complexity and scope, the leisurely hindsight available on appeal will turn up arguable errors favoring both sides. Nor should anyone be surprised that some arguable errors were not properly preserved for appeal. Most rights, including constitutional rights, are subject to waiver and forfeiture. That includes a party's right to have a jury determine any legal remedy in the first instance. That right is not absolute. It can be waived, leaving factual questions instead to the court. E.g., *Lacy v. Cook County*, 897 F.3d 847, 860 (7th Cir. 2018). In addition, orderly presentation of issues for appeal is critical, particularly in a case with as many issues swirling around as in this one. "An issue that falls within the scope of the judgment appealed from that is not raised by the appellant in its opening brief on appeal is necessarily waived." *Lexion Medical, LLC v. Northgate Technologies, Inc.*, 618 F. Supp. 2d 896, 902 (N.D. Ill. 2009), citing *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1360 (Fed. Cir. 2008); accord, *Dinerstein v. Google, LLC*, 73 F.4th 502, 512 (7th Cir. 2023). We find that Hytera forfeited its objections to the district court's determination of Motorola's lost profits and Hytera's own avoided R&D costs when it failed to challenge those findings in its opening brief on appeal.

Here, Hytera sufficiently preserved in the district court its arguments that Motorola's lost profits were a legal remedy to be decided by a jury. It made that point in its proposed findings of fact and conclusions of law after trial. The critical forfeiture occurred in its opening brief on appeal, however, when Hytera did not challenge the district court's finding of fact on Motorola's lost profits. Recall the structure of the trade secret statute, with its two paths to calculate compensatory

damages. Motorola is entitled to recover by whichever path awards the larger amount and entitled to a factual finding on both amounts. Motorola preserved both paths for itself through trial and post-trial briefing. Hytera's arguments (that eventually proved successful) to reduce the maximum amount of Hytera's profits obtainable as unjust enrichment on the first path necessarily put in issue the amount alternatively available on the second path (the sum of Motorola's lost profits and Hytera's avoided R&D). The district court, as required by statute, made express calculations and findings as to the amounts available on both paths. Those findings were available to support the judgment unless Hytera challenged them. Hytera did not do so in its opening brief in its own appeal, forgoing its opportunity to challenge them.

As noted, Hytera contested the \$86.2 million lost profits finding in its own proposed findings of fact before the district court made its final decision on the issue. But after the court issued its order and findings of fact, Hytera dropped any dispute with the amount of Motorola's lost profits and with whether the issue was for the jury or the court. Critically, Hytera failed to raise the issue in the opening brief for its appeal to this court. We have explained:

[P]arties can waive the right to jury trial by conduct just as they can by written or oral statements. ... A failure to object to a proceeding in which the court sits as the finder of fact "waives a valid jury demand as to any claims decided in that proceeding, at least where it was clear that the court intended to make fact determinations."

*Fillmore v. Page*, 358 F.3d 496, 503 (7th Cir. 2004), quoting *Lovell v. Dall*, 820 F.2d 223, 227 (7th Cir. 1987); accord, *United States v. Resnick*, 594 F.3d 562, 569 (7th Cir. 2010) (same).

In its second brief on appeal, in response to Motorola's argument for harmless error, Hytera argued that it had no reason to raise the issue in its opening brief because neither the judge nor the jury had made a finding on lost profits. That is not correct. The text of the DTSA plainly required a comparison of the amounts recoverable by Motorola under both paths to determine the greater amount. Neither party has disputed that requirement during or after trial. The district court made crystal clear that it was treating the jury verdict as advisory. That meant the court was obliged to make findings on both theories of compensatory damages. See *Respect Inc.*, 821 F. Supp. at 532. It did so here. Even (or especially) if the district court erred in failing to apportion the amount recoverable by Motorola on the unjust-enrichment path, we would still have to consider the alternative calculation to determine Motorola's entitlement to compensatory damages under the DTSA. That alternate path, Motorola's lost profits plus Hytera's avoided R&D, was supported by express factual findings by the district court. Hytera was not entitled to take aim at lowering just one of the two alternative paths for awarding damages for its theft of trade secrets while being forgiven for failing to challenge a clear finding by the district court concerning a higher amount available on the alternate path.

To be clear, we do not adopt or apply here a broad rule that any appellant must anticipate and address any possible harmless-error arguments in its opening brief. Hytera's forfeiture of its challenge to the district court's lost profits

finding in this case is based on the structure of these alternative statutory remedies, where the statute requires the factfinder to calculate both amounts and to award the higher. The statutory text is plain. Both sides were clearly aware throughout trial that lost profits and unjust enrichment were two alternate theories of recovery. Both were aware that Motorola would be entitled to recover the greater amount. Motorola did not sneak its \$86.2 million figure in under Hytera's nose; far from it. Hytera spent several pages challenging this figure in its own proposed findings of fact and law. But after the district court adopted Motorola's proposed lost profits amount, Hytera failed to challenge it in its opening brief to this court.

This situation is akin to a simpler case. Imagine a defendant is sued for one injury on both a tort theory and a contract theory. At trial, the defendant loses on both theories, and in a special verdict, the jury awards the same amount under each theory. The defendant cannot win on appeal without challenging both theories. Showing only, for example, that the jury instructions on the tort theory were wrong would not affect the contract verdict. On appeal, the defendant-appellant could not argue only that the tort finding was erroneous, saving its contract issues for its reply brief, after the winning plaintiff points out that any tort-theory errors were harmless because the defendant failed to challenge an independent basis for the verdict. "When a district court bases its ruling on two grounds and a plaintiff challenges only one on appeal, she 'waive[s] any claim of error in that ruling.'" *Appvion, Inc. Retirement Savings & Employee Stock Ownership Plan by & through Lyon v. Buth*, 99 F.4th 928, 954 (7th Cir. 2024) (alteration in original), quoting *Landstrom v. Illinois Dep't of Children & Family Services*, 892 F.2d 670, 678 (7th Cir. 1990).

Finally, Hytera's failure does not implicate any of the countervailing interests that have motivated us in rare cases to overlook forfeiture or waiver of the right to a jury trial on legal issues. Both parties to this case are highly sophisticated, and the district court's intent to make factual findings was clear. Hytera had plenty of notice and opportunity to challenge them on appeal. Cf. *Lacy*, 897 F.3d at 860 (declining to find waiver where "the district court failed to communicate its intent to make conclusive factual determinations"); see also *Chapman v. Kleindienst*, 507 F.2d 1246, 1253 (7th Cir. 1974) (explaining "[n]ormally, the failure to object [to resolution of factual issues by the trial judge] ... would constitute a waiver of the right to a jury trial," but making exception for *pro se* litigant who "may not have been aware of his right to object to a hearing to the court").

In sum, although the district court erred by failing to apply the correct causation standard to Hytera's claim for apportionment of the \$135.8 million DTSA compensatory damages award, we nevertheless uphold the award. The legal error on apportionment was harmless, and Hytera forfeited on appeal its argument that the jury should have made any finding on Motorola's lost profits.

#### VII. *Due Process Challenge to DTSA Punitive Damages Award*

Hytera argues that the punitive damages awarded by the district court under the DTSA, \$271.6 million, violated the substantive limits on punitive damages imposed by the due process clause of the Fifth Amendment. We reject this challenge.

We begin with a review of the procedural history of this award. The jury originally awarded Motorola \$418.8 million

in punitive damages under the DTSA, twice the jury's award of \$209.4 million in DTSA compensatory damages. This ratio matched the DTSA's statutory cap, which sets an upper limit on punitive damages at twice the award of compensatory damages. 18 U.S.C. § 1836(b)(3)(C). After trial, the district court ruled that DTSA compensatory damages, when based on defendant's gains rather than plaintiff's losses, were actually an equitable remedy subject to determination by the court rather than the jury. The district court then made its own factual findings on DTSA compensatory damages, reducing the award from \$209.4 million to \$135.8 million to avoid double-counting Hytera's avoided R&D costs with its profits. The district court then adopted the jury's now-advisory finding as to the proper ratio of punitive damages, sticking with the statutory maximum of two-to-one. The judge doubled the reduced compensatory damages award to calculate the new punitive damages award, arriving at \$271.6 million.

"Review of a constitutional challenge to a punitive damages award is *de novo*, which operates to 'ensure that an award of punitive damages is based upon an application of law, rather than a decisionmaker's caprice.'" *Estate of Moreland v. Dieter*, 395 F.3d 747, 756 (7th Cir. 2005) (alterations omitted), quoting *State Farm Mutual Automobile Ins. Co. v. Campbell*, 538 U.S. 408, 418 (2003). The Supreme Court established the framework for assessing the constitutionality of punitive damages awards in three opinions: *BMW of North America, Inc. v. Gore*, 517 U.S. 559 (1996); *Cooper Industries, Inc. v. Leatherman Tool Grp., Inc.*, 532 U.S. 424 (2001); and *State Farm*, 538 U.S. 408 (2003). In *Gore*, the Supreme Court "instructed courts reviewing punitive damages to consider three guideposts: (1) the degree of reprehensibility of the defendant's misconduct; (2) the disparity between the actual or potential

harm suffered by the plaintiff and the punitive damages award; and (3) the difference between the punitive damages awarded by the jury and the civil penalties authorized or imposed in comparable cases.” *State Farm*, 538 U.S. at 418, citing *Gore*, 517 U.S. at 575.

In *Gore*, the Supreme Court assessed the constitutionality of a state common law punitive damages award. Here, by contrast, we assess the constitutionality of punitive damages awarded pursuant to a federal statute expressly authorizing them, “a different question than the Supreme Court considered in *Gore*.” *Arizona v. ASARCO LLC*, 773 F.3d 1050, 1055 (9th Cir. 2014) (en banc). Circuit courts applying the *Gore* factors have recognized that the “landscape of our review is different when we consider a punitive damages award arising from a statute that rigidly dictates the standard a jury must apply in awarding punitive damages and narrowly caps ... compensatory damages and punitive damages.” *Id.*; see also *BNSF Railway Co. v. U.S. Dep’t of Labor*, 816 F.3d 628, 643 (10th Cir. 2016) (agreeing that review is more flexible where Congress has spoken explicitly on proper scope of punitive damages); *Abner v. Kansas City Southern Railroad Co.*, 513 F.3d 154, 164 (5th Cir. 2008) (“As we see it, the combination of the statutory cap and high threshold of culpability for any award confines the amount of the award to a level tolerated by due process. Given that Congress has effectively set the tolerable proportion, the three-factor *Gore* analysis is relevant only if the statutory cap itself offends due process.”). As the Ninth Circuit explained further in *ASARCO*:

An exacting *Gore* review, applying the three guideposts rigorously, may be appropriate when reviewing a common law punitive

damages award. However, when a punitive damages award arises from a robust statutory regime, the rigid application of the *Gore* guideposts is less necessary or appropriate. Thus, the more relevant first consideration is the statute itself, through which the legislature has spoken explicitly on the proper scope of punitive damages.

773 F.3d at 1056.

*Gore* itself shows that substantial deference is due to the Congressional judgment about punitive damages under the DTSA. The third of its three guideposts instructs courts to defer to “legislative judgments concerning appropriate sanctions for the conduct at issue.” *Gore*, 517 U.S. at 583, quoting *Browning-Ferris Industries of Vt., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257, 301 (1989) (O’Connor, J., concurring in part and dissenting in part). The “appropriate sanctions” for misappropriation under the DTSA, in Congress’s judgment, cap out at twice the compensatory damages awarded by the district court. 18 U.S.C. § 1836(b)(3)(C).

Still, all three of *Gore*’s guideposts are “undeniably of some relevance in this context.” *ASARCO*, 773 F.3d at 1055, citing *Cooper Industries*, 532 U.S. at 441–43 (applying *Gore* to punitive damages under federal Lanham Act). In *ASARCO*, the Ninth Circuit applied *Gore* to analyze the due process implications of a punitive damages award authorized and capped by a federal statute, 42 U.S.C. § 1981a, which governs damages in federal employment discrimination cases. In line with other circuits, we consider first whether the federal statutory damages cap complies with due process, and second, whether the challenged punitive damages award falls within

those statutory limits. See *ASARCO*, 773 F.3d at 1055; *Abner*, 513 F.3d at 164.

A. *The DTSA's Limits on Punitive Damages*

Under the DTSA, if a trade secret “is willfully and maliciously misappropriated,” a court may award “exemplary damages in an amount not more than 2 times the amount of the damages awarded under” the compensatory damages provisions. 18 U.S.C. § 1836(b)(3)(C). As relevant here, the compensatory damages provisions allow recovery for actual loss caused by the misappropriation and any unjust enrichment not addressed in computing actual loss. § 1836(b)(3)(B)(i). We have no doubt that the DTSA’s exemplary damages provision complies with due process.

First, keeping in mind due process considerations of fair notice, the DTSA clearly sets forth the type of conduct and the mental state a defendant must have to be found liable for punitive damages. The DTSA provides a private right of action to redress “the misappropriation of a trade secret” using two terms defined in the statute. 18 U.S.C. §§ 1839(3), (5) (defining “trade secret” and “misappropriation”). Trade secret law is familiar and well-developed. There is no doubt that Hytera’s conduct falls squarely within the statutory prohibitions. The DTSA also limits punitive damages to willful and malicious violations. 18 U.S.C. § 1836(b)(3)(C). This mens rea requirement for punitive damages easily satisfies *Gore’s* concern that conduct be reprehensible. 517 U.S. at 575; see also *ASARCO*, 773 F.3d at 1057.

Second, the DTSA sets a cap on the punitive damages available at “not more than 2 times the amount of the damages awarded” under the DTSA’s compensatory damages

provisions. 18 U.S.C. § 1836(b)(3)(C). In capping punitive damages at a ratio of two-to-one, the DTSA functions like a host of other federal statutes authorizing double or treble damages—especially for wrongdoing in commerce—whose constitutionality is virtually beyond question. *State Farm*, 538 U.S. at 425 (“[S]anctions of double, treble, or quadruple damages to deter and punish” have “a long legislative history, dating back over 700 years and going forward to today.”); *Gore*, 517 U.S. at 580 & n.33 (noting centuries-long history of such legislation); see, e.g., 15 U.S.C. § 15(a) (mandating treble damages for antitrust violations); 18 U.S.C. § 1964(c) (mandating treble damages for racketeering violations); 35 U.S.C. § 284 (authorizing treble damages for patent infringement); and 15 U.S.C. § 1117(a) (authorizing treble damages for trademark infringement).

In addition, the compensatory damages that may be multiplied to calculate punitive damages under the DTSA themselves require solid proof and must avoid duplicative and excessive recoveries. See § 1836(b)(3)(B) (courts may award “damages for actual loss ... and ... damages for any unjust enrichment ... *that is not addressed in computing damages for actual loss*; or ... *in lieu of damages measured by any other methods*, the damages ... measured by imposition of liability for a reasonable royalty”) (emphases added). The DTSA narrowly describes the categories of harm for which compensatory damages are available, and its two-to-one limit on punitive damages reasonably caps liability under the statute. Thus, *Gore*’s ratio analysis has less applicability under the DTSA because § 1836(b)(3)(C) expressly governs the ratio of punitive damages. The two-to-one limit on punitive damages is strong evidence that “Congress supplanted traditional ratio theory and effectively obviated the need for a *Gore* ratio examination” of

awards that comport with DTSA's statutory scheme. See *ASARCO*, 773 F.3d at 1057.<sup>12</sup>

Here, as in § 1981a and other federal statutes like the Sherman Act, RICO, and patent and trademark laws authorizing double or treble damages, Congress has made a specific and reasonable legislative judgment about punitive damages in cases like this one. There is no reason to search outside the text of the DTSA for legislative guidance in analogous contexts. *Id.* at 1057; see also *E.E.O.C. v. AutoZone, Inc.*, 707 F.3d 824, 840 (7th Cir. 2013) (“we need not look far to determine the legislature’s judgment concerning the appropriate level of

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<sup>12</sup> The DTSA and 42 U.S.C. § 1981a, analyzed in *ASARCO* and *Abner*, differ in that § 1981a caps the total amount of punitive and compensatory damages at a fixed dollar amount, while the DTSA caps the ratio of punitive damages to compensatory damages without an absolute limit on either type of damages. That did not make a difference to the Ninth Circuit in *ASARCO*:

When a statute narrowly describes the type of conduct subject to punitive liability, and reasonably caps that liability, it makes little sense to formalistically apply a ratio analysis devised for unrestricted state common law damages awards. That logic applies with special force here because the statute provides a consolidated cap on *both* compensatory and punitive damages.

773 F.3d at 1057 (emphasis in original). The Ninth Circuit’s “special force” language makes clear that the same logic would also apply to a statute like the DTSA, which caps only punitive damages by way of a ratio to compensatory damages. We agree with the Ninth Circuit on this point. For reasons explained in the text, the DTSA’s damages provisions work together to keep both compensatory and punitive damages award within reasonable, evidence-based bounds. Those statutory limits should ensure that an award that satisfies them will also comply with due process, except perhaps in rare cases.

damages in this case: Congress has already defined the statutory cap”). The \$271.6 million punitive damages award here complies with the DTSA’s statutory limits. Hytera “willfully and maliciously misappropriated” Motorola’s trade secrets. See 18 U.S.C. § 1836(b)(3)(C). As explained above, we affirm the district court’s \$135.8 million compensatory damages award because a procedural error in determining apportionment was harmless. The evidence amply supports a compensatory award of that amount. The \$271.6 million in DTSA punitive damages is exactly double, and thus, “not more than 2 times the amount” of compensatory damages awarded by the district court. *Id.*; see also *AutoZone*, 707 F.3d at 840 (existence of a “statutory cap suggests that an award at the capped maximum is not outlandish”). Based on the statutory limits on punitive damages in the DTSA, the award here is consistent with *Gore* and its progeny.

B. *Epic Systems Does Not Control*

Given the express federal statutory authority for this punitive damages award, Hytera’s constitutional challenge to the \$271.6 million award leans primarily on our opinion in *Epic Systems Corp. v. Tata Consultancy Services Ltd.*, 980 F.3d 1117 (7th Cir. 2020). Despite some similarities, Hytera’s reliance is not persuasive. *Epic Systems* also involved a multi-year campaign of trade secret misappropriation by one large competitor against another. In that case, an employee of defendant Tata Consultancy Services (TCS) gained access to Epic’s private web portal by disguising himself as an Epic customer. He then shared his credentials with other TCS employees, who accessed and downloaded over 6,000 confidential documents over two years. TCS’s employees lied to investigators and failed to preserve relevant evidence once

litigation had started. A jury awarded Epic \$140 million in compensatory damages for the misappropriation and \$700 million in punitive damages. *Id.* at 1123. The district court reduced the \$700 million award to \$280 million to comply with a state statute capping punitive damages on most state-law claims at a ratio of two-to-one (or \$200,000, whichever was greater). See Wis. Stat. § 895.043(6).

TCS appealed, arguing that the size of the award violated its substantive due process rights under the Fourteenth Amendment. We agreed that the award was “constitutionally excessive” and remanded with instructions to reduce the punitive damages award to a maximum of \$140 million, a ratio of one-to-one with the compensatory damages awarded. 980 F.3d at 1145. (The district court did so, and we affirmed in a successive appeal after the remand. See *Epic Systems Corp. v. Tata Consultancy Services Ltd.*, No. 22-2420, 2023 WL 4542011 (7th Cir. 2023).)

Despite similarities, there are critical differences between *Epic Systems* and this case. Although both cases concerned the theft of trade secrets, the *Epic Systems* defendants challenged punitive damages awarded under state law. 980 F.3d at 1123–24. In this case, Hytera challenges punitive damages awarded under a federal statute, the DTSA. The two-to-one statutory punitive damages cap applied by the district court in *Epic Systems* was generic, applying to nearly all Wisconsin-law claims. It did not reflect a more precise, reasoned legislative judgment with respect to the particular claims for which punitive damages were sought.

The opposite is true here. The two-to-one punitive damages cap is tailored to the wrongdoing, included by Congress in the same federal statute creating the cause of action.

Recalling the purposes and values driving *Gore*, this difference alone is sufficient to distinguish the two cases. “When a statute narrowly describes the type of conduct subject to punitive liability, and reasonably caps that liability, it makes little sense to formalistically apply a ratio analysis devised for unrestricted state common law damages awards.” *ASARCO*, 773 F.3d at 1057. The state statutory and common law claims at issue in *Epic Systems* looked much more like the state common law claims the Supreme Court considered in *Gore* itself, justifying more exacting *Gore* review.

If the due process holding of *Epic Systems* were read to elide this key distinction, it would call into question the constitutionality of many federal statutes expressly authorizing punitive or multiple damages. This important limit on *Epic Systems* was highlighted when the plaintiff in that case sought Supreme Court review of our due process ruling. The Court invited the views of the Solicitor General, who recommended denial of certiorari by pointing to exactly this limit:

If a court of appeals relies on the Seventh Circuit’s decision to hold that an enhanced-damages award *under federal law* violates the Due Process Clause, this Court’s review may be warranted at that time. But given the important distinctions between the Wisconsin cap at issue here and the various federal laws that authorize enhanced damages, the decision below is not properly understood to affect those statutes.

Brief for the United States as Amicus Curiae at 23, *Epic Systems Corp. v. Tata Consultancy Services Ltd.*, 142 S. Ct. 1400 (2022) (mem.) (No. 20-1426), 2022 WL 476882, at \*23 (emphasis added). We agree with the Solicitor General’s reasoning. Our

decision in *Epic Systems* is not properly understood to affect federal statutes like the DTSA that allow for enhanced damages awards. On that basis alone, *Epic Systems* does not control this case.<sup>13</sup>

This case is distinguishable from *Epic Systems* for two further factual reasons. First, Hytera's conduct here was reprehensible "to an extreme degree," far worse than even the behavior of defendant TCS in *Epic Systems*. 930 F.3d at 1144.

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<sup>13</sup> We also addressed similar due process issues in *Saccameno v. U.S. Bank N.A.*, 943 F.3d 1071 (7th Cir. 2019), where we affirmed a verdict under a state consumer protection law awarding compensatory and punitive damages for oppressive conduct by a creditor. We ultimately applied the due process clause of the Fourteenth Amendment to reduce the punitive damages awarded in that case to a ratio of one-to-one (\$582,000 for each type), using as the denominator in our *Gore* ratio analysis the sum of compensatory damages awarded for all claims. *Id.* at 1084–91.

Our thorough discussion of the factual details in *Saccameno* shows that we were not suggesting that a one-to-one ratio must govern in all applications of that state consumer protection statute, let alone of all statutes authorizing punitive damages in commercial settings involving monetary harm. Our application of the *Gore* factors was, as required, fact-intensive. Critically, we deemed the defendant's wrongdoing in *Saccameno* to be the result of indifference, not the willful and malicious conduct Hytera has undertaken here. See *id.* at 1090. We also gave weight to the fact that plaintiff Saccameno's compensatory damages award included emotional distress damages, which "already contain [a] punitive element." *Id.*, quoting *State Farm*, 538 U.S. at 426. We have no such elements in the compensatory damages award in this case. Moreover, unlike the DTSA, the state law authorizing punitive damages in *Saccameno* did not reflect a specific legislative judgment as to the appropriate ratio of punitive damages in the case at hand. See 18 U.S.C. § 1836(b)(3)(C). In light of the important factual differences and the deference owed to specific legislative judgments under *Gore*'s third guidepost, 517 U.S. at 583, *Saccameno*'s sound reasoning does not require a one-to-one ratio in this case.

Second, Motorola proved it had suffered significantly greater harm resulting from the misappropriation than did plaintiff Epic Systems.

First, in *Epic Systems*, we found that the conduct of TCS was “reprehensible, but not to an extreme degree.” 980 F.3d at 1144. *Gore*’s reprehensibility guideline involves a consideration of five factors, and for the same reasons articulated in *Epic Systems*, the first three weigh against punitive damages here. See *id.* at 1141. We focus on the fourth and fifth: whether “the conduct involved repeated actions or was an isolated incident;” and whether “the harm was the result of intentional malice, trickery, or deceit, or mere accident.” *Id.*, quoting *State Farm*, 538 U.S. at 419.

As to the fourth factor, unlawful access to Epic’s trade secrets extended to only internal use by “dozens of TCS employees.” *Id.* at 1125. Hytera, in contrast, used Motorola’s trade secrets to launch an entirely new and successful product line of professional-tier radios between 2010 and 2014 that it then sold worldwide, in direct competition with Motorola. And with respect to the fifth factor, in *Epic Systems*, the original deceitful act used to gain access to Epic’s trade secrets was done by someone outside of TCS’s control; TCS discovered this employee’s illicit access belatedly and only then took advantage of it. *Id.* at 1125 (“Before working for TCS, [the thief] worked for a different company .... While working for that company, [he] falsely identified himself to Epic as a [customer], and Epic granted [him] full access to” its trade secrets.).

Hytera’s conduct was even more reprehensible. Hytera’s CEO directly solicited Motorola employees to steal trade secrets while they still worked for Motorola. The Motorola employees spent months illicitly downloading Motorola’s source

code and other trade secrets for Hytera, and they all eventually left Motorola for high-paying jobs at Hytera.

In addition, *Epic Systems* considered the defendant's deceit and foot-dragging during litigation of the trade secret theft as evidence of increased reprehensibility. *Id.* at 1126, 1142. Hytera's litigation misconduct in this case seems to have been even more severe. See *Motorola Solutions Malaysia SDN. BHD. v. Hytera Communications Corp.*, No. 24-1531, Order, ECF No. 9 at 7 (April 6, 2024) ("Hytera's record of behavior" including "sanctionable conduct before trial, the post-verdict litigation in this case, the failure to pay royalties as ordered (leading to an earlier contempt finding), filing the long-secret Shenzhen case, and its responses to the injunctions at issue ... show[] that its unverified representations to the tribunal cannot be trusted.").

Second, and even more important, unlike the plaintiff in *Epic Systems*, Motorola suffered large and measurable harms caused by the theft of its trade secrets: \$86.2 million in lost profits, and \$73.6 million in Hytera's avoided R&D costs. The second *Gore* guidepost requires us to "analyze the ratio of punitive damages to the 'harm, or potential harm' inflicted on the plaintiff." *Epic Systems*, 980 F.3d at 1142, quoting *State Farm*, 538 U.S. at 424. "In most cases, the compensatory-damages award approximates the plaintiff's harm" and can thus be used as the denominator for *Gore*'s ratio analysis. *Id.*

Hytera argues here that because the district court awarded punitive damages of twice its finding of unjust enrichment, the award did not reflect any actual harm to Motorola. We explained above, however, the alternative damages calculations required under the DTSA, as well as the district court's factual

findings on the amounts of Motorola’s lost profits and Hytera’s avoided R&D costs.

In *Epic Systems*, we raised questions about the extent to which unjust enrichment to the defendant could provide an appropriate measuring stick for punitive damages, 980 F.3d at 1143, because *Gore*’s denominator typically measures harm to the plaintiff. 517 U.S. at 580. We need not announce here a sweeping rule about unjust enrichment, punitive damages, and the due process clause. Several features of this case persuade us that, to the extent our due process analysis of a punitive damages award within the DTSA’s statutory cap is aided by a ratio analysis, the Fifth Amendment’s due process clause does not forbid including both Motorola’s lost profits and Hytera’s avoided R&D costs in the denominator as harms to Motorola. First, of course, the DTSA expressly authorizes as a compensatory award the sum of those numbers. See 18 U.S.C. § 1836(b)(3)(B)(i). That is part of the legislative judgment that deserves our deference. See *Gore*, 517 U.S. at 583.

Second, we acknowledged in *Epic Systems* that, in certain circumstances, courts may “account for [unjust enrichment] in the harm-to-punitive-damages ratio.” See 980 F.3d at 1142, citing *Sommerfield v. Knasiak*, 967 F.3d 617, 623–24 (7th Cir. 2020); see also *id.* at 1143, citing *Rhone-Poulenc Agro, S.A. v. DeKalb Genetics Corp.*, 272 F.3d 1335, 1351 (Fed. Cir. 2001) (punitive damages may be based on an unjust enrichment award when defendant’s gain is “logically related” to plaintiff’s “harm or potential harm”), vacated, 538 U.S. 974 (2003), on remand, 345 F.3d 1366 (reaching same result as to punitive damages).

Third, the nature of this unjust enrichment award differs from the unjust enrichment award in *Epic Systems* in ways that

make it more appropriate to account for unjust enrichment in the harm-to-punitive-damages ratio here. In trade secret cases, “unjust enrichment can take several forms and cover a broad array of activities.” *Syntel Sterling Best Shores Mauritius Ltd. v. TriZetto Grp., Inc.*, 68 F.4th 792 (2d Cir. 2023); see also *Epic Systems*, 980 F.3d at 1130 (“Simply put, there is no single way to measure the benefit conferred on a defendant; the measurement is context dependent.”). In both *Epic Systems* and this case, the relevant unjust enrichment awards were calculated based on avoided R&D costs. See 980 F.3d at 1130. But even two awards of avoided R&D costs can differ meaningfully in their method of calculation, depending on how defendants used and profited from the stolen trade secrets. See *Syntel*, 68 F.4th at 810 (“[T]he amount of avoided costs damages recoverable must still derive from ‘a comparative appraisal of all the factors in the case,’ among which are ‘the nature and extent of the appropriation’ and ‘the relative adequacy to the plaintiff of other remedies.’”), quoting Restatement (Third) of Unfair Competition § 45(2) (Am. L. Inst. 1995). These differences help determine whether a particular unjust enrichment award can be counted as harm to the plaintiff for purposes of *Gore*’s ratio analysis.

In *Epic Systems*, the avoided R&D costs were awarded based on a “‘head start’ TCS gained in development and competition” that was indirectly related to product sales and hard to quantify: “a free shot—using stolen information—to determine whether it would be profitable” to improve an existing product to enter a new market. *Id.* at 1130, 1132. In *Epic Systems*, TCS put Epic’s trade secrets to use primarily to create a “comparative analysis” of the two competitors’ software, which it then used to try—without success—to poach one of Epic’s largest clients, to enter the U.S. market,

and to address key gaps in its own software. *Id.* at 1131. Thus, any competitive harm to Epic was “hard to quantify” because “Epic was not deprived of the enjoyment of its software, did not lose business, and did not face any new competition.” *Id.* at 1142. Consequently, it was clear that the \$140 million in avoided R&D costs did not “reflect Epic’s harm.” *Id.* at 1143.

The opposite is true here. Hytera’s avoided R&D costs of \$73.6 million were not, as in *Epic Systems*, based on speculative, hard-to-quantify competitive harms where stolen information was used only to determine *whether* to improve a product or enter a new market. Hytera’s theft of trade secrets included not just documentation *about* Motorola’s radios but the source code itself, perhaps the most valuable part of a functional DMR radio. Before the theft, Hytera had struggled internally to develop its own DMR radio source code. After the theft, Hytera relied on the stolen code to launch a profitable line of products that it sold worldwide. The avoided R&D costs (and Hytera’s reduced time to bring its products to market) in this case had a direct competitive effect on Motorola. In a case between the two largest competitors in the relevant global market, these avoided R&D costs are “no less beneficial to the recipient than a direct transfer” of \$73.6 million from Motorola to Hytera. *Syntel*, 68 F.4th at 810 (cleaned up), quoting Restatement (Third) of Unfair Competition § 1 cmt. d. We have already found that Hytera’s misappropriation harmed Motorola “*beyond* its actual loss of [\$86.2 million] in lost profits.” See *Syntel*, 68 F.4th at 810; see also *id.* at 811–112 (whether there is “compensable harm supporting an unjust enrichment award of avoided costs” depends on “the extent to which the defendant has used the secret in developing its own competing product, the extent to which the defendant’s misappropriation has destroyed the secret’s value for the original owner,

or the extent to which the defendant can be stopped from profiting further from its misappropriation in the future.”).

Given the particularly harmful nature of Hytera’s misappropriation to the value of Motorola’s trade secrets and the nature of the unjust enrichment award in this case, we find it appropriate to treat Hytera’s avoided R&D costs as a competitive harm to Motorola. Accordingly, the economic and competitive harms to Motorola were quantifiable and large: Motorola’s lost profits of \$86.2 million and Hytera’s avoided R&D costs of \$73.6 million. Given the increased reprehensibility of Hytera’s actions here and the significant, quantifiable harms to Motorola, *Epic Systems* does not control, and the punitive damages award did not violate due process.

#### VIII. *Permanent Injunctive Relief*

Finally, we address Motorola’s cross-appeal asserting that the district court abused its discretion in denying Motorola’s request for a permanent injunction on Hytera’s worldwide sales of infringing products. The DTSA authorizes injunctions “to prevent any actual or threatened misappropriation.” 18 U.S.C. § 1836(b)(3)(A)(i). Motorola moved in the district court for a permanent injunction enjoining Hytera from continuing to misappropriate Motorola’s trade secrets and infringing its copyrights, including any further sales of any of Hytera’s infringing products anywhere in the world. The district court denied that motion, opting instead to order a reasonable royalty at a rate to be determined later. *Motorola Solutions, Inc. v. Hytera Communications Corp.*, No. 1:17-cv-1973, 2020 WL 13898832, at \*1 (N.D. Ill. Dec. 17, 2020).

A few months later, Motorola moved to reconsider that denial under Federal Rule of Civil Procedure 60(b), arguing

that its harm could not be remedied by money damages because Hytera's actions during the intervening months showed that it was either unwilling or unable to pay an ongoing royalty. Rule 60(b) allows relief from orders for reasons including mistake, newly discovered evidence, and misconduct by an opposing party. Motorola argued that relief was justified because, when the district court had denied Motorola's request for a permanent injunction, it believed that Motorola could and would be fully compensated for the harms Motorola had already suffered and would continue to suffer as a result of Hytera's theft. Motorola argued: "Recent events in connection with Motorola's judgment enforcement efforts have now revealed that belief was incorrect." Dkt. No. 1240 at 2.

Before the district court ruled on Motorola's motion, however, Hytera filed its appeal. Motorola responded by filing a cross-appeal that included the denial of its motion for a permanent injunction. Shortly after Motorola filed its cross-appeal, the district court denied Motorola's Rule 60(b) motion for reconsideration, reasoning that Motorola's appeal of the denial of an injunction deprived the district court of jurisdiction.

In its cross-appeal, Motorola argues that even if the district court lacked jurisdiction, it still should have considered the motion for reconsideration and issued an indicative ruling, citing *Boyko v. Anderson*, 185 F.3d 672, 675 (7th Cir. 1999). These are matters entrusted to a district court's sound discretion. In light of the post-judgment developments here, however, we agree with Motorola that the district court's denial of the Rule 60(b) motion for lack of jurisdiction reflected a legal error. We begin with a discussion of the procedure that should

be followed by district courts confronting Rule 60(b) motions after an appeal has been docketed, including the history and effects of Federal Rule of Civil Procedure 62.1, which applies in this situation.

“The effect of pending ... appeals on the power of the trial court to grant relief under Rule 60 is not free from doubt.” 11 Charles Alan Wright & Arthur R. Miller, *Federal Practice & Procedure* § 2873 (3d ed. 2024). Rule 60(b) “is silent on the question.” *Id.* In past decades, some courts adopted the view the district court did here: “that the district court has no power to consider a motion under Rule 60(b) after a notice of appeal has been filed.” *Id.* But this circuit adopted a “different and more satisfactory procedure,” so that “during the pendency of an appeal the district court may consider a Rule 60(b) motion and if it indicates that it is inclined to grant it, application then can be made to the appellate court for a remand.” *Id.*, citing *Boyko*, 185 F.3d 672. “The logical consequence” of this rule “is that the district court may deny the motion although it cannot, until there has been a remand, grant it.” *Id.*; see *Boyko*, 185 F.3d at 675 (“[W]e are among the courts that hold that the judge does have the power to deny, though not to grant, a Rule 60(b) motion filed while an appeal is pending.”). We spelled this out in *Brown v. United States*:

The district court refused to consider [plaintiff’s] Rule 60(b) motion, assuming that it had no jurisdiction to do so because a notice of appeal had been filed. In fact, the court did have jurisdiction to consider the motion. Parties may file motions under Rule 60(b) in the district court while an appeal is pending. In such circumstances, we have directed district courts to

review such motions promptly, and either deny them or, if the court is inclined to grant relief, to so indicate so that we may order a speedy remand.

976 F.2d 1104, 1110–11 (7th Cir. 1992).

The problem posed by Rule 60(b) motions during a pending appeal was addressed in 2009 by adoption of Rule 62.1 on indicative rulings, which adopted our practice. 11 Wright & Miller, *supra*, § 2873. When a district court faces a motion for relief it cannot grant because of a pending appeal, the court may defer or deny the motion, but it also may indicate that it would grant the motion on remand or that the motion raises a substantial issue. *In re Checking Account Overdraft Litigation*, 754 F.3d 1290, 1297 (11th Cir. 2014) (footnote omitted). The final subsection of Rule 62.1 confirms that “the district court may grant the motion only if the appellate court specifically remands for that purpose.” 11 Wright & Miller, *supra*, § 2911.

Rule 62.1 means that “the district judge had an option other than a summary denial of [Motorola’s] Rule 60(b) motion based on the still-pending appeals.” See *Ameritech Corp. v. Int’l Brotherhood of Elec. Workers, Local 21*, 543 F.3d 414, 419 (7th Cir. 2008).

A motion to vacate a judgment pursuant to Rule 60(b) is addressed to the sound discretion of a district court .... However, a trial court may abuse its discretion by failing to exercise its discretion. Furthermore, the abuse of discretion standard implies that the judge must actually exercise his discretion. In this case, the district court’s erroneous denial of jurisdiction resulted

in an abuse of its discretion when it failed to exercise any discretion in not reaching the merits of the plaintiff's Rule 60(b) motion. We reverse the district court's denial of plaintiff's Rule 60(b) motion and remand for a determination of the merits of the motion.

*LSLJ Partnership v. Frito-Lay, Inc.*, 920 F.2d 476, 479 (7th Cir. 1990) (internal quotations and alteration omitted).

Under this standard, the district court here erred by finding that it could not even consider the possibility of an indicative ruling on Motorola's Rule 60(b) motion. The motion identified recent developments that called into serious question the court's reason for denying a permanent injunction. Under these circumstances, that denial needs a fresh look. We vacate the denial of Motorola's Rule 60(b) motion and remand to the district court to consider it on the merits.

One proper procedure after Motorola's notice of appeal was filed would have been for the district court to issue an indicative ruling on the outstanding Rule 60(b) motion under Rule 62.1. Or, if the district court believed that motion presented a substantial issue that might require evidentiary hearings beyond the scope of its limited jurisdiction over Rule 60(b) motions once an appeal is pending, it could have issued an order noting the substantial issue. See *Boyko*, 185 F.3d at 675. The Advisory Committee Notes to Rule 62.1 instruct that when a Rule 60(b) motion "present[s] complex issues that require extensive litigation and that may either be mooted or be presented in a different context by decision of the issues raised on appeal," the best practice for the district court is to "state that the motion raises a substantial issue, and to state the reasons why it prefers to decide only if the court of

appeals agrees that it would be useful to decide the motion before decision of the pending appeal.” Fed. R. Civ. P. 62.1 advisory committee’s note to 2009 amendment.

If, in considering these options, “the judge thought there was some chance that he would grant the Rule 60(b) motion, but he needed to conduct an evidentiary hearing in order to be able to make a definitive ruling on the question, he should have indicated that this was how he wanted to proceed.” *Boyko*, 185 F.3d at 675. At that point, Motorola

would then have asked us to order a limited remand to enable the judge to conduct the hearing. If after the hearing the judge decided ... that he did want to grant the Rule 60(b) motion, he should have so indicated on the record and [Motorola] would then have asked us to remand the case to enable the judge to act on the motion and we would have done so. As we explained earlier, this would not be a limited remand but the scope of our eventual review of any appeal taken from the order entered by the district court on remand would depend on the nature of that order.

See *id.* at 675–76 (citations omitted).

Under Federal Rule of Appellate Procedure 12.1, the decision to remand is left to the discretion of the appellate court. “[I]t is premature to relinquish appellate jurisdiction before the district court has given any indication of its likely response to the Rule 60(b) motion.” *Boyko*, 185 F.3d at 674. Here we are remanding the case for reconsideration of the copyright damages award. There is no need for a limited remand

for an indicative ruling on permanent injunctive relief. However, the district court's earlier procedural error means that on remand, the court must take a fresh look at Motorola's Rule 60(b) motion for reconsideration of the denial of a permanent injunction to determine whether the new evidence of Hytera's non-payment and other post-judgment conduct and events calls for a different result.

On remand on this issue, Motorola will be free to supplement its motion or to file a new Rule 60(b) motion including additional evidence of Hytera's litigation misconduct that has come to light since the original denial of a permanent injunction. Since that denial, Hytera has acted in ways that might well have surpassed the judge's worst-case predictions. Because we have not ruled on the merits of either Motorola's original motion for a permanent injunction or its motion for reconsideration in finishing with this case, there is no jurisdictional obstacle for the district court in reconsidering Motorola's original Rule 60(b) motion. See *Standard Oil Co. of California v. United States*, 429 U.S. 17, 18–19 (1976) (district court may take appropriate action without appellate court's leave on Rule 60(b) motion that would reopen a case which has been reviewed on appeal); *LSLJ Partnership*, 920 F.2d at 478–79 (same). After Judge Norgle's retirement, after a long and distinguished career, this case was assigned to Judge Pacold. We have commended her close attention to crafting appropriate temporary injunctive relief in recent proceedings in this case. See *Motorola Solutions Malaysia SDN. BHD. v. Hytera Communications Corp.*, No. 24-1531, Order, ECF No. 24 at 7 (April 16, 2024). We remain confident of the court's ability to do so with respect to permanent injunctive relief on remand.

The judgment of the district court is REVERSED IN PART with respect to the availability of copyright damages for Hytera's extraterritorial sales, Hytera's entitlement to prove apportionment of its copyright damages under a proximate-cause theory, and the denial of Motorola's Rule 60(b) motion for reconsideration of the denial of injunctive relief. The case is REMANDED for further proceedings on those issues consistent with this opinion. In all other respects, the judgment of the district court is AFFIRMED.