

**United States Court of Appeals
for the Federal Circuit**

**HYOSUNG TNS INC., NAUTILUS HYOSUNG
AMERICA INC., HS GLOBAL, INC.,**
Appellants

v.

INTERNATIONAL TRADE COMMISSION,
Appellee

**DIEBOLD NIXDORF, INC., DIEBOLD SELF-
SERVICE SYSTEMS,**
Intervenors

2017-2563

Appeal from the United States International Trade
Commission in Investigation No. 337-TA-972.

Decided: June 17, 2019

GREGORY G. GARRE, Latham & Watkins LLP, Washing-
ton, DC, argued for appellants. Also represented by
GABRIEL BELL, ELANA NIGHTINGALE DAWSON, KEVIN
WHEELER.

SIDNEY A. ROSENZWEIG, Office of General Counsel,
United States International Trade Commission, Washing-
ton, DC, argued for appellee. Also represented by DOMINIC

L. BIANCHI, WAYNE W. HERRINGTON.

PATRICK FLINN, Alston & Bird LLP, Atlanta, GA, argued for intervenors. Also represented by KEITH E. BROYLES, PAMELA COUNCILL, DAVID FRIST, JOSHUA MARK WEEKS; ADAM SWAIN, Washington, DC.

Before DYK, CLEVINGER, and O'MALLEY, *Circuit Judges*.

DYK, *Circuit Judge*.

Hyosung TNS Inc., Nautilus Hyosung America Inc., and HS Global, Inc., (collectively “Hyosung”) appeal from a decision by the International Trade Commission (“ITC”). The ITC concluded that various automatic teller machine (“ATM”) models imported by Hyosung infringed claims of two patents owned by Diebold Nixdorf, Inc., and Diebold Self-Service Systems (collectively “Diebold”), U.S. Patent Nos. 6,082,616 (’616 patent) and 7,832,631 (’631 patent).¹ The ITC issued a limited exclusion order as well as cease and desist orders.

Because the appeal has become moot as to the ’616 patent, we dismiss the appeal as to the ’616 patent, vacate the ITC’s decision as to that patent, and remand with instructions to revise the applicable orders. We affirm the ITC’s decision and orders as to the ’631 patent.

BACKGROUND

Hyosung and Diebold are both in the market of manufacturing and selling ATMs. Diebold owns the ’616 and ’631 patents directed to ATMs. Diebold filed a complaint with the ITC claiming that Hyosung’s imported ATMs infringe

¹ Other patents were also at issue earlier in the ITC’s investigation, but the only ones at issue on appeal are the ’616 and ’631 patents.

claims in the '616 and '631 patents and their importation violates 19 U.S.C. § 1337(a)(1)(B). The ITC initiated an investigation. The patented technology generally relates to the structure and function of ATMs. The '616 patent claims an ATM rollout tray that allows for easier servicing of internal components of the ATM. The '631 patent relates to a particular method for reading magnetic ink character recognition ("MICR") data on checks (e.g., ink used for the account and routing numbers) that are inserted into an ATM regardless of their width or orientation.

The ITC concluded that Hyosung's accused products infringed both the '616 and '631 patents; that the asserted claims were not shown to be invalid; and that the domestic industry requirement was met for both patents. The ITC entered a limited exclusion order and cease and desist orders against Hyosung.

Thereafter, Hyosung redesigned its products in an effort to avoid infringing the '616 patent. On May 26, 2017, it sought an administrative ruling by U.S. Customs and Border Protection ("Customs") that the redesigned products did not infringe the '616 patent, which would allow Hyosung's importation of the redesigned ATM products. See 19 C.F.R. § 177. Both Hyosung and Diebold participated in the proceeding. Customs concluded that the newly redesigned products did not infringe the '616 patent and were therefore not covered by the ITC's limited exclusion order as to the '616 patent. *Ruling Letter re Certain Automated Teller Machs., ATM Modules, Components Thereof, & Prods. Containing Same*, HQ H286719 (Customs), 2017 WL 3371581, at *17 (July 24, 2017).

Hyosung appeals the ITC's decision. We have jurisdiction under 28 U.S.C. § 1295(a)(6).

DISCUSSION

We review the ITC's factual findings for substantial evidence and legal conclusions de novo. *Honeywell Int'l, Inc.*

v. Int'l Trade Comm'n, 341 F.3d 1332, 1338 (Fed. Cir. 2003).

I. '616 Patent

Claims 1, 6, 10, 16, 26, and 27 of the '616 patent are at issue on appeal. Representative claim 1 of the '616 patent recites:

An automated banking machine apparatus comprising:

a housing bounding an interior area, the housing having a first opening to the interior area;

a rollout tray movably supported on the housing, the rollout tray including a wall portion, a service opening extending through the wall portion, wherein the rollout tray is movable between a first position wherein the tray extends outward from the first opening and the service opening is accessible from outside the housing, and a second position wherein the tray is within the interior area and the service opening is not accessible from outside the housing;

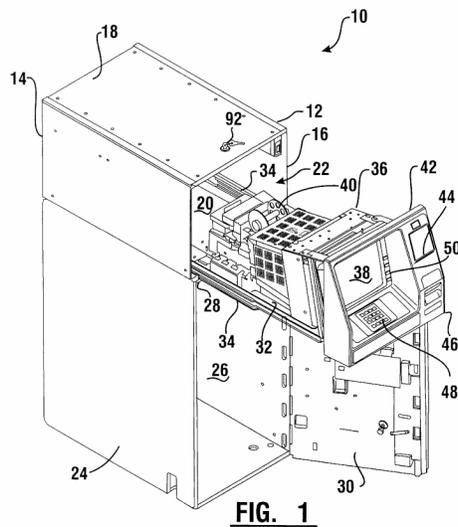
a first serviceable component mounted in supporting connection with the tray and overlying the service opening, the serviceable component having a service point, and wherein the service point is accessible from outside the housing by extending a tool upwardly through the service opening when the tray is in the first position.

'616 patent, col. 8, ll. 8–25 (emphases added).

Hyosung makes two arguments as to why the ITC erred when it found infringement of the '616 patent. First, Hyosung argues that the ITC improperly construed the claim term “service opening.” Based on the intrinsic record, the ITC construed the term to mean “an opening through which a component *may* be serviced.” J.A. 94 (emphasis

added). Hyosung argues this is an erroneous construction because the claim term, in the context of the specification and prosecution history, requires an opening that is *designed to enable* servicing of a component. Hyosung contends that the alleged service openings were not so designed, and the administrative law judge found that most of the imported ATMs had other ways to access components for servicing other than by using the alleged “service opening extending through the wall portion” of the rollout tray.

Second, Hyosung argues that the ITC improperly found that its products met the claim limitation “a second position wherein the tray is within the interior area and the service opening is not accessible from outside the housing.” The parties agreed that the term “housing bounding an interior area” refers to the “structure bounding an interior area from which the rollout tray extends and into which the rollout tray is retracted.” J.A. 336. An example of such a “housing” (12) is shown in Figure 1 of the '616 patent.



The patent distinguishes between the top portion of the enclosure (housing 12) and the bottom portion (chest 24). The ITC found that the second position limitation was satisfied

because in normal operation the alleged service openings in the imported ATMs are not accessible from outside the housing when the rollout tray is retracted within the interior area. Hyosung argues that even if its products have service openings, they do not meet the second position limitation because the alleged service openings are always accessible from outside the housing, albeit not from outside the entire ATM enclosure, when the rollout tray is retracted within the interior area.

The ITC argues that we should not reach these issues because the appeal has become moot as to the '616 patent. This is so, the ITC contends, because the patent expired on June 2, 2018, and there is no evidence that the ITC orders were violated during the time they were in effect. The ITC argues that the court should “vacate the Commission’s finding of violation of section 337 as to the '616 patent, and remand to the Commission with a direction to dismiss as moot.” ITC Response Br. 28. Hyosung agrees,² but Diebold argues that the appeal is not moot.

The party arguing that a case has become moot “bears the burden of coming forward with the subsequent events that have produced that alleged result.” *Cardinal Chem. Co. v. Morton Int’l, Inc.*, 508 U.S. 83, 98 (1993). We agree with the ITC and Hyosung that this case has become moot.

Because the '616 patent has expired, the ITC’s limited exclusionary order and cease and desist orders as to that patent have no further prospective effect. *Tessera, Inc. v. Int’l Trade Comm’n*, 646 F.3d 1357, 1371 (Fed. Cir. 2011) (citing *Tex. Instruments Inc. v. U.S. Int’l Trade Comm’n*, 851 F.2d 342, 344 (Fed. Cir. 1988)). Diebold does not disagree. However, Diebold argues the appeal is not moot

² However, Hyosung argues that the appeal as to the '616 patent only becomes moot if the ITC decision is vacated.

because there is a genuine possibility of future enforcement proceedings based on Hyosung's importation of its redesigned products during the time that the ITC's orders were in effect.

There is no assertion that Hyosung imported the original allegedly infringing ATMs during the duration of the ITC orders. Diebold also does not argue on appeal that Hyosung's imported redesigned products, which have a plastic cover over the alleged service openings, infringe the '616 patent. Instead, Diebold argues that Hyosung *may* have violated the ITC's orders if Hyosung removed the plastic cover after importation of the redesigned products but before it sold them or if Hyosung instructed customers to remove the covers. Diebold has admitted that there is no evidence that this has occurred, and it has failed to identify a plausible reason why the plastic cover would be removed for most of the imported products where the covered components can still be accessed for service in another way.

Diebold has had nearly two years since Customs' ruling that Hyosung's redesigned products do not infringe to investigate whether Hyosung violated the ITC orders and to bring an enforcement proceeding at the ITC, which it has failed to do. However, Diebold argues that it has brought an infringement action in district court and might discover additional information in that action that could show Hyosung violated the ITC orders, which could then lead the ITC to institute an enforcement proceeding. Such "speculation" based on a "highly attenuated chain of possibilities" is insufficient to constitute a continuing controversy. *Clapper v. Amnesty Int'l USA*, 568 U.S. 398, 410 (2013); see *United Transp. Union v. ICC*, 891 F.2d 908, 912 (D.C. Cir. 1989) ("[W]e may reject as overly speculative those links which are predictions of future events (especially future actions to be taken by third parties) . . ."); see also *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 189 (2000) (quoting *Arizonans for Official English v. Arizona*, 520 U.S. 43, 68 n.22 (1997)).

Diebold argues finally that possible collateral consequences of a decision on the merits prevent the case from becoming moot. The argument is that our affirmance or reversal of the ITC decision would have collateral consequences in the pending district court infringement action. To be sure, a case may remain alive based on “[c]ollateral consequences[, which] may be found in the prospect that a judgment will affect future litigation or administrative action.” 13C Charles Alan Wright, Arthur R. Miller & Edward H. Cooper, *Federal Practice and Procedure* § 3533.3.1 (3d ed. 2008). But we have held that the ITC’s determination of patent infringement and validity do not have claim or issue preclusive effect even if affirmed by our court. *Bio-Tech. Gen. Corp. v. Genentech, Inc.*, 80 F.3d 1553, 1563–64 (Fed. Cir. 1996); *Tex. Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1568–69 (Fed. Cir. 1996); *Tandon Corp. v. U.S. Int’l Trade Comm’n*, 831 F.2d 1017, 1019 (Fed. Cir. 1987).

In cases where the patent at issue has expired before appellate review, we have dismissed the appeal from the ITC decision as moot despite the fact that there was pending civil litigation that could have been impacted by a decision on appeal. *See Tex. Instruments Inc. v. U.S. Int’l Trade Comm’n*, 851 F.2d 342, 344 (Fed. Cir. 1988) (rejecting party’s argument that the appeal was not moot based on the potential impact on district court litigation); *see also e.g., Tessera, Inc. v. Int’l Trade Comm’n*, 646 F.3d 1357, 1361 (Fed. Cir. 2011); *Tessera, Inc. v. A-DATA Tech. Co.*, No. 2:07-CV-534 (E.D. Tex.) (case moot when there was pending district court litigation). We conclude that in the circumstances of this case, the potential for collateral consequences resulting from the possible stare decisis effect of

our decision, if precedential, does not prevent the appeal from becoming moot.³

Under similar circumstances, where an appeal from the ITC has become moot based on expiration of a patent during pendency of appeal, such “happenstance” has been recognized as supporting vacatur of the underlying decision. *Tessera*, 646 F.3d at 1371; see *Arizonans for Official English*, 520 U.S. at 71 (“Vacatur is in order when mootness occurs through happenstance”); *A.L. Mechling Barge Lines, Inc. v. United States*, 368 U.S. 324, 329–30 (1961); *United States v. Munsingwear, Inc.*, 340 U.S. 36, 39–40 (1950) (noting it is the “duty of the appellate court” to vacate a decision that has become moot during pendency of appeal as the result of events outside the parties’ control). We accordingly vacate the ITC’s decision as to the ’616 patent, and we remand with instructions to amend the cease and desist orders as they relate to the ’616 patent and to amend the limited exclusion order so that the orders are inapplicable to importation of products alleged to infringe the ’616 patent.

II. ’631 Patent⁴

A. Invalidity

Claims 1–7 and 18–20 of the ’631 patent are at issue on appeal. Claim 1 recites:

³ This case is unlike *Microsoft Corp. v. International Trade Commission*, No. 12-1445, 2014 WL 10209132 (Fed. Cir. 2014), a non-precedential decision, where patent expiration and alleged mootness occurred after our court reached its decision on the merits and had already denied the petition for rehearing en banc and no party had raised the issue of the patent’s imminent expiration.

⁴ The ITC declined to institute review of most of the administrative law judge’s determinations relating to the

A method of sensing magnetic indicia on at least one financial check, comprising:

(a) receiving at least one check in an automated banking machine, wherein the at least one check includes a check comprising magnetic indicia encoded in a micr line thereon;

(b) sensing through operation of at least one sensor in the machine, a width associated with the check, wherein the at least one sensor is in operative connection with at least one processor in the machine;

(c) moving responsive at least in part to the width sensed in (b), at least one of two magnetic read heads in the machine, wherein the at least one magnetic read head is moved responsive at least in part to operation of the at least one processor, wherein the at least one magnetic read head is moved such that the micr line on the check is aligned with one of the magnetic read heads regardless of a facing position of the check;

(d) moving the check past the two magnetic read heads in the machine responsive at least in part to operation of the at least one processor;

(e) sensing micr line data on the check with one of the two magnetic read heads.

'631 patent, col. 41, ll. 24–46 (emphasis added).

Hyosung makes two arguments for why the ITC erred when it concluded that Hyosung had failed to show the asserted claims of the '631 patent were invalid as obvious by clear and convincing evidence. First, Hyosung argues that the ITC applied an erroneous legal analysis for motivation

'631 patent, which thereafter became the decision of the agency.

to combine. Second, Hyosung argues that the ITC erred by failing to find that the two prior art references, Yasuhiko (Japanese patent application JP2004–110612A) and Kim (Korean patent KR0613889), in light of knowledge of a person of ordinary skill in the art, as evidenced by a third reference, Volpa (U.S. Patent No. 7,474,780), rendered the asserted claims obvious.

Although we are skeptical that the ITC applied the correct motivation to combine analysis,⁵ we do not reach this issue as Hyosung has failed to show that the prior art combination rendered the asserted claims obvious. In particular, Hyosung has failed to show that the alleged prior art combination satisfied the limitation of reading a check's MICR line information "regardless of the facing position of the check." '631 patent, col. 41, ll. 38–41 (claim 1), col. 44, ll. 10–12 (claim 18). The parties agreed that the claim term "facing position[s]" meant "any of the up, down, forward, and backward positions." J.A. 336 (alteration in original).

Hyosung relied on the combination of two prior art references, Yasuhiko and Kim, as rendering the asserted claims of the '631 patent obvious. Yasuhiko and Kim are not alleged to have explicitly taught the ability to read checks inserted upside-down.⁶ Instead, Hyosung contends that a person of ordinary skill in the art would understand that the MICR reader in Kim could read through the paper

⁵ See *Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)).

⁶ Hyosung also does not argue that a person of skill in the art would have been motivated to modify the combination of Yasuhiko and Kim to add a MICR reader that could read a check that was inserted upside down to arrive at the claimed invention. Below, Hyosung discarded its obviousness argument based on a three-piece prior art combination of Yasuhiko, Kim, and Volpa.

of a check, such that the combination satisfies the claim limitation of being capable of reading a check inserted upside down into the ATM. Hyosung relied on Volpa, not as a separate piece of prior art to be combined with Yasuhiko and Kim, but rather as evidence of the knowledge of a person of ordinary skill in the art that Kim's MICR reader would have such capability. *See Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015) ("Art can legitimately serve to document the knowledge that skilled artisans would bring to bear in reading the prior art identified as producing obviousness."). The ITC rejected Hyosung's argument based on the express teaching in Kim that "all the checks may be recognized [by Kim's invention] unless the user inserts the checks upside down." J.A. 40349.

Hyosung's response is that Kim misunderstood the extent of the capabilities of its MICR reader, but that does not show that the ITC's contrary conclusion was not supported by substantial evidence. We therefore affirm the conclusion that Hyosung failed to show the asserted claims of the '631 patent were obvious.

B. Domestic Industry Requirement

As an independent basis for reversal of the ITC's conclusion that there was a violation under 19 U.S.C. § 1337(a)(1)(B) based on the '631 patent, Hyosung argues that the ITC erred by relying on Diebold's multi-million-dollar investment in research and development from 2005 to 2010 to satisfy the economic prong of the domestic industry requirement.

For there to be a violation under § 1337(a)(1)(B) based on a claim of patent infringement, a domestic industry must exist or be in the process of being established. 19 U.S.C. § 1337(a)(2) ("Subparagraph[] (B) . . . of paragraph (1) appl[ies] only if an industry in the United States, relating to the articles protected by the patent . . . exists or is in the process of being established."). The ITC generally

determines whether a domestic industry exists as of the date the complaint is filed. *See Motiva, LLC v. Int’l Trade Comm’n*, 716 F.3d 596, 601 n.6 (Fed. Cir. 2013). The domestic industry requirement has two prongs: “the ‘economic prong,’ which requires that there be an industry in the United States, and the ‘technical prong,’ which requires that the industry relate to articles protected by the patent.” *InterDigital Comm’ns, LLC v. Int’l Trade Comm’n*, 707 F.3d 1295, 1298 (Fed. Cir. 2013). There is no argument on appeal that the technical prong is not satisfied by Diebold’s products, which are within the scope of the claims.

For the economic prong, the statute provides that an industry:

shall be considered to exist if there is in the United States, with respect to the articles protected by the patent . . . concerned—

- (A) significant investment in plant and equipment;
- (B) significant employment of labor or capital; or
- (C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3). The above activities “must pertain to products covered by the [asserted] patent.” *InterDigital*, 707 F.3d at 1297–98. Additionally, the statute “requires a quantitative analysis in determining whether a petitioner has demonstrated a ‘significant investment in plant and equipment’ or ‘significant employment of labor or capital.’” *Lelo Inc. v. Int’l Trade Comm’n*, 786 F.3d 879, 883 (Fed. Cir. 2015).

The ITC has previously held that “[p]ast expenditures may be considered to support a domestic industry claim so long as those investments pertain to the complainant’s industry with respect to the articles protected by the asserted [intellectual property] rights and the complainant is

continuing to make qualifying investments at the time the complaint is filed.” *Certain Television Sets, Television Receivers, Television Tuners, & Components Thereof*, Inv. No. 337-TA-910, 2015 WL 6755093, at *36 (Oct. 30, 2015).

As of the date Diebold filed its complaint in 2015, the ITC found that the economic prong of the domestic industry requirement was satisfied for the ’631 patent. The ITC primarily relied on Diebold’s multi-million-dollar investments between 2005 and 2010 for the research and development of its IDMBd module, which included the claimed feature of a movable magnetic read head recited in the asserted ’631 patent claims. The ITC found this to be a substantial investment with a nexus to ongoing expenses in field service and assembly for the ATMs containing the IDMBd module, and reflected in an increasing number of ATMs that were being fitted with the IDMBd modules.

On appeal, Hyosung argues that the ITC erred by finding that a domestic industry “exists” “irrespective of when [Diebold’s research and development] investments occurred or how connected they are to the present.” Hyosung Open. Br. 55. Hyosung contends that “where investments occur five years or more before a complaint is filed and are not connected to any meaningful ongoing investments, they do not count.” Hyosung Reply Br. 26. We disagree with Hyosung’s characterization of the ITC’s decision and conclude that Hyosung has failed to demonstrate error with the ITC’s determination.

There is nothing in the statutory language that supports Hyosung’s bright line rule for rejecting research expenditures that are made more than five years earlier. To be sure, a past investment may have such an attenuated connection to the continued existence of a domestic industry as to be irrelevant, *see, e.g., Motiva*, 716 F.3d at 600–01, but that has not been shown to be the case here. We see no legal error in the ITC’s conclusion that a past investment may, by virtue of its connection to ongoing field

service and assembly expenses, support a finding that the economic prong of the domestic industry requirement is met. Here, there is substantial evidence supporting the ITC's finding that Diebold's earlier substantial investment in research and development relating to the '631 patent was relevant based on the ongoing qualifying and meaningful expenditures exploiting that technology, and that there was a sufficient nexus between the earlier investment in research and the continuing expenditures. We affirm the ITC's determination that a domestic industry exists for the '631 patent.

CONCLUSION

As to the '616 patent, we dismiss the appeal as moot, vacate the ITC's decision, and remand with instructions to amend the relevant ITC orders. For the '631 patent, we affirm the ITC's conclusions that Hyosung failed to show that the asserted claims were invalid as obvious and that the economic prong of the domestic industry requirement under 19 U.S.C. § 1337(a)(3) was satisfied.

**AFFIRMED-IN-PART, VACATED-IN-PART,
DISMISSED-IN-PART, AND REMANDED**

COSTS

No costs.