11-1126-cr

United States Court of Appeals

for the

Second Circuit

UNITED STATES OF AMERICA,

Appellee,

– v. –

SERGEY ALEYNIKOV,

Defendant-Appellant.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

BRIEF FOR DEFENDANT-APPELLANT

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STATEMENT OF JURISDICTION

This is an appeal from a final judgment of conviction and sentence entered on March 23, 2011, in Case Number 1:10-cr-00096-DLC, following a jury trial in the United States District Court for the Southern District of New York (Hon. Denise L. Cote, U.S.D.J.) (SPA-136.) Aleynikov timely filed a notice of appeal on March 23, 2011. (A-542.) See FRAP 4(b)(2). It is hereby certified that the judgment of the district court disposed of all claims as to all parties. The district court had jurisdiction pursuant to 18 U.S.C. § 3231, and this Court has jurisdiction pursuant to 28 U.S.C. § 1291.

ISSUES PRESENTED

1. Whether intangible, intellectual property, such as computer source code, constitutes "goods, wares or merchandise" within the meaning of the Interstate Transportation of Stolen Property Act (the "ITSPA"), 18 U.S.C. § 2314.

2. Whether there was sufficient evidence of a market for the source code to sustain Aleynikov's conviction under the ITSPA, and whether the district court improperly permitted introduction of irrelevant market evidence.

3. Whether the Economic Espionage Act (the "EEA"), 18 US.C. § 1832, federalizes the theft of computer source code for a proprietary high-frequency trading system built for strict internal use that was not intended to be placed in the

stream of commerce.

4. Whether there was sufficient evidence that Aleynikov intended to injure Goldman Sachs ("Goldman") to sustain his conviction under the EEA.

5. Whether Aleynikov's sentence was reasonable where it was premised on an unsupported loss amount and was more than two and one-half times the sentence imposed upon a similarly situated defendant three weeks earlier in the same courthouse and more than four times the sentence the U.S. Probation Office recommended.

6. Whether the Government constructively amended the Indictment by introducing evidence that Aleynikov downloaded documents from Goldman that were not charged in the Indictment.

STATEMENT OF THE CASE

On July 3, 2009, the Government filed a two-count Criminal Complaint against Aleynikov charging him with (1) theft of a trade secret in violation of the EEA; and (2) the transportation of stolen property in violation of the ITSPA. (A-2[Dkt#1].) The Complaint alleged that Aleynikov stole proprietary source code for Goldman's Trading System the ("Trading System"). (Id.)

On February 11, 2010, the grand jury returned a three-count indictment against Aleynikov. (A-20-33.) Count One charged him with violating the EEA, Count Two charged him with violating the ITSPA, and Count Three charged him with exceeding authorized computer access in violation of the Computer Fraud and Abuse Act ("CFAA"), 18 U.S.C. §§ 1030(a)(2)(C), (c)(2)(B)(i-iii).

On June 10, 2010, Aleynikov subpoenaed the source code for Goldman's entire Trading System with the intent to prove that what he was accused of taking did not have economic value without the remaining portions of the Trading System and did not have the capacity to injure Goldman. The Court quashed the overwhelming majority of Aleynikov's subpoena requests on June 29, 2010. (A-8[Dkt#42].)

In an Opinion and Order filed September 3, 2010, the district court granted Aleynikov's motion to dismiss the CFAA count but denied his motion to dismiss the EEA and ITSPA counts. (SPA-1-49; United States v. Aleynikov, 737 F. Supp. 2d 173 (S.D.N.Y. 2010).)

On October 25, 2010, Aleynikov moved to exclude evidence of a market for entire high-frequency trading ("HFT") systems because he was charged with stealing only components of Goldman's system. (A-10[Dkt#65].) On November 19, 2010, the Court denied the motion. (A-58.)

On December 6, 2010, Aleynikov moved in limine to strike Government Exhibits 108-A through 108-L, and any testimony related to those exhibits, and for a limiting instruction regarding those exhibits, after the Government signaled its intention to argue they were additional trade secrets stolen by Aleynikov, a charge not contained in the Indictment. The district court denied that motion. (A-308.) On December 10, 2010, the jury returned a verdict finding Aleynikov guilty of the two remaining counts of the Indictment. (A-551.)

On December 23, 2010, Aleynikov timely filed a post-trial motion for a judgment of acquittal, pursuant to Federal Rule of Criminal Procedure 29, or for a new trial, pursuant to Rule 33. (A-15[Dkt#118].) The district court denied that motion on March 16, 2011. (SPA-50-135; United States v. Aleynikov, 10 CR 0096, 2011 U.S. Dist. LEXIS 33345 (S.D.N.Y. Mar. 16, 2011).)

On February 24, 2011, on the Government's application, the district court revoked Aleynikov's bail and remanded him based on a finding that he posed a risk of flight. (A-16[Dkt#129].)

On March 18, 2011, the district court sentenced Aleynikov to a term of imprisonment of 97 months. (SPA-136-141.) On March 28, 2011, the district court denied Aleynikov's motion for bail pending appeal. (A-19[Dkt#152].) A panel of this court denied Aleynikov's emergency bail motion.

Aleynikov timely filed a notice of appeal on March 23, 2011. (A-682.)

STATEMENT OF FACTS

A. Background.

1. Goldman.

Goldman is a financial services firm engaged in, among other things, high-frequency trading on various commodities and equities markets. (A-20.) High-frequency trading involves trading high volumes of financial instruments, where trading decisions are made and executed in microseconds by computer programs that use complex mathematical formulas, known as algorithms. (A-252.) The algorithms reflect strategies developed by a firm's traders and make trading decisions based on statistical analysis of past trades and moment-to-moment market developments. (A-21.)

Goldman's HFT business was supported by a system of computer programs that rapidly obtained market information, processed that information into a form that could be analyzed by the algorithms, and then executed trades determined by the algorithms. (A-21-22.) In or about 1999, Goldman acquired Hull Trading Company ("Hull"). Among the assets Goldman acquired in that acquisition was Hull's HFT system, portions of which are still employed in the Trading System. (A-22,180-81.)

Goldman employs computer programmers to write and alter the "source code" that constitutes the Trading System. (A-22.) Source code is a sequence of human-readable programming instructions that specify the actions to be performed by a computer program. (Id.) Goldman's programmers modified the source code and algorithms daily, both to increase performance of the system and to take advantage of changing market conditions. (A-166,181.)

According to the Indictment and the evidence, Goldman has not licensed its Trading System, and has not made it available to the public. (A-22.) In 2009, three Goldman lines of business engaged in HFT earned "net pretax income" of approximately $300 million. (A-359.)

2. Teza and Malyshev

In April 2009, Teza Technologies, Inc. ("Teza") was a newly-formed Chicago HFT firm (A-20) founded by Misha Malyshev, an HFT visionary who personally earned $75 million in cash in 2008 from an HFT system he built for the hedge fund Citadel. (A-309-10.) Malyshev was so well compensated because he made Citadel $1,145,000,000.00 in one year — nearly four times what Goldman earned in a year from HFT. (A-310.) Malyshev left Citadel to build a new trading system — the best in the world. (Id.) A Government witness, he testified that he did not consider Goldman a significant competitor and would not have taken Goldman's Trading System (which earned a fraction of what Citadel's system earned) if Goldman had offered to give it to him. (A-321-22.)

3. Aleynikov

Aleynikov is a computer programmer and an established developer and contributor of open source software. (A-474.) From May 2007 through June 5, 2009, he was a Vice President in Goldman's Equities Division, where he was responsible for developing and improving aspects of the Trading System. (A-24.) Aleynikov was not disgruntled and enjoyed his work and colleagues at Goldman. (A-238.) When a competing bank offered him more money in mid-2008, Goldman gave him a significant raise to entice him to stay. (A-229.)

In April 2009, however, Aleynikov accepted the position of Executive Vice President, Platform Engineering at Teza, where he was to develop its HFT platform. (A-24.) In an email Malyshev sent Aleynikov and other members of his development team on May 31, 2009, he urged them to get Teza's trading platform up and running within six months. (A-681.)

4. The Alleged Theft and Interstate Transportation of Goldman's Source Code.

Throughout his tenure at Goldman, Aleynikov transferred, in violation of Goldman's confidentiality policies, source code for its Trading System to his home computers via emails bearing the subject "work at home." (A-422,464,469.)

On June 5, 2009, the last day Aleynikov worked in Goldman's offices, he transferred source code for portions of Goldman's System from its computer network to a source code repository on the Internet. (A-25.) Thereafter, Aleynikov accessed the repository from his home in New Jersey and downloaded the code to his home computer. He later copied some of the files to other home computers and to a portable drive. (A-27-28.)

Open source code was embedded throughout the code Aleynikov took. (A-474.) Open source code is computer code licensed for use by the public; individuals and entities that use open source code in their proprietary computer systems do not own that code. (A-183,315.)

On July 2, 2009, Aleynikov flew to Chicago for meetings at Teza. (A-28.) Aleynikov brought his laptop computer and flash drive, which contained Goldman source code. (A-29.) Aleynikov never mentioned the code or offered to make it available to Teza, instead using the laptop and flash drive exclusively to conduct a presentation of an open-source language to Teza developers. (A-335,337.) Teza policy prohibited employees from bringing proprietary information from former employers. (A-671,674.) Aleynikov never offered to bring Goldman code to Teza and, had he done so, would have been fired "on the spot." (A-322.) When arrested, he admitted downloading Goldman proprietary and open-source code and concealing his breach of confidentiality, but denied any intent to harm Goldman. (A-404-05.)

SUMMARY OF THE ARGUMENT

Sergey Aleynikov, a former computer programmer at Goldman, was sentenced to 97 months in prison on his conviction for stealing computer source code used in Goldman's high-frequency trading system in violation of the Economic Espionage Act of 1996 and the Interstate Transportation of Stolen Property Act. Although the Government conceded at sentencing that Goldman suffered no actual loss as a consequence of Aleynikov's conduct, it convinced the district court that his theft reflected an intended loss of \$7 to \$20 million. The Government predicated that calculation on the unproven theory that Aleynikov intended to use the source code he downloaded — which, the Government agreed, did not constitute Goldman's entire Trading System — to enable his new employer, Teza, to compete with Goldman and to cause it a loss in that amount.

The Government presented no evidence to support that loss calculation or to justify its conjecture that Teza — a start-up founded by Citadel's Misha Malyshev, one of the most prominent and successful figures in the high frequency trading industry — even intended to employ trading strategies that would compete with Goldman. Although it used the Government's \$7 to \$20 million loss figure as a starting point in formulating its sentencing recommendation, the United States Probation Office described that figure as "ambiguous" and properly concluded that it led to a "staggeringly high offense level" that would result in an "unreasonable sentencing range." Accordingly, Probation recommended that despite that ambiguous intended loss figure, the district court sentence Aleynikov to 24 months' imprisonment. Ignoring that recommendation and instead sentencing Aleynikov to 97 months in prison — more than four times the recommended sentence — the district court also ignored the 36-month prison sentence Judge Rakoff imposed three weeks earlier on Samarth Agrawal, a Société Générale ("SocGen") trader convicted of stealing source code for a trading system who, the court found, intended the same $7 to $20 million loss as Aleynikov.

Beyond the objectively unreasonable and wildly disparate sentence imposed on Aleynikov, his case should never have gone to the jury because the conduct charged in the Indictment — stealing computer source code for an investment bank's proprietary high frequency trading system — does not constitute a violation of the EEA or the ITSPA. The EEA proscribes theft of trade secrets "related to or included in a product that is produced for or placed in interstate or foreign commerce." That statute does not federalize theft of trade secrets in the form of source code for a proprietary HFT system that was never intended to be placed in the stream of commerce. As the Indictment alleged and the evidence showed, the Trading System was not "produced for or placed in interstate or foreign commerce" as that phrase is ordinarily understood and used by Congress.

To sustain the EEA charge, the district court disregarded Congress's limitation of that statute to products "produced for or placed in" interstate commerce, rejecting the only logical meaning of "produced for … interstate commerce" in that context — "intended for shipment in interstate commerce" — and adopting the far broader "produced for the purpose of engaging in" interstate commerce. Beyond ignoring the parallel construction of the statutory language and rendering the "placed in" component superfluous (for products "placed in" interstate commerce surely fall within the broader category of products "produced for the purpose of engaging in" interstate commerce), the district court's reading recast a limited federal proscription of a particular type of trade-secret theft — a traditional state-law offense — into a broad federalization of that crime.

Nor does the district court's reference to the Trading System's "strong and substantial connection to interstate commerce" lessen the reach of the statute under its interpretation. Without regard to the breadth (or constitutionality) of a statute federalizing theft of anything produced for the purpose of engaging in interstate commerce, Congress did not use those words in the EEA, and neither the Government nor the district court is empowered to read them into the statute. Because the Court's reading cannot be squared with the EEA itself, Count One of the Indictment should have been dismissed for failure to state an offense.

The Indictment also charged an ITSPA violation based on the same offense conduct. As every circuit court to address the issue has found, however, the ITSPA does not criminalize the theft of intangible property. Indeed, in passing the EEA, Congress expressly found that then-extant laws such as the ITSPA did not cover theft of intangible property. The ITSPA count, therefore, should also have been dismissed for failure to state an offense. Had the district court properly interpreted the EEA and the ITSPA, it would have found — as it did with respect to the CFAA charge in Count Three of the original Indictment, which it dismissed on a pretrial motion — that those statutes do not apply to the charged conduct.

Beyond the Indictment's failure to state an offense under the EEA, the Government failed to prove that Aleynikov intended or knew his conduct would harm Goldman, as required by that statute. Therefore, he was also entitled to acquittal on the EEA charge based on insufficiency of the evidence. Moreover, because the Government failed to establish a market — even a thieves' market — for the stolen source code, as required to prove theft of "goods, wares or merchandise" within the meaning of the ITSPA, the evidence was insufficient on that charge as well.

Aleynikov's trial was also infected by numerous erroneous rulings that warrant a new trial if his conviction is not overturned for failure to state an offense or insufficiency of the evidence. Most notably, the Government constructively amended the Indictment, which charged Aleynikov with stealing computer source code, by introducing and relying upon evidence that he copied presentations and schematics in addition to source code, thereby making it uncertain whether he was convicted of conduct charged in the Indictment.

Aleynikov's unreasonable sentence flowed directly from his prosecution under inapplicable statutes. With trade secret thefts actually related to products produced for or placed in interstate commerce, the resulting harm is actual or threatened loss of market share. But where, as here, the trade secret is unrelated to a product "produced for or placed in interstate commerce," economic harm may not be threatened or even conceivable. In such instances, calculating a "loss amount" divorced from the type of harm caused or intended can dramatically overstate the criminality of the offense — a fact not lost on Probation in this case and Judge Rakoff in Agrawal, which is why both eschewed a mechanical operation of the sentencing guidelines in favor of a reasonable approach. A similar problem attends trying to intuit a loss figure for theft of intellectual property that does not constitute goods, wares or merchandise capable of fair valuation. These problems — which flowed directly from the Government's attempt to stretch the EEA and the ITSPA to cover conduct to which they were never intended to apply — combined to result in an unjust conviction and sentence that must be reversed.

ARGUMENT

I. THE DISTRICT COURT ERRED IN FAILING TO DISMISS OR GRANT A JUDGMENT OF ACQUITTAL ON THE ITSPA COUNT.

The Second Count of the Indictment alleged that Aleynikov violated the ITSPA, which applies to one who "transports, transmits, or transfers in interstate or foreign commerce any goods, wares, merchandise, securities or money, of the value of $5,000 or more, knowing the same to have been stolen, converted or taken by fraud." 18 U.S.C. § 2314.[1] To state a violation of the ITSPA, the Government was required to allege and prove that Goldman's source code is a "good, ware or merchandise." The district court denied Aleynikov's motion to dismiss this charge for failure to state an offense. (SPA-1.) This Court reviews that denial and the district court's interpretation of a federal statute de novo. United States v. Pirro, 212 F.3d 86, 92 (2d Cir. 2000) (sufficiency of the Indictment); United States v. Fuller, 627 F.3d 499, 503 (2d Cir. 2010) (interpretation).

A. Intangible Property Such As Computer Source Code Is Not A Good, Ware Or Merchandise Within The Meaning Of The ITSPA.

The ITSPA does not define "goods, wares, or merchandise." The Third Circuit provided the leading construction of the phrase in United States v.

[1] In accordance with FRAP 28(f), the relevant portions of the ITSPA and the EEA are set forth in an Addendum to this brief.

Seagraves, 265 F.2d 876 (3d Cir. 1965), calling it "a general and comprehensive designation of such personal property or chattels as are ordinarily a subject of commerce." 265 F.2d at 880; see also United States v. Smith, 686 F.2d 234, 240-41 (5th Cir. 1982); Leonard B. Sand, et al., 3-54 Modern Federal Jury Instructions (Criminal), Instruction 54-23, comment. The Second Circuit adopted the Seagraves construction in United States v. Bottone, 365 F.2d 389, 393 (2d Cir. 1966) (Friendly, J.), and In re Vericker, 446 F.2d 244, 248 (2d Cir. 1971) (Friendly, J.).

Seagraves creates a two-part test for identifying a good, ware or merchandise within the meaning of the ITSPA. Smith, 686 F.2d at 241; 3-54 Modern Federal Jury Instructions – (Criminal), Instruction 54.03[2], comment. First, the item must be a tangible object in the nature of personal property or chattels. Smith, 686 F.2d at 241. As Judge Friendly explained in Bottone, "to be sure, where no tangible objects were ever taken or transported, a court would be hard pressed to conclude that 'goods' had been stolen and transported within the meaning of § 2314." Id. (quoting Bottone, 365 F.2d at 393). Second, Seagraves asks "whether the personal property or chattels are ordinarily a subject of commerce." Smith, 686 F.2d at 241. Even if an item constitutes personal property or chattels, it must be commonly bought and sold to come within the statute. See Vericker, 446 F.2d at 248.

Every court of appeals to consider the question has held that § 2314 does not apply to intellectual property, such as the source code here. In United States v. Brown, 925 F.2d 1301, 1307 (10th Cir. 1991), the Tenth Circuit affirmed the dismissal of an indictment charging a violation of §§ 2314 and 2315 based on interstate transportation of stolen source code. 925 F.2d at 1302. In Brown, the government did not claim the defendant took a physical object and admitted it could not prove he copied the code onto the company's hard disk or stole the hard disk containing it. Id. at 1305. Relying on Dowling v. United States, 473 U.S. 207 (1985),[2] the district court ruled that the source code was not the type of property contemplated by the ITSPA's phrase "goods, wares or merchandise." Id. at 1307. The Tenth Circuit agreed that purely intellectual property does not meet that definition and that "the computer program itself is an intangible intellectual property, and as such, it alone cannot constitute goods, wares, merchandise, securities or moneys which have been stolen, converted or taken within the meaning of §§ 2314 or 2315." Id. at 1307-08. The Brown court found that the

[2] The Supreme Court noted in Dowling: "[T]hese cases and others prosecuted under § 2314 have always involved physical 'goods, wares, [or] merchandise' that have themselves been 'stolen, converted or taken by fraud.' This basic element comports with the common-sense meaning of the statutory language: by requiring that the 'goods, wares [or] merchandise' be the 'same' as those 'stolen, converted or taken by fraud,' the provision seems clearly to contemplate a physical identity between the items unlawfully obtained and those eventually transported, and hence some prior physical taking of the subject goods." 473 U.S. at 216.

government's broader reading of the statute was unsupported by its language and that the rule of lenity compelled the narrower reading. Id. at 1309.

In United States v. Stafford, 136 F.3d 1109 (7th Cir. 1998), the Seventh Circuit considered a defendant's challenge to his conviction under § 2314 for transmitting "Comdata codes" interstate. As Judge Posner explained, the codes were a series of numbers truckers used to acquire cash while on the road by writing them on a "comcheck" and cashing them like a check. 136 F.2d at 1111, 1115. The government conceded the codes were not securities or money, but argued they were goods, wares or merchandise. Id. at 1114. The Seventh Circuit disagreed, holding they were merely information lacking any physical form:

> The sequences have no value in themselves; they are information the possession of which enables a person to cash a check. If this information comes within the statutory terminology of goods, wares, or merchandise, then so does a tip phoned by a crook in Chicago to one in San Francisco that by posing as a police officer he learned that Wells Fargo bank in San Francisco is poorly protected and so can be knocked off easily. . . . The Comdata code has to be "goods, wares, [or] merchandise" to come within the statute. It is none of those things.

Id. at 1115.

Similarly, the First Circuit recognized in United States v. Martin, 228 F.3d 1 (1st Cir. 2000), that "intangible, 'purely intellectual' property does not fall within the auspices of § 2314." Id. at 13 (quoting Brown). See also United States v. Kwan, No. 02 CR 241, 2003 U.S. Dist. LEXIS 22621, at *22 n.7 (S.D.N.Y. Dec. 17, 2003) ("'Goods, wares or merchandise'" means personal property which has some sort of tangible existence and which is ordinarily a subject of commerce."); Hallmark Cards, Inc. v. Monitor Clipper Partners, No. 08-0840, 2010 U.S. Dist. LEXIS 127820, at *23 (W.D. Mo. Dec. 2, 2010) ("The weight of authority establishes that [§ 2314 and 2315] apply to tangible property, not intellectual (or other intangible) property.")(citing Stafford and Brown).

Recently, in United States v. Batti, 631 F.3d 371 (6th Cir. 2011), the Sixth Circuit noted that subsection (a)(2)(C) was added to 18 U.S.C. § 1030 of the CFAA to "'protect against the interstate or foreign theft of information by computer'" because "Congress was concerned about the fact that electronically stored information 'is intangible, and it has been held that the theft of such information cannot be charged under more traditional criminal statutes such as [ITSPA].'" Id. at 376-77 (quoting S. Rep. No. 104-357, at *7). Thus, the Sixth Circuit explained that Congress criminalized accessing a computer without or in excess of authorization under the CFAA because the ITSPA did not criminalize the theft of intangible material — e.g., computer data and source code. (That the ITSPA does not apply may explain the Government's inclusion of a CFAA count in the Indictment in this case. That Count was properly dismissed because

Aleynikov had authorized access to every line of source code he downloaded, rendering the CFAA inapplicable.)

Here, as in Dowling, Brown and Stafford, there was no physical good, ware or merchandise that was allegedly stolen, converted or taken by fraud. Rather, the Government charged Aleynikov with stealing "Goldman's proprietary computer source code for Goldman's high-frequency trading business." (A-30.) This is "purely intellectual property" that does not meet the statutory definition of "goods, wares or merchandise." Brown, 925 F.2d at 1307-09.

As numerous courts and commentators have remarked, the ITSPA is a Prohibition-era statute that did not foresee — or attempt to prohibit — the transmission of intangible property. As the Third Circuit noted in United States v. Hsu, 155 F.3d 189 (3d Cir. 1998), the ITSPA "was drafted at a time when computers, biotechnology, and copy machines did not even exist," and case law casts serious doubt on whether the ITSPA applies to the type of intangible information involved in modern corporate espionage schemes. Id. at 194-95 & n.6 (quoting S. Rep. No. 104-359, at 10 (1996) and citing Dowling and Brown); see also Stafford, 136 F.3d at 1115 ("Given the statute's age . . . and wording, and the principle that the definition of federal crimes is a legislative rather than a judicial function — a principle that places some limits on creative judicial interpretations of federal criminal statutes . . . we don't think the first paragraph of section 2314 will stretch this far.") (citations omitted). Indeed, the impetus for the EEA was Congress's understanding that the ITSPA applied only to theft of physical items. H.R. Rep. No. 788, 104th Cong., 2d Sess. 6-7 (1996), *reprinted in* 1996 U.S.C.C.A.N. 4021, 4025 (testimony of then-FBI Director Louis Freeh explaining the need for the EEA because the ITSPA had been found inapplicable to intellectual property theft).

After Dowling and Brown, Congress could have amended the ITSPA to expressly encompass intangible property, just as it amended the mail-fraud statute to encompass intangible rights after McNally v. United States, 483 U.S. 350 (1987). It did not do so. Instead, it enacted a new statute — the EEA — to address economic espionage in the modern era. But, as the DOJ acknowledges, the EEA was "not intended to criminalize every theft of trade secrets for which civil remedies may exist under state law." U.S. Attorneys' Manual, § 9-59-100. In sum, because the "proprietary computer source code for Goldman's high-frequency trading business" is intangible, it does not constitute "goods, wares, merchandise" under the ITSPA. The Second Count of the Indictment should therefore have been dismissed.

B. The Government Failed To Produce Sufficient Evidence Of A Market For The Trade Secret Aleynikov Allegedly Stole.

The Second Circuit has interpreted the ITSPA's use of "goods, wares or merchandise" as "'a general and comprehensive designation of such personal property or chattels as are ordinarily a subject of commerce.'" Vericker, 446 F.2d at 248. "[T]he intrinsic commercial aspect of an object or thing is key to determining whether it is 'ordinarily a subject of commerce' and hence constitutes 'goods, wares, [or] merchandise' under § 2314." Kwan, 2003 U.S. Dist. LEXIS 22621, at *11. Absent an obvious market, the Government must prove the existence of one. Id. at *16-17; Vericker, 446 F.2d at 247-48. Therefore, under Vericker, the source code is not a "good" because it is intangible intellectual property *and* because it is not ordinarily the subject of commerce.

1. The Government Produced No Evidence Of A Market For The Source Code Aleynikov Allegedly Stole.

The Indictment alleged that Aleynikov stole and transported in interstate commerce not Goldman's entire Trading System but source code for specific components of its high-frequency trading business. (A-30.) Because such source code is "not clearly bought and sold in commerce," the Government was required to prove the existence of a market not for entire trading systems but for the source code itself to satisfy ITSPA. Kwan, 2003 U.S. Dist. LEXIS 22621, at *16-17. The Sixth Circuit recognized the importance of the distinction between a market for a finished product and one for a component thereof in United States v. Greenwald, 479 F.2d 320 (6th Cir. 1973), where the defendant was charged with stealing a formula for a chemical used in fire retardation products. Id. at 321. In finding that the formula constituted "goods, wares or merchandise," the court was careful to note that there was a market for the specific stolen component, not just the final product. Id. at 322. The court thus recognized that evidence of a market in the goods allegedly stolen — here, source code for discrete components of an HFT system — is indispensable.

At trial, however, the Government presented no evidence of a market for the source code for specific components of an HFT Trading System. Instead, it offered proof of Goldman's acquisition of Hull, which had an HFT system, in an effort to show a market for entire HFT trading systems. (A-165,191,192,253.) But, as Greenwald made clear, evidence of a market for entire trading systems does not establish a market for specific system components.

The Government also introduced evidence of off-the-shelf components created by third-party vendors for inclusion in trading systems. These items are specifically designed, marketed and sold as stand-alone components to be purchased and included in a company's trading system. (A-201-03.) Uncontroversial proof that a trading firm can purchase a stand-alone, generic component designed to be plugged into a trading system does not establish a market for source code for portions of a proprietary system. No witness testified to a market, legitimate or illicit, for the source code for custom-made, integrated components of a firm's proprietary trading system. Accordingly, Aleynikov was entitled to a judgment of acquittal on the ITSPA count.

2. The District Court Erred By Permitting The Government To Introduce Evidence Of A Market For Entire Trading Systems.

Knowing it could not prove a market for the HFT component source code at issue, the Government signaled its intention to instead elicit proof of a market for entire trading systems. Accordingly, Aleynikov moved pre-trial to preclude such evidence under F.R.E. 402 and 403. (A-10.) The district court's denial of that motion was erroneous. (A-58-59.) This Court reviews that decision for abuse of discretion. Old Chief v. United States, 519 U.S. 172, 174 n.1 (1997); United States v. Mercado, 573 F.3d 138, 141 (2d Cir. 2009).

Aleynikov argued in limine that evidence of a market for entire trading systems was irrelevant to the "goods, wares, [or] merchandise" element of the ITSPA because he was charged with stealing components of such a system. As evidence of a market for entire systems has no tendency to make the existence of a market for individual system components more or less probable, it was irrelevant and should have been excluded. See F.R.E. 401. Moreover, allowing evidence of a market for entire systems and Goldman's acquisition of Hull led the jury to believe, erroneously, that there was a market for what Aleynikov allegedly stole (individual components of a trading system) and that the Government had met its burden of proof on the "goods, wares, [or] merchandise" element of the ITSPA offense. The district court's denial of Aleynikov's motion to exclude evidence of a market for entire trading systems was erroneous and should be reversed.

II. THE DISTRICT COURT ERRED IN FAILING TO DISMISS OR GRANT A JUDGMENT OF ACQUITTAL AS TO THE EEA COUNT.

Aleynikov moved pre-trial to dismiss the EEA count because the trade secret it alleged he stole — source code for Goldman's HFT business — was not related to or included in "a product that is produced for or placed in interstate or foreign commerce," as required by 18 U.S.C. § 1832. (A-8[Dkt#45].) The district court's denial of that motion was erroneous and must be reversed. This Court reviews the sufficiency of the Indictment and the interpretation of a federal statute de novo. Pirro, 212 F.3d at 92; Fuller, 627 F.3d at 503.

A. The Trading System Is Not A Product Produced For Or Placed In Interstate Commerce.

The Indictment charged that Aleynikov stole a trade secret related to "Goldman's high-frequency trading business." (A-29.) As the district court held, "the relevant 'product' [for the Indictment's EEA offense] is the Trading System." (SPA-10.) Thus, the core of criminality alleged in the Indictment is clear: Aleynikov stole a trade secret — source code — included in or related to the Trading System.

But the EEA does not proscribe such conduct. To the contrary, the EEA proscribes only the theft of a trade secret included in or related to a product that is "produced for or placed in" interstate or foreign commerce. The Trading System does not meet that description because it was neither intended to be placed nor actually placed in the stream of commerce. Rather, the Indictment charges that the Trading System is a secret that Goldman carefully keeps from being distributed. (A-23-24.) A federal criminal statute that by its terms proscribes the theft of intellectual property included in or related to a product "produced for or placed in" the stream of commerce simply does not proscribe the theft of a trade secret related to or included in a Trading System that was purposefully *kept* from ever entering the stream of commerce.

The phrase "produced for or placed" in interstate commerce has been uniformly interpreted in various contexts; it means "produced with the intention of moving in interstate commerce" or "actually moving in interstate commerce." In Kim v. Park, No. 08 C 5499, 2009 U.S. Dist. LEXIS 51591 (N.D. Ill. June 16, 2009), for example, after noting that "[a]n employee may claim individual coverage under the [Fair Labor Standards Act (the "FLSA"), 29 U.S.C. § 201] if she is involved in ***the production of goods for interstate commerce***," id. at *10 (citing 29 U.S.C. §§ 206(a) & 207(a)(1))(emphasis supplied), the court explained that under the FLSA, an employer's "[g]oods are produced for interstate commerce 'where the employer intends, hopes, expects, or has reason to believe that the goods or an unsegregated part of them will move . . . in such interstate or foreign commerce.'" Id. (quoting 29 C.F.R. § 776.21(a)). Indeed, as Kim noted, a federal regulation promulgated under the FLSA expressly states, "Goods are produced for interstate commerce 'where the employer intends, hopes, expects, or has reason to believe that the goods or an unsegregated part of them will move . . . in such interstate or foreign commerce.'"[3] 29 C.F.R. § 776.21(a). See also United States v. Southern Advance Bag & Paper Co., 46 F. Supp. 105, 107-08 (W.D. La. 1942) ("The burden will rest upon the prosecution to prove beyond a reasonable doubt . . . that [the good] had been produced for interstate commerce in violation of the

[3] In declining to dismiss the EEA count, the district court deemed Aleynikov's reliance on the FLSA misplaced because the Act uses the phrase "production of goods for commerce" whereas the EEA uses the phrase "product produced for" commerce. (SPA-22.) The court reasoned that "goods" has a broader meaning than "product." (Id.) Whether that is true is doubtful but entirely irrelevant; the dispositive issue is the meaning of "produced [or production] for commerce," which is used in both statutes. Moreover, the regulation promulgated under the FLSA uses the exact same wording as the EEA.

statute, that is, . . . that at the time, it was intended to be shipped in such commerce."), aff'd, 135 F.2d 449 (5th Cir. 1943); Walling v. Comet Carriers, Inc., 151 F.2d 107, 109 (2d Cir. 1945); Velez v. Vassallo, 203 F. Supp. 2d 312, 329 (S.D.N.Y. 2002) (automobiles transported to parking garages "surely epitomize 'goods or materials that have been moved in or produced for' interstate commerce."). These cases make clear that, to demonstrate that a product was produced for or placed in interstate or foreign commerce, it is insufficient to show that the product has a "strong and substantial relation" to interstate or foreign commerce; rather, the product embodying the trade secret must itself be intended to move, or must actually move, in interstate or foreign commerce.

This understanding is consistent with the well-established use of the term "product." Black's Law Dictionary defines product as "[s]omething that ***is distributed commercially*** for use or consumption and that is usu[ally] (1) tangible personal property, (2) the result of fabrication or processing, and (3) an item that has ***passed through a chain of commercial distribution*** before ultimate use or consumption." Black's Law Dictionary 1328 (9th ed. 2009) (emphasis added). Section 19 of the Restatement (Third) Torts: Product Liability provides that "[a] product is tangible personal property ***distributed commercially*** for use and consumption." (emphasis added). See also Gorran v. Atkins Nutritionals, Inc., 464 F. Supp. 2d 315, 324-25 (S.D.N.Y. 2006) (adopting Section 19's definition of "product" to hold that intangible expressions in a diet book did not constitute a product for strict product-liability purposes).

This general, ordinary meaning of the phrase is equally applicable in the EEA context. See Flores-Figueroa v. United States, 129 S. Ct. 1886, 1891 (2009) ("The manner in which courts ordinarily interpret criminal statutes is fully consistent with th[e] ordinary English usage."). In fact, the EEA's legislative history reflects that when Congress enacted the statute, it was specifically concerned with preventing theft of trade secrets relating to commercially-distributed products. At the time, foreign governments were targeting U.S. firms, industries and the U.S. Government itself to steal critical information to provide "their own industrial sectors with a competitive advantage." S. Rep. No. 104-359, 1996 WL 497065 (Leg. Hist.), at *7 (quotation marks omitted). At the same time, U.S. companies faced the threat of theft by insiders. Id. In Senate Report No. 104-359, Congress cited examples of such thefts. Id. at *8-9. Each example involved the theft of trade secrets relating to products that were commercially distributed for use and consumption by the public, including air bags, microchips, software, MRI machines, and pharmaceuticals. None of Congress's examples related to items, like Goldman's Trading System, that were not — and were expressly intended never to be — sold, licensed, leased or otherwise distributed to the commercial public. Id.

The Department of Justice ("DOJ") has acknowledged that, to prove an EEA violation, the Government must prove that the stolen trade secret was included in or related to a product that is commercially distributed or intended for commercial distribution in interstate or foreign commerce. The DOJ's Prosecuting Intellectual Property Crimes Manual (3d ed. 2006) (the "IP Manual") instructs that "[t]o prove that the product was produced for interstate or foreign commerce, the government need only show the victim's intent to distribute the product or utilize the process under development for a product." IP Manual at 160-61. Elsewhere, the DOJ opines that "technical skills and know-how" will only constitute a product produced for or placed in interstate or foreign commerce when included in "a saleable, transportable good." Id. at 161. The DOJ has thus expressly recognized that the "produced for or placed in interstate or foreign commerce" element of an EEA charge requires a saleable, transportable product that is distributed or intended for distribution in interstate or foreign commerce.

Likewise, in interpreting the EEA, the U.S. Attorneys' Manual adopts the established, common sense meaning of "produced for or placed in interstate or foreign commerce." The Manual instructs that "[i]n cases where the trade secret is related to a product actually being manufactured and sold, this element is easily established by evidence of interstate sales" and that "in cases in which the trade secret is related to a product still being developed but that product will ultimately be sold in interstate commerce, prosecutors should establish this fact, and argue that it sufficiently meets this element." United States Department of Justice, United States Attorneys' Manual, tit. 9, Criminal Resource Manual at 1135.

Even if "produced for" could be read *in the abstract* as the district court read it — to mean "produced for the benefit of" — that phrase simply will not bear that interpretation *in the context of the EEA*, where it is part of the parallel construction "produced for or placed in interstate or foreign commerce." To the contrary, that phrase must be read as the DOJ and U.S. Attorney's Manual read it: to describe a product that is intended to move or actually moves in interstate commerce.

Here, the allegations of the Indictment established unequivocally that the Trading System is not currently, has not ever been, and will not ever be distributed commercially for public use or consumption. Accordingly, the EEA Count should have been dismissed for failure to state an offense.

B. The District Court's Interpretation Of The EEA Ignores The Statute's Plain Language, Violates Fundamental Principles Of Statutory Construction, And Alters The Balance Between State And Federal Prosecutions Of A Traditional State-Law Offense.

To sustain the Indictment's EEA Count and uphold Aleynikov's conviction, the district court reasoned that the Trading System was "produced for" interstate commerce because "the sole purpose for which Goldman purchased, developed, and modified the computer programs that comprise the Trading System was to engage in interstate and foreign commerce." (SPA-13.) The court thus found that the "produced for" element was satisfied because "the Trading System has a strong and substantial connection to interstate and foreign commerce." (SPA-25.)

But by no stretch of language can "produced for x" mean "has a strong and substantial connection to x." Despite the district court's insistence that its reading of "produced for . . . interstate or foreign commerce" comports with the "plain, ordinary meaning of those terms," (SPA-13), it provided no precedent — and none exists — interpreting "product produced for or placed in interstate commerce" to mean "product *not* produced for or placed in interstate commerce, but connected to it." Of course, no precedent exists for such a bizarre reading of "produced for x." Rather than explain how and why the Trading System could ever be said to constitute a "product produced for or placed in interstate or foreign commerce," the court ignored that statutory requirement, arguing that the only "plausible explanation" for its inclusion in the statute was that "Congress needed to supply a basis for federal jurisdiction to § 1832." (SPA-18.) The district court apparently reasoned as follows: because Congress had the constitutional power to render the theft of trade secrets a federal crime provided there was a sufficient nexus between that crime and interstate commerce, it should be understood to have done so notwithstanding the actual language of the statute. The district court found that given the legislative history reflecting Congress's belief that the theft of trade secrets was a problem requiring a "comprehensive tool for law enforcement personnel" (SPA-13-15), it could give the EEA's jurisdictional element an interpretation so broad as to impose virtually no limitation on the types of trade secret theft — a traditional state-law crime — that can be prosecuted federally.

But a jurisdictional element is hardly trivial. To the contrary, it reflects the importance of the constitutional limits on the national government — the executive and the judiciary as well as the legislature. In passing the EEA in 1996, Congress did not seek to test the limits of its constitutional power, nor even exercise it to the fullest. If it had, it would have used the well-known and well-worn language of "affecting commerce," or tracked the "substantially-affecting-commerce" language of United States v. Lopez, 514 U.S. 549, 558 (1995), decided one year earlier. Instead, it expressly limited the reach of the EEA to the theft of a trade secret included in or related to a "product that is produced for or placed in interstate or foreign commerce." 18 U.S.C. § 1832(a). Venturing where Congress declined to tread, the executive suggested and the district court embraced an interpretation of that language that tests the limits of the nation's power under the Commerce Clause as defined in Lopez and United States v. Morrison, 529 U.S. 598 (2000).

In passing the EEA, Congress did not intend to regulate all things that are made for use in, for the benefit of, or to enable, interstate commerce; its careful use of the phrase "produced for or placed in interstate or foreign commerce" belies such intent. But to salvage the defective Indictment and avoid the constitutional implications of its own broad construction, the district court engrafted a requirement of a "strong and substantial connection" to interstate commerce found nowhere in the statute. (SPA-25.) That is not an element of the offense as defined by Congress and, indeed, bears no resemblance to any element defined by Congress.

While the district court explains its willingness to adopt a tortured reading of the "produced for" requirement based on the fact that the product at issue in this case — the Trading System — has a "strong and substantial connection" to interstate commerce, it is improper to evaluate an Act of Congress under the Commerce Clause on an as-applied basis, permitting conviction in cases where there happens to be a sufficient connection to interstate commerce but finding the statute unconstitutional as applied to cases lacking such a connection. An Act of Congress challenged under the Commerce Clause stands or falls as a whole. In keeping with this principle, the gun-free school zone conviction in Lopez was not salvaged by proof that Lopez only brought the gun to school to sell it:

> That Alfonzo Lopez brought his gun to school for the purpose of making a sale was irrelevant to the Lopez

> Court, precisely because the test for whether a law is constitutional under the Commerce Clause is not dependent on the actual activity of the defendant. As-applied challenges, however, almost by definition review not the underlying law or regulation but rather the activity of the individual defendant. Since Lopez and Morrison are concerned solely with the law and not with each particular defendant's conduct, as-applied challenges have no place in this rubric."

Paul Tzur, I Know Economic Activity When I See Economic Activity, 94 J. Crim. L. & Criminology 1105, 1131-32 & n.156 (Summer 2004); See also Jonathan Adler, Is Morrison Dead? Assessing a Supreme Drug (Law) Overdose, 9 Lewis & Clark L. Rev. 751 (2005). Beyond ignoring the plain meaning of the language of the EEA, the district court's broad interpretation of that statute's commerce requirement violates fundamental principles of statutory construction and alters the delicate balance between state and federal prosecutions of a traditional state-law offense. First, the district court's reading ignores the settled canon that statutory language may not be read in the abstract, but must be read in context. As the Supreme Court explained in considering the meaning of a statutory nondiscrimination clause in Davis v. Michigan Dept. of Treasury, 489 U.S. 803 (1989), "[a]lthough the State's hypertechnical reading of the nondiscrimination clause is not inconsistent with the language of that provision examined in isolation, statutory language cannot be construed in a vacuum. It is a fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme." Id. at 809. See also Samantar v. Yousuf, 130 S. Ct. 2278, 2289 (2010) ("'[W]e do not . . . construe statutory phrases in isolation; we read statutes as a whole'") (quoting United States v. Morton, 467 U.S. 822, 828 (1984)); Jones v. United States, 527 U.S. 373, 389 (1999) ("Statutory language must be read in context and a phrase 'gathers meaning from the words around it.'") (quoting Jarecki v. G. D. Searle & Co., 367 U.S. 303, 307 (1961); Best Van Lines, Inc. v. Walker, 490 F.3d 239, 248 n.11 (2d Cir. 2009) (noting "the 'cardinal rule' of statutory construction 'that a statute is to be read as a whole, since the meaning of statutory language, plain or not, depends on context.'"). Thus, whether judged against the plain language of the EEA or reviewed under settled principles of statutory construction, the district court's reading of the EEA's produced-for-interstate-commerce requirement cannot stand.

The district court's reading also contravenes the core principle that unless Congress conveys its purpose to do so clearly, it will not be deemed to have significantly altered the federal-state balance in the prosecution of crimes. In Jones v. United States, 529 U.S. 848 (2000), the Supreme Court rejected the precise approach endorsed by the district court here: ignoring the plain, narrow wording by which Congress expressed the nexus between a traditional state-law crime and interstate commerce in a federal criminal statute in favor of a far broader reading unsupported by the statute's text. At issue in Jones was the scope of the federal arson statute, 18 U.S.C. § 844(i), which makes it a federal crime "to damage or destroy, 'by means of fire or an explosive, any . . . property used in interstate or foreign commerce or in any activity affecting interstate or foreign commerce.'" Id. at 850 (quoting 18 U.S.C. § 844(i)). Jones argued that "§ 844(i), when applied to the arson of a private residence, exceeds the authority vested in Congress under the Commerce Clause." Id. at 851-52. The Government offered three bases for the subject residence's connection to interstate commerce, arguing the homeowner "used" the Indiana dwelling (1) to obtain a mortgage from an Oklahoma lender; (2) to obtain insurance from a Wisconsin insurer; and (3) to receive natural gas from outside Indiana. Id. at 855.

Rejecting the Government's tortured reading of the statute's jurisdictional requirement — that the object of the arson be a building "used in" an activity affecting interstate commerce — the Supreme Court explained, "[t]hat qualification is most sensibly read to mean active employment for commercial purposes, and not merely a passive, passing, or past connection to commerce." Id. The Court explained that Congress had intentionally limited the statute's reach "to activities 'in commerce,'" rather than (as it could have) "invoking Congress' full power over activity 'affecting . . . commerce'" and thus giving the statute wider application. Id. at 856. The Court reasoned that the Government's broad interpretation of the statute's interstate commerce language would eviscerate

Congress's decision not to extend the arson statute to the fullest possible extent of the Commerce Clause. Id. at 857. Such an application, the Court concluded, would contradict the principle that "'[j]udges should hesitate . . . to treat statutory terms in any setting [as surplusage], and resistance should be heightened when the words describe an element of a criminal offense." Id.; see also Circuit City Stores v. Adams, 532 U.S. 105, 118 (2001) (holding that in the context of the Federal Arbitration Act, "[t]he plain meaning of the words 'engaged in commerce' is narrower than the more open-ended formulations 'affecting commerce' and 'involving commerce.'"); United States v. American Bldg. Maint. Indus., 422 U.S. 271, 279-80 (1975) (holding that Congress did not intend to legislate to the full extent of its commerce power in enacting an amendment to § 7 of the Clayton Act because it employed the phrase "engaged in commerce," a phrase that had long been understood to indicate a limited assertion of federal jurisdiction.) As the Supreme Court reiterated last term in Federal Commc'n Comm'n v. AT&T Inc., 131 S. Ct. 1177, 1184 (2011):

> [C]onstruing statutory language is not merely an exercise in ascertaining "the outer limits of [a word's] definitional possibilities." [Dolan v. Postal Service, 546 U.S. 481, 486 (2006)]. AT&T has given us no sound reason in the statutory text or context to disregard the ordinary meaning of the phrase "personal privacy." . . . [Nken v. Holder, 129 S.Ct. 1749, 1756 (2009)] ("statutory interpretation turns on 'the language itself, the specific context in which that language is used, and the broader

> context of the statute as a whole'" (quoting Robinson v. Shell Oil Co., [519 U.S. 337, 341 (1997)]).

Id.

Here, the EEA clearly defines the circumstances in which the theft of a trade secret becomes a federal offense: when the trade secret is related to or included in "a product produced for or placed in interstate or foreign commerce." 18 U.S.C. § 1832(a).[4] The "produced for . . . interstate or foreign commerce" language of the EEA is similar to the "engaged in commerce" language in Circuit City and the "in commerce" language in American Building in that Congress's use of that limiting language reflects a purposeful decision to limit the statute's invocation of the commerce power. The district court's interpretation of "produced for" as meaning "produced for the purpose of engaging in" interstate commerce — a construction at least as broad as the "affecting commerce" and "involving commerce" language, which has been read to invoke the full breadth of the Commerce Clause — ignores Congress's decision to invoke more limited language, and would render the phrase "placed in" mere surplusage.

[4] Significantly, § 1832's requirement that the trade secret be "included in or related to a product produced for or placed in interstate or foreign commerce" does not appear in § 1831, the provision of the EEA that proscribes foreign economic espionage. 18 U.S.C. § 1831. Where "Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion." Russello v. United, 464 U.S. 16, 23 (1983).

As the Jones Court explained, "[w]e have cautioned . . . that 'unless Congress conveys its purpose clearly, it will not be deemed to have significantly changed the federal-state balance' in the prosecution of crimes. . . . To read § 844(i) as encompassing the arson of an owner-occupied private home would effect such a change, for arson is a paradigmatic common-law state crime." 529 U.S. at 858 (citing United States v. Bass, 404 U.S. 336, 349 (1971)). This manner of interpreting criminal statutes is well-established. Bass, 404 U.S. at 349 ("Congress has traditionally been reluctant to define as a federal crime conduct readily denounced as criminal by the States."); Rewis v. United States, 401 U.S. 808, 812 (1971) (rejecting an expansive interpretation of the Travel Act that "would alter sensitive federal-state relationships [and] could overextend limited federal police resources."); United States v. Perrotta, 313 F.3d 33 (2d Cir. 2002) (holding that the jurisdictional nexus in the Hobbs Act transformed certain robberies and extortions into federal offenses, but rejecting the Government's broader reading that would impinge on a traditional area of state interest); United States v. Mennuti, 639 F.2d 107, 113 (2d Cir. 1981) ("We are not holding that Congress could not, with appropriate findings and language, make it a federal crime to do what appellees were charged with doing here. We hold only that Congress did not choose, as the Government contends, to make nearly every bombing in the country a federal offense.")

Here, the district court's interpretation of the EEA would drastically alter the state-federal balance regarding the prosecution of a quintessentially state-law crime for the same reason the Government's statutory interpretations did so in Jones, Mennuti and Perrotta. Theft of trade secrets, like arson and extortion, is a quintessential state-law crime. More than half the states have criminalized some form of theft of trade secrets, including New York (where Aleynikov worked), New Jersey (where he lived), and Illinois (where Teza is located).[5] But the district court's broad interpretation of the EEA commerce element would destroy the balance between state and federal criminal prosecutions of trade secrets by making virtually every theft of a trade secret a federal crime, despite Congress's

[5] Thirty-four states have expressly criminalized some form of theft of trade secrets. See Ala. Code §13A-8-10.4; Alaska Stat. § 11.46.740(a)(4),(b),(c); Ariz. Rev. Stat. Ann. §§ 13-1801(12),(13), 13-1802; Ark. Stat. Ann. § 5-36-107; Cal. Penal Code § 499c; Colo. Rev. Stat. §§ 18-4-408; Del. Code Ann. tit. 11, §§ 841, 857(6); Fla. Stat. Ann. §§ 815.04(3)(b),(4), 812.081; Ga. Code Ann. § 16-8-13; Idaho Code §§ 18-2402(8), 2403; 720 ILCS 5/15-1, 5/16-1; Ind. Code Ann. §§ 35-41-1-23(a)(9), 35-43-4-2, 35-43-4-3; La.R.S. §§ 14:73.1(10), 14:73.2(A)(2), (B); Mass. Gen. Laws Ann. ch. 266 § 30(4); Me. Rev. Stat. Ann. tit. 17A, §§ 352(1)(F), (4), 353; Md. Crim. Law Code §§ 7-101(i)(2)(xii), 7-104; Minn. Stat. § 609.52(1), (6), (8), 609.52(2); Miss. Code Ann. §§ 97-45-1(p), 97-45-9(1)(b),(2); Mont. Code Ann. §§ 45-2-101(61)(j), (62), 45-6-301; Nev. Rev. Stat. §§ 205.08255, 205.0828, 205.0832; N.H. Rev. Stat. Ann. §§ 637:2(I), 637:3; N.J. Stat. Ann. §§ 2C:20-1(g)-(i), 20-3; N.Y. Penal Law §§ 155.00(1), (4), (6), 155.30(3), 165.07; N.C. Gen. Stat. § 14-75.1; Ohio Rev. Code Ann. §§ 2901.01(10), 2913.02; Okla. Stat tit. 21, § 1732; Or. Rev. Stat. § 164.377(1)(i),(2)(c); 18 Pa. Cons. Stat. § 3930; S.C. Code Ann. § 39-8-90; Tenn. Code Ann. § 39-14-138; Tex. Penal Code § 31.05; Utah Code Ann. §§ 76-6-702(6), (7), 703(1)(e)(iii), 76-6-401(1), 76-6-404; Wis. Stat. § 943.205; Wyo. Stat. §§ 6-3-501(a)(xi), 6-3-502(a)(iii),(b).

unambiguous intent to federalize only a subset of such conduct. Congress certainly chose to alter the federal/state balance by enacting the EEA, but it did so in a very specific fashion, federalizing only the theft of trade secrets "related to or included in a product that is produced for or placed in interstate or foreign commerce."

Because the district court's interpretation of the EEA second-guesses Congress on that critical issue, it must be rejected.

C. The Government Failed To Adduce Evidence That Aleynikov Intended, Or Had The Ability, To Injure Goldman.

The Government failed to adduce any evidence that Aleynikov intended or knew that his conduct would injure Goldman, as required by the EEA. 18 U.S.C. § 1832 (requiring that the defendant "intend[] or know[] that the offense will injure any owner of that trade secret"). This Court reviews de novo the denial of a Rule 29 motion regarding the sufficiency of the evidence. United States. v. Bullock, 550 F.3d 247, 251 (2d Cir. 2008). In reviewing the sufficiency of the evidence, this Court adheres to the principle that negative inferences from disbelieved testimony alone are insufficient to support a conviction. United States v. Eisen, 974 F.2d 246, 260 (2d Cir. 1992); United States v. Marchand, 564 F.2d 983, 986 (2d Cir. 1977); Dyer v. MacDougall, 201 F.2d 265, 269 (2d Cir. 1952).

Many trade-secret cases involve evidence of intent to cause competitive harm. See, e.g., United States v. Martin, 228 F.3d 1, 12 (1st Cir. 2000) ("Martin

…considered the possibility of starting a competing veterinary lab, and had asked Camp to think…about ways to compete with tests that IDEXX manufactured.") Indeed, there was ample evidence that Samarth Agrawal, sentenced weeks before Aleynikov for stealing source code for an HFT system from SocGen, intended to use the code to cause SocGen competitive harm. United States v. Agrawal, 10 Cr. 417 (Feb. 28, 2011). Agrawal brought source code for two SocGen HFT programs to a new firm where he planned to take advantage of the precise arbitrage opportunities SocGen was targeting, and discussed the details of that code with his new employer. (A-575.)

Although there was no such evidence in this case, the district court found that there was "ample evidence that Teza could have benefitted immensely from access to Goldman Sachs' proprietary source code." (SPA-67.) To the contrary, even if the evidence could support the conclusion that Teza would have benefitted from Goldman's code, there is no evidence that Aleynikov knew or intended that Goldman would be injured by such use. The court's holding rests on speculation and negative inference — neither of which can substitute for proof.

The district court found that: (i) Teza was preparing to enter the HFT business; (ii) "the components Aleynikov stole were critical to the design and operation of any high frequency trading system;" and (iii) Malyshev made millions of dollars trading options for Citadel. (SPA-72.) The court erroneously concluded from these facts that the jury was entitled to find that Malyshev planned to "resume competing directly with Goldman Sachs." (Id.)

But Malyshev made clear that he never considered Goldman a competitor. (A-321.) Malyshev did not hire Aleynikov to bring Goldman's code to Teza; did not have his trading strategy developed at the time of Aleynikov's arrest; had no need or desire for Goldman's code; and would not have taken Goldman's code if offered him. (A-311,315,320-22,324-26.) The Government's successful argument to the jury was not that Aleynikov stole Goldman's system to compete with Goldman, but that he stole a portion of that system to make it easier to perform his job at Teza. (A-536.)

Were Malyshev to deploy the exact same strategy as Goldman at the exact same time, perhaps Teza could have done Goldman economic harm. But there was no evidence Aleynikov ever intended or knew that remote result would occur. Indeed, the proofs showed that Aleynikov had neither the ability nor the responsibility to develop Teza's trading strategy. Aleynikov was responsible for making systems run fast. It was not his job to develop the "analytics platform" or "trading strategies" that Malyshev encouraged his team to develop within six months. (A-681.)

The error in the district court's reasoning proceeds from its misunderstanding of HFT and its mistaken intuition that investment banking giant Goldman was a leader in that field as well. Reading the district court's opinion, one would assume that HFT was a monolith in which all participants compete against one another, and in which everyone would love to have Goldman's secrets. To the contrary, HFT is a method of executing trades, not a strategy in and of itself, and by comparison to Malyshev, Goldman was not very good at it. (A-321-22.) Only where two HFT firms are trying to execute the exact same trade at the exact same time is there a potential for competitive harm. (A-260-61.) Thus, if a programmer stole algorithms relating to a particular trading strategy with the intent to implement that strategy at another firm, there would be intent to harm. If, by contrast, two firms used identical platforms but one's strategy related to crude-oil options while another's related to high-technology stocks, competitive injury would be impossible. Moreover, the evidence showed that Goldman's HFT strategies were constantly changing to adapt to new market conditions and opportunities. (A-181.)

While Aleynikov's theft of portions of the Trading System supports the Government's theory that he intended to benefit himself by making his job at Teza easier, the evidence did not support a finding that Aleynikov intended to injure Goldman (or cause it economic loss). Every Government witness on this topic testified that unless a thief generated the same prices and trades as Goldman, any argument that Goldman could suffer pecuniary loss from the theft of its source code would be pure speculation. When asked how Goldman could be affected if an individual had access to its code, knew how it worked and intended to deploy it, Government witness Paul Walker testified: "[i]f . . . someone were generating the same prices and trades as we were, we would at least have the possibility of losing market share, having diminished ability to make money in the business." (A-167.) Speculation that Goldman would have "the possibility of losing market share" because its software would enable a competitor to compete does not confer an "intent to injure" upon Aleynikov. The testimony made clear that the theoretical pecuniary harm the Government's witnesses envisioned could only occur if the individual employing Goldman's code was competing for the same investment opportunities in the same securities at the same time.

The Government's expert, Benjamin Van Vliet, confirmed that unless a firm traded options, it could only gain a competitive advantage if it had the trading infrastructure of a competitor and used the same or a substantially similar strategy. (A-260-61, 267.) Despite this acknowledgement of the only scenario in which Goldman could have suffered pecuniary harm from Aleynikov's downloads, the Government introduced no evidence as to Goldman's trading strategies, and the only evidence of Teza's strategies was that none existed for some time after

Aleynikov's alleged theft. (A-327.) As a result, there was no evidence that Aleynikov could have intended that Goldman suffer an economic loss by his use of its proprietary source code in building Teza's system.

When arrested, Aleynikov admitted concealing his downloads because they violated Goldman's confidentiality policies but made clear that he never intended to harm Goldman. (A-404-05.) Thus, although the district court interpreted those concealment efforts as an admission of his intent to harm Goldman, Aleynikov's uncounseled explanation of them was far more rational. Without proof that Aleynikov took Goldman's code with the intent to injure Goldman or knew that his actions would injure Goldman, the Government failed to satisfy its burden.

III. THE DISTRICT COURT'S ERRONEOUS REFUSAL TO STRIKE THE DOWNLOADED DOCUMENTS AND ANY RELATED TESTIMONY RESULTED IN A CONSTRUCTIVE AMENDMENT OF THE INDICTMENT THAT WARRANTS A NEW TRIAL.

On December 1, 2010, the Government offered for admission, through its witness Adam Schlesinger, Government exhibits 108-A, 108-B, 108-D, 108-E, 108-F, 108-G, 108-H, 108-I, 108-J, 108-K and 108-L (the "Downloaded Documents") (A-591-667), which were documents describing various computer systems and components that Aleynikov downloaded. (A-204-207, 212-14.) None of the Downloaded Documents contained source code for the Trading System.

After Schlesinger described and authenticated the Downloaded Documents, they were received in evidence. (Id.) At that time, it appeared those documents were being introduced for the marginally-relevant purpose of explaining the computer source code that was the subject of the Indictment. At the next trial session, however, the Government revealed a different purpose for the Downloaded Documents. During the direct testimony of Benjamin Van Vliet, the prosecution elicited his opinion as to the manner in which a competitor could use the information contained in the Downloaded Documents to gain a competitive advantage. (A-265.)

But the Indictment did not charge Aleynikov with stealing the Downloaded Documents. (A-20-33.) To the contrary, the only alleged trade secret Aleynikov was charged with stealing was source code for Goldman's Trading System. (A-29-30.) Accordingly, Aleynikov moved to strike the Downloaded Documents and any testimony related to them (and requested a limiting instruction regarding those exhibits) because reliance on them would constitute constructive amendment of the Indictment. (A-15[Dkt#116].) The court denied that application, reasoning that (1) the Indictment was clear as to what Aleynikov was charged with stealing; and (2) the Download Documents were "highly relevant and probative" because they were stolen with and "integral to the efficient use of" the source code. (A-308.) The district court also failed to give, in form or substance, Aleynikov's requested limiting instruction.

Thereafter, the prosecution relied heavily on the Downloaded Documents. The Government's forensic computer expert (who was not an HFT programming expert) testified extensively about the documents, opining as to their purported usefulness to Aleynikov in building a trading system at Teza. (A-433-34, 449-54.) The Government then asserted during closing that those documents would have been critical to efforts to use the stolen source code to construct a competing system at Teza. (A-520-21.) The district court's refusal to strike the Downloaded Documents or give an appropriate limiting instruction and its denial of Aleynikov's motion for a new trial on that ground were erroneous.

This Court reviews constructive amendment issues de novo, United States v. McCourty, 562 F.3d 458, 469 (2d Cir. 2009), and the district court's error in refusing to give a limiting instruction for harmless error, United States v. Zagari, 111 F.3d 307, 318 (2d Cir. 1997). Because the district court's refusal to strike the Downloaded Documents and the Government's pervasive use of those exhibits leave grave doubts about the basis for Aleynikov's conviction, it cannot stand. Mercado, 573 F.3d at 148-49.

A. The District Court Erred By Not Striking The Downloaded Documents Because The Government's Reliance On Them Violated The Grand Jury Clause Of The Fifth Amendment.

As explained in United States v. Clemente, 22 F.3d 477, 482 (2d Cir. 1994), "[a]n unconstitutional amendment of the indictment occurs when the charging terms are altered, either literally or constructively." This takes place when "either the proof at trial or the trial court's jury instructions so altered an essential element of the charge that, upon review, it is uncertain whether the defendant was convicted of conduct that was the subject of the grand jury's indictment.'" United States v. Salmonese, 352 F.3d 608, 620 (2d Cir. 2003); United States v. Rigas, 490 F.3d 208, 225-26 (2d Cir. 2007)) ("The issue . . . is whether the deviation between the facts alleged in the indictment and the proof adduced at trial undercuts the[] constitutional requirements [for an indictment].")

Where the trial evidence broadens the basis for conviction on an essential element of the crime, it undercuts the constitutional requirement for an Indictment. United States v. Patino, 962 F.2d 263, 265 (2d Cir. 1992) (citing United States v. Miller, 471 U.S. 130, 144-45 (1985)). Such a constructive amendment constitutes a per se violation of the Grand Jury Clause of the Fifth Amendment 'that requires reversal even without a showing of prejudice to the defendant.'" United States v. Wozniak, 126 F.3d 105, 109 (2d Cir. 1997) (citation omitted). Thus, in Wozniak, this Court reversed a conviction for possession of controlled substances with intent to distribute because the indictment specifically charged the defendant with having engaged in cocaine and methamphetamine transactions but the prosecution introduced proofs of the defendant's involvement in uncharged marijuana transactions. Id. at 109-11. In reversing, the Court opined that the defendant "well may have been surprised by the introduction of evidence of narcotics other than what was alleged in the indictment." Id. at 111.

Likewise here, the Government's introduction of the Downloaded Documents; its reliance on substantial expert testimony regarding the use to which Aleynikov could put those documents; and its explicit argument in summation that those documents would have been critical to efforts to use the source code to construct a competing trading system all resulted in a constructive amendment that broadened the Indictment and a per se violation of the Fifth Amendment. The jury was misled to believe that the Downloaded Documents were additional trade secrets that Aleynikov could be found guilty of stealing and transporting interstate. There is thus no way of knowing whether his conviction was appropriately based on the theft and transportation of source code, as charged in the Indictment, or inappropriately based on the theft and transportation of the Downloaded Documents, which was not charged. See Salmonese, 352 F.3d at 621.

B. The District Court Erred By Not Giving A Limiting Instruction Regarding The Downloaded Documents.

Aleynikov requested a limiting instruction explaining that the Indictment did not charge him with stealing and transporting the Downloaded Documents and, as a result, the jury could not base a finding that he violated the EEA or ITSPA on those documents (A-15[Dkt#117].) The district court never gave that instruction, a particularly damaging error given that the Government elicited expert testimony about the usefulness of the Downloaded Documents and emphasized them in closing.

The district court did not have discretion to refuse Aleynikov's request for such an instruction. As F.R.E. 105 provides, "[w]hen evidence which is admissible . . . for one purpose but not admissible . . . for another purpose is admitted, the court, upon request, shall restrict the evidence to its proper scope and instruct the jury accordingly." The Government argued that the Downloaded Documents were admissible for the limited purpose of showing intent and did not constitute the source code that the Indictment charged Aleynikov with having stolen. (A-308.) The district court was thus required to provide an appropriate limiting instruction after Aleynikov requested one. <u>See</u> <u>Zagari</u>, 111 F.3d 307, 318 (2d Cir. 1997). The court's failure to do so was not harmless error as it resulted in an unconstitutional amendment of the Indictment. Aleynikov is therefore entitled to a new trial.

IV. THE DISTRICT COURT ERRED BY ENHANCING ALEYNIKOV'S SENTENCE BASED ON A SPECULATIVE LOSS AMOUNT AND BY IMPOSING A SENTENCE THAT WAS NEITHER REASONABLE NOR CONSISTENT WITH SENTENCES IMPOSED IN SIMILAR CASES.

The Court reviews a district court's sentencing decisions for reasonableness. United States v. Fernandez, 443 F.3d 19, 26 (2d Cir. 2006). This standard encompasses both procedural and substantive review. United States v. Cavera, 550 F.3d 180, 189 (2d Cir. 2008) (en banc). A court commits procedural error when it makes a mistake in its Guidelines calculation or rests its sentence on a clearly erroneous finding of fact. Cavera, 550 F.3d at 190. Substantive review concerns the length of the sentence imposed in light of the § 3553(a) factors. United States v. Villafuerte, 502 F.3d 204, 206 (2d Cir. 2007). This Court will set aside a district court's substantive sentencing determination when it "cannot be located within the range of permissible decisions." Cavera, 5550 F.3d at 189. The Court reviews the district court's legal conclusions (including its interpretation and application of the Guidelines) de novo and its factual findings for clear error. Villafuerte, 502 F.3d at 207.

Here, the district court sentenced Aleynikov to 97 months in prison — a sentence driven largely by an unsubstantiated finding that his offense conduct involved an intended loss amount of $7-$20 million. As a threshold matter, for the same reason that Aleynikov cannot be said to have intended to injure Goldman, he cannot be said to have intended a loss under the Guidelines. Moreover, the district court's loss calculation was speculative and ambiguous. Even if it was accurate, which it is not, that unsupported calculation grossly overstated the criminality of Aleynikov's offense, and led to a sentence dramatically harsher than that imposed on a similarly-situated defendant.

A. Aleynikov's Offense Conduct Did Not Involve Any Actual Or Intended Loss.

The district court committed procedural error by failing to properly calculate the applicable Guidelines range. Under USSG § 2B1.1(b), a defendant's offense level is increased based on the loss that attended the crime. United States v. Rizzo, 349 F.3d 94, 98 (2d Cir. 2003). Subject to certain exclusions, the amount of loss is "the greater of actual loss or intended loss." USSG § 2B1.1, cmt. n.3(A). "Actual loss" is the "reasonably foreseeable pecuniary harm that resulted from the offense." Id., cmt. n.3(A)(i). "[I]ntended loss" is the pecuniary or economic harm that was intended to result from the offense. Intended loss refers "to the defendant's subjective expectation, not to the risk of loss to which he may have exposed his victims." United States v. Confredo, 528 F.3d 143, 152 (2d Cir. 2008) (citation omitted). The sentencing court must make a reasonable estimate of the loss. USSG § 2B1.1, cmt. n.3(C). Here there was no evidence that Goldman suffered any actual economic loss, as the Government conceded at sentencing. (A-

555.) Because there was also no evidence to support any intended loss, the district court erred by applying a sentencing enhancement for loss amount under USSG § 2B1.1(b)(1).

Despite this lack of evidence, the district court undertook to calculate intended loss by reference to the application notes to the Guidelines, which list other factors to consider in estimating loss. USSG § 2B1.1, cmt. n.3(C). Those factors, however, facilitate estimating a loss when the evidence establishes that one exists. Where, as here, there is no actual or intended loss, those factors do not apply. United States v. Dickler, 64 F.3d 818, 826 (3d Cir. 1995).

The district court focused on three facts to support its \$7-\$20 million loss calculation. First, the court noted that Goldman's high-frequency trading business generated approximately \$300 million in net pretax income in 2009. (A-559.) The court did not, however, explain how this \$300 million constituted a loss intended by Aleynikov. There was certainly no evidence to suggest that Teza's use of the code downloaded by Aleynikov would have caused a diminution in that income.

Second, the Court adverted to the \$500 million Goldman paid to acquire Hull in 1999. (Id.) But Goldman's purchase of Hull does nothing to support the district court's loss estimate. Goldman acquired that entire company, complete with human capital, and there was no evidence as to what portion of the purchase price — if any — was paid for software. (A-181.) Apparently, the argument is just this broad: because Goldman paid a lot of money for a company that owned an old version of its Trading System, a component part of a different system is today worth a lot of money. Such broad reckoning has no place in a Guidelines sentence. It surely will not support the court's conclusion that Aleynikov intended to cause Goldman a $7-$20 million loss.

Third and finally, the district court turned to the salaries of programmers in Aleynikov's group. While development cost may approximate intended loss in some cases, there was no evidence from which Goldman's cost could be reasonably estimated. Indeed, it was undisputed that the code Aleynikov downloaded contained substantial open source material which, by definition, is owned by the public. (A-474.) The Government's own witnesses did not know the extent to which Goldman's allegedly proprietary files incorporated open source software. (A-176, 346, 385-86.) Thus, there is no evidentiary basis for separating the proprietary from the open source materials, then attributing a cost of development to the proprietary materials. But that is precisely what the district court purported to do.

Additionally, because the parties were not given access to the entire Trading

System — despite Aleynikov's intensive pretrial effort to subpoena it — there was no evidentiary basis to determine what portion of the entire system Aleynikov took. See United States v. Four Pillars Enter., 253 Fed. Appx. 502, 504-05 (6th Cir. 2007) (noting that although defendant stole sixty adhesive formulas, the government failed to prove the development cost of all but one of those formulas, and it was therefore appropriate for the district court to limit the loss amount to the development cost of that formula). No proof was adduced at trial that would support calculating loss in this manner beyond the level of rank speculation, which is not permissible. United States v. Comer, 93 F.3d 1271, 1285 (6th Cir. 1996) ("[A] court may not attribute a loss to a defendant based on mere speculation."). There was no evidence regarding how many of the 25 Goldman programmers referenced at trial worked on the downloaded components, so there was no means of determining the actual development costs of those isolated components.

In this case, the district court's use of Application Note 3(C)(ii) to estimate the loss was misguided because there was no evidence that it would approximate Aleynikov's subjective expectation of loss. Confredo, 528 F.3d at 152. Ultimately, the guidance offered by the Guidelines commentary for calculating loss is inapposite in this context for the same reason that the EEA and ITSPA charges themselves were not well made. The harm that normally attends the theft of a trade secret related to "a product produced for or placed in interstate commerce" is the sale of competing goods. In such a case, intended loss may be reasonably, if not precisely, estimated by calculating the cost of developing the relevant technology. In a case in which no competing product will be produced for or placed in commerce based on the stolen trade secret, estimating development cost does not reasonably approximate the harm caused by the theft. It was this insight, perhaps, that led Judge Rakoff to decline using the "loss" calculation when sentencing Samarth Agrawal.

Even if there were a basis to support the Government's loss estimate, which there is not, the 20-point enhancement applied by the district court grossly overstated the criminality of Aleynikov's offense. (PSR, ¶26 ("However, we [U.S. Probation] believe that the estimation of loss grossly overstates the intent of the theft.")) As the Probation Office noted, "the applicable guideline in this case relies greatly (and perhaps too much so) on the intended loss amount which, given the nature of the offense, appears to be an ambiguous estimation." (PSR at 25.) The district court's loss estimate was on its face unreasonable and should not be upheld.

In sum, the Application Note factors for estimating loss do not apply in this case because Goldman did not suffer an actual loss and there was no evidence to support an intended loss. The district court erred by applying a 20-point enhancement to Aleynikov's Guidelines offense level to account for intended loss.

B. Aleynikov's 97-Month Sentence Grossly Overstated The Criminality Of His Offense and Was Not Consistent with Sentences Imposed in Similar Cases.

The district court also committed substantive error by imposing a sentence that was both disparate and objectively unreasonable. 18 U.S.C. § 3553(a) requires the court to consider "the need to avoid unwarranted sentence disparities among defendants with similar records who have been found guilty of similar conduct." 18 U.S.C. § 3553(a)(6). United States v. Fernandez, 443 F.3d 19, 32 (2d Cir. 2006). Although the district court took into consideration the recent sentence of a defendant convicted of a similar crime, the disparate sentence imposed is not reasonable.

On February 28, 2011, Judge Rakoff sentenced the defendant in Agrawal, who was charged with theft of trade secrets relating to an HFT program, to 36 months in prison. Unlike here, at Agrawal's trial the Government adduced substantial evidence showing his intent to impose economic harm on SocGen and specifically quantifying that harm. The evidence supported a loss of \$7-\$20 million for a Guidelines range of 63-78 months. Still, the court sentenced Agrawal to 36 months. The Presentence Report in Agrawal calculated the intended loss as \$9.850 million and recommended an upward adjustment of 20 levels. United States

v. Agrawal, 10 Cr. 417 (JSR) (Feb. 28, 2011) (A-574.) Probation's determination in Agrawal was appropriate for two reasons: (1) there was unambiguous evidence of Agrawal's intent to cause pecuniary harm to SocGen; and (2) the evidence suggested that this profit would come at the direct expense of SocGen. Still, Judge Rakoff correctly determined that the resulting sentencing range was far too excessive to rely upon. (A-589.)

In this case, there was no evidence that Aleynikov intended to cause pecuniary harm to Goldman, or that he intended or expected Teza to compete in the same trading space as Goldman. Every Government witness to testify on this topic made clear that any argument that Goldman could suffer pecuniary loss from the theft of the source code taken by Aleynikov unless the thief were deploying its code and generating the same prices and trades as Goldman would be pure speculation. (A-167, 200.) While Agrawal stole HFT programs relating to a specific index-arbitrage strategy that could be used to compete against SocGen (and cut his employment deal with SocGen based on that theft) the source code Aleynikov was accused of stealing was of a far more general nature. The intent to cause pecuniary harm, which was a matter thoroughly proven for purposes of Agrawal's sentencing, is a matter about which there was no proof in Aleynikov's case. As the Government's own theory confirmed, Aleynikov downloaded aspects of Goldman's source code to assist him in creating a new trading system for Teza, whose trading strategy had yet to be defined. Moreover, unlike Agrawal, who shopped his services based on his ability to bring working code with him, Aleynikov was hired based entirely on his proven track record as a programmer.

Aleynikov and Agrawal were both convicted of stealing computer source code to HFT systems. Whereas the Government adduced clear evidence that Agrawal was motivated by greed and that he intended a pecuniary loss to his former employer, it adduced no such evidence in Aleynikov's case. Thus, the need to avoid sentencing disparities expressed in 18 U.S.C. § 3553(a)(6) would only have been served by giving Aleynikov a far more lenient sentence than the 36-month term of imprisonment Agrawal received. For its part, Probation — not an advocate but an arm of the court — recommended just such a sentence: 24 months. But the district court rejected that recommendation and sentenced Aleynikov to 97 months in prison. That sentence — the result of what Probation termed "a staggeringly high offense level and … an unreasonable sentencing range" (PSR at 25) — was manifestly unjust. Whatever motivated that sentence, this Court should not countenance such injustice.

CONCLUSION

For the reasons set forth above, defendant-Appellant Sergey Aleynikov respectfully requests that the Court vacate his conviction and enter a judgment of acquittal or, alternatively, remand this case for a new trial or a new sentencing hearing.

Dated: June 3, 2011
Chatham, New Jersey

Respectfully submitted,

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1. This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(B) because it contains **13,999** words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(B)(iii); and

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/s Kevin H. Marino

Attorney for: Sergey Aleynikov

Dated: June 3, 2011

Addendum

STATUTORY PROVISIONS AT ISSUE

The Economic Espionage Act provides in pertinent part:

> (a) Whoever, with intent to convert a trade secret, that is related to or included in a product that is produced for or placed in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will injure any owner of that trade secret, knowingly —
>
> . . . .
>
> (2) without authorization copies, duplicates, sketches, draws, photographs, downloads, uploads, alters, destroys, photocopies, replicates, transmits, delivers, sends, mails, communicates, or conveys such information;
>
> . . . .
>
> (4) attempts to commit any offense described in paragraphs (1) through (3);
>
> . . . .
>
> shall, except as provided in subsection (b), be fined under this title or imprisoned not more than 10 years.

18 U.S.C. § 1832(a).

The Interstate Transportation of Stolen Property Act provides in pertinent part:

> Whoever transports, transmits, or transfers in interstate or foreign commerce any goods, wares, merchandise, securities or money, of the value of $ 5,000 or more, knowing the same to have been stolen, converted or taken by fraud;
>
> . . . .
>
> Shall be fined under this title or imprisoned not more than ten years, or both.

18 U.S.C. § 2314.