ONLINE APPENDIX – NOT FOR PUBLICATION

A Appendix: German legal system

Infringement

A patent holder initiates the infringement proceedings by filing an infringement action. The patent holder can seek different forms of legal relief; for example, a cease and desist order to halt the infringing act, the recall and destruction of infringing goods, rendering of account to identify distribution channels and calculate damages, or damages for losses suffered. The patent holder can also request a preliminary injunction against the alleged infringer. However in practice, preliminary injunctions are rare because they require clear-cut evidence regarding the infringing act, the validity of the patent, and urgency (Kühnen, 2012).[46]

The main oral hearing takes place roughly between five to twelve months after the action was filed. Main oral hearings rarely exceed one day and often last for only a few hours. In case of a parallel validity challenge, the judges may grant the request to stay the proceeding until a decision on the patent's validity is available (see Section 2.1.2 in the main text). If the infringement action is not stayed, the judges hand down a written judgment usually four to ten weeks after the main oral hearing, which concludes the proceeding in first instance. Alternatively, the litigants may settle at any time during the proceeding. The 'winner' can demand the reimbursement of legal costs from the losing party.[47]

In the proceeding, the defendant may dispute the infringement allegations, but the possible invalidity of a patent does *not* constitute an admissible defense. The alleged infringer has to challenge the patent's validity through a separate opposition or invalidity action.

Invalidity

The alleged infringer may challenge a granted patent through opposition or, subsequently, an invalidity action – which require separate proceedings from the infringement action. An opposition to an EP (DE) patent can be filed at the EPO (DPMA) within the first 9 months (3 months) after grant of the patent. After this period, the alleged infringer may still join an already pending opposition proceeding. It is noteworthy that the EPO and DPMA may continue the proceeding *ex officio* and decide on validity even if the opponent withdraws the opposition. If invalidated, the patent is

[46] An injunction might be granted, for example, if the suspected infringer is about to start selling a product that clearly infringes a patent that is most likely valid and where selling the infringing product would result in substantial losses for the patent holder. That said, although there has been a recent increase in the number of preliminary injunctions (Müller-Stoy and Wahl, 2008), they are still a relatively rare occurrence in patent litigation (Böhler, 2011).

[47] Legal costs include court fees, attorney-at-law as well as patent attorney fees, and further expenses, such as travel or translation costs. Attorneys may charge their clients significantly higher fees than those eligible for reimbursement, thus legal costs are not always shifted entirely to the losing party.

deemed void counting from its grant date.[48] Each litigant usually bears his own costs of the opposition proceeding.

After the end of the opposition phase, or – in case of an opposition – after the end of the opposition proceeding, validity can be challenged only through an invalidity action at the BPatG. Although an invalidity action can be filed by any person or legal entity, almost all invalidity actions are filed in response to infringement actions.[49]

Unlike in opposition proceedings, the plaintiff has full discretion to withdraw his action at any time. As in the case of oppositions, if the BPatG invalidates a patent, it is invalid since its grant date. The winning party of the invalidity proceeding can demand the reimbursement of legal costs from the losing party.

B Appendix: U.K. legal system

As in the case of Germany, patent holders initiate infringement proceedings by filing a claim with either the IPEC or PHC seeking different forms of relief. After the filing of the claim form, the defendant files a response, in which he declares whether he raises any defence. The response usually already states whether the defendant counterclaims for invalidity. Note that unlike in Germany, courts have jurisdiction to decide on validity regardless of whether the deadline for opposition against an EP patent at the EPO has lapsed. In case of pending opposition proceedings before the EPO, judges have discretion to stay proceedings, but in practice have rarely done so.

The main oral hearings take place usually around 12 months after the claim form has been filed. Oral hearings are a lot more extensive than in Germany with trials often lasting several days and sometimes even weeks. This is due to more detailed oral arguments, expert testimony, and cross-examination. In first instance, judgments are usually handed down within 2-12 weeks of the trial.

C Appendix: Proof of Lemma 1

The patent holder's expected payoff is given by

$$\tilde{G}^{nb}(S) = \begin{cases} S & \text{if} \quad S \leq \underline{S}^{nb} \\ G^{nb}(S) & \text{if} \quad \underline{S}^{nb} < S \leq \bar{S}^{nb} \\ -C_P + \frac{\alpha^{nb}}{2}\left(\overline{\theta} + \underline{\theta}\right) B_P - \left(1-\alpha^{nb}\right) L_P & \text{if} \quad S > \bar{S}^{nb} \end{cases}$$

where

$$\begin{aligned} G^{nb}(S) &= \frac{\overline{\theta} - \hat{\theta}^{nb}(S)}{\overline{\theta} - \underline{\theta}} S + \frac{\hat{\theta}^{nb}(S) - \underline{\theta}}{\overline{\theta} - \underline{\theta}} \left[-C_P + \frac{\alpha^{nb}}{2}\left(\hat{\theta}^{nb}(S) + \underline{\theta}\right) B_P - \left(1-\alpha^{nb}\right) L_P \right] \\ &= \frac{1}{\overline{\theta} - \underline{\theta}} \left\{ \left(\overline{\theta} - \frac{S - C_D}{\alpha^{nb} L_D} \right) S + \left(\frac{S - C_D}{\alpha^{nb} L_D} - \underline{\theta} \right) \left[-C_P + \frac{\alpha^{nb}}{2} \left(\frac{S - C_D}{\alpha^{nb} L_D} + \underline{\theta} \right) B_P - \left(1-\alpha^{nb}\right) L_P \right] \right\} \end{aligned}$$

[48] Note that for EP patents, the decision has effect in all states where the opposed patent is in force.

[49] von Hees and Braitmayer (2010) estimate that this is the case for 90% of all invalidity actions.

Under the assumption $B_P = L_D$, the latter can be simplified into

$$G^{nb}(S) = \frac{1}{\overline{\theta} - \underline{\theta}} \left\{ -\frac{S^2}{2} + \left[\alpha^{nb} L_D \overline{\theta} - C_P - \left(1 - \alpha^{nb}\right) L_P \right] S + K \right\}$$

where K is a term that does not depend on S. Differentiating this with respect to S yields

$$\frac{dG^{nb}}{dS} = \frac{1}{\overline{\theta} - \underline{\theta}} \left\{ \overline{\theta} - \frac{1}{\alpha^{nb} L_D} \left[C_P + \left(1 - \alpha^{nb}\right) L_P + S \right] \right\}$$

Since $G^{nb}(S)$ is a (strictly) concave quadratic function in S, it has a unique unconstrained maximum. The value of S at which the unconstrained maximum is reached, which we denote S^{nb}, is given by the first-order condition

$$\frac{dG^{nb}}{dS} = 0$$

which implies that

$$S^{nb} = \alpha^{nb} \overline{\theta} L_D - C_P - \left(1 - \alpha^{nb}\right) L_P$$

Since $S^{nb} < \bar{S}^{nb}$ and $\tilde{G}^{nb}(.)$ is continuous at $S = \bar{S}^{nb}$, the patent holder never finds it optimal to make a settlement offer that is refused by all types of defendants, i.e., an offer involving an amount greater than $\bar{S}^{nb}$. Moreover, since $\tilde{G}^{nb}(.)$ is increasing in S over $\left[0, \underline{S}^{nb}\right]$, the patent holder never finds it optimal to make a settlement offer involving an amount $S < \underline{S}^{nb}$.

Therefore, the equilibrium settlement amount is given by

$$\tilde{S}^{nb} = \max\left(S^{nb}, \underline{S}^{nb}\right)$$

or, equivalently,

$$\tilde{S}^{nb} = \begin{cases} \alpha^{nb} L_D \overline{\theta} - C_P - \left(1 - \alpha^{nb}\right) L_P & \text{if} \quad \overline{\theta} - \underline{\theta} \geq \frac{C_D + C_P + \left(1 - \alpha^{nb}\right) L_P}{\alpha^{nb} L_D} \\ \alpha^{nb} \underline{\theta} L_D + C_D & \text{otherwise} \end{cases}$$

Then, denoting $\tilde{\theta}^{nb} = \hat{\theta}^{nb}\left(\tilde{S}^{nb}\right)$ we get

$$\tilde{\theta}^{nb} = \begin{cases} \overline{\theta} - \frac{C_P + C_D + \left(1 - \alpha^{nb}\right) L_P}{\alpha^{nb} L_D} & \text{if} \quad \overline{\theta} - \underline{\theta} \geq \frac{C_D + C_P + \left(1 - \alpha^{nb}\right) L_P}{\alpha^{nb} L_D} \\ \underline{\theta} & \text{otherwise} \end{cases}$$

Remark 1. *If we relax the assumption that $B_P = L_D$, then the patent holder may find it optimal to make a settlement offer which is not accepted by any defendant (which would be the same as not making an offer at all). To see why, consider the scenario in which $B_P > 2L_D$. In this case, it can be shown that $\tilde{G}^{nb}(.)$ is convex over $\left[\underline{S}^{nb}, \bar{S}^{nb}\right]$ (while it is concave over this range under the assumption $B_P = L_D$). Therefore, the optimal settlement amount is either $\underline{S}^{nb}$, which is accepted by all defendant types, or $\bar{S}^{nb}$, which is turned down by all defendant types. Comparing $\tilde{G}^{nb}\left(\underline{S}^{nb}\right)$ and $\tilde{G}^{nb}\left(\bar{S}^{nb}\right)$ shows that the optimal settlement amount is $\bar{S}^{nb}$ if*

$$B_P > \max\left(2L_D, \frac{2}{\alpha^{nb}\left(\underline{\theta} + \overline{\theta}\right)} \left[\alpha^{nb} \underline{\theta} L_D + \left(1 - \alpha^{nb}\right) L_P + C_P + C_D \right] \right).$$

D Appendix: Model Extension – Timing

In this section we consider an extension of our model in which i) time is modeled explicitly, ii) discounting is introduced, and iii) the parties' payoffs are a special case of the reduced-form payoffs in our baseline model.

D.1 Non-bifurcated system

Consider the following discrete-time setting. At $t = 0$, the (future) defendant D takes an action that infringes the patent with probability θ. At $t = T_s > 0$, the patent holder decides whether to sue D for infringement. If he does then he incurs a (lump-sum) litigation cost C_P in that period and the alleged infringer also incurs a litigation cost C_D in the same period.[50] We assume that the alleged infringer can file a counterclaim to challenge the patent's validity at $t = T_c > T_s$. If the patent holder engages in litigation then the court hands down its judgment regarding the infringement, and the patent's validity if challenged, at $t = T_j > T_s$. Finally, assume that the expiration date of the patent is $t = \tilde{T} > T_j$ and, therefore, the technology it covers can be used for free from period $\tilde{T} + 1$ on.

We assume that the patent holder and the alleged infringer are active in the same product market and that a third firm, firm E, contemplates the possibility of entering the market at $t = T_e$ with $T_j < T_e \leq \tilde{T}$. If the patent has been invalidated at $t = T_j$ then firm E enters the market at $t = T_e$. Otherwise, it enters the market at $t = \tilde{T} + 1$.

For the sake of simplicity, we suppose that the three firms are symmetric and that each firm makes a per-period profit π_k whenever active in the market in that period, with $k \in \{1, 2, 3\}$ being the number of firms active in the market in the considered period. We capture the rent-dissipating effect of competition by assuming that the per-period industry profits decrease with the number of active firms, i.e., $\pi_1 > 2\pi_2 > 3\pi_3$.

If the court finds that the patent is valid and infringed it makes the alleged infringer pay damages to the the patent holder. We suppose that these damages are equal to the loss incurred by the patent holder because the alleged infringer was active in the output market. More specifically, denoting δ the patent holder's and alleged infringer's discount factor, the damages that the latter has to pay to the former if the patent is found valid and infringed are equal to

$$\sum_{t=0}^{T_j} \delta^{t-T_s} (\pi_1 - \pi_2)$$

when discounted at the time when the infringement suit starts, i.e., $t = T_s$ (for the sake of exposition all payoffs will be discounted at $t = T_s$ rather than $t = 0$). Moreover, when the court finds the patent to be valid and infringed, it delivers an injunction against the alleged infringer who cannot be anymore active in the market between periods $T_j + 1$

[50] Assuming that the patent holder and the alleged infringer incur a litigation cost per period instead of a lump-sum litigation cost at the beginning of the trial would not affect our analysis: C_P and C_D would just need to be interpreted as the sum of the discounted per-period litigation costs.

and $\tilde{T}$. The alleged infringer can, and will, however, re-enter the market after the patent expires, i.e., at $t = \tilde{T} + 1$.

Let us normalize to 0 the payoffs of the patent holder and the alleged infringer when the former decides not to sue the latter for infringement. Then the patent holder's payoff (discounted to $t = T_s$) if the patent is found valid and infringed is

$$-C_P + \sum_{t=0}^{T_j} \delta^{t-T_s}(\pi_1 - \pi_2) + \sum_{t=T_j+1}^{\tilde{T}} \delta^{t-T_s}(\pi_1 - \pi_2) = -C_P + \sum_{t=0}^{\tilde{T}} \delta^{t-T_s}(\pi_1 - \pi_2)$$

while the alleged infringer's payoff is given by

$$-C_D - \sum_{t=0}^{T_j} \delta^{t-T_s}(\pi_1 - \pi_2) - \sum_{t=T_j+1}^{\tilde{T}} \delta^{t-T_s}\pi_2$$

Let us now consider the scenario in which the patent is found invalid by the court. The patent holder's payoff is then

$$-C_P - \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s}(\pi_2 - \pi_3)$$

because the invalidation of the patent makes firm E enter the market at $t = T_e$ instead of $t = \tilde{T} + 1 > T_e$. This is also why the alleged infringer's payoff in that case is given by

$$-C_D - \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s}(\pi_2 - \pi_3)$$

Finally, let us consider the scenario in which the court finds that the patent is valid but not infringed. Then, the patent holder's payoff is $-C_P$ and the alleged infringer's payoff is $-C_D$.

D.2 Bifurcated system

To account for bifurcation we make the following changes to the above setting. First, we suppose that the alleged infringer has to incur an additional litigation cost c'_D at $t = T_c$ if he decides to challenge the patent's validity, and we denote c_D the value of this litigation cost when discounted at $t = T_s$:

$$c_D = \delta^{T_c - T_s} c'_D.$$

Second, we assume that the court that examines the infringement issue hands down its judgment at $t = T_j$, and that the court that examines the validity issue (when it is challenged by the alleged infringer) makes a decision at $t = T_v$ with $T_j < T_v < T_e$. The length of the injunction gap is then given by $T_v - T_j$.

Third, we suppose that if the patent is found infringed at $t = T_j$, the infringer has to pay damages to the patent holder equal to those under the non-bifurcated system,[51] and faces an injunction that prevents him from being active in the output market from period $t = T_j + 1$ until $t = T_v$. If the patent is found valid at $t = T_v$ then the injunction is confirmed and the infringer cannot re-enter the market before $t = \tilde{T} + 1$. However, if the patent is found invalid then the infringer can re-enter the market right after the invalidity decision, i.e., at $t = T_v + 1$. Moreover, he can recover the damages he had to pay to the patent holder at $t = T_j$ and can claim for compensation for the fact that he wrongly faced an injunction between periods T_j+1 and T_v. To capture the loss (benefit) that the injunction gap induces for the alleged infringer (patent holder) we assume that he is not fully compensated: the patent holder pays to the infringer an amount

$$\beta \sum_{t=T_j+1}^{T_v} \delta^{t-T_s} \pi_2$$

where $\beta \in [0,1]$, while the alleged infringer's lost profits from the injunction are $\sum_{t=T_j+1}^{T_v} \delta^{t-T_s} \pi_2$.

Thus, when the patent is found infringed and is subsequently invalidated (which implies that it was challenged), the patent holder's payoff is[52]

$$\begin{aligned} -C_P + \sum_{t=T_j+1}^{T_v} \delta^{t-T_s} [\pi_1 - \pi_2 - \beta \pi_2] - \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s} (\pi_2 - \pi_3) \;\; &= \;\; -C_P + \sum_{t=T_j+1}^{T_v} \delta^{t-T_s} [\pi_1 - (1+\beta) \pi_2] \\ &\quad - \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s} (\pi_2 - \pi_3) \end{aligned}$$

while the alleged infringer's payoff is

$$-C_D - c_D - \sum_{t=T_j+1}^{T_v} \delta^{t-T_s} (1-\beta) \pi_2 - \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s} (\pi_2 - \pi_3).$$

Consider now the scenario in which the patent is found not infringed and is invalidated. Then, the patent holder's payoff is

$$-C_P - \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s} (\pi_2 - \pi_3)$$

and the alleged infringer's payoff is

$$-C_D - c_D - \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_t} (\pi_2 - \pi_3).$$

[51] More precisely, those damages are equal to $\sum_{t=0}^{T_j} \delta^{t-T_s} (\pi_1 - \pi_2)$.

[52] Recall that we normalize to 0 the payoffs of the patent holder and the alleged infringer when the former decides not to sue the latter for infringement.

Assume now that the patent is found infringed and is not invalidated. Then, the patent holder's payoff is

$$-C_P + \sum_{t=0}^{\tilde{T}} \delta^{t-T_s}(\pi_1 - \pi_2)$$

regardless of whether the valildity was not challenged, or was challenged but was upheld by the court, and the alleged infringer's payoff is

$$-C_D - c_D - \sum_{t=0}^{T_j} \delta^{t-T_s}(\pi_1 - \pi_2) - \sum_{t=T_j+1}^{\tilde{T}} \delta^{t-T_s}\pi_2$$

if he challenged the patent's validity, and

$$-C_D - \sum_{t=0}^{T_j} \delta^{t-T_s}(\pi_1 - \pi_2) - \sum_{t=T_j+1}^{\tilde{T}} \delta^{t-T_s}\pi_2$$

if he did not.

Finally, if the patent is found not infringed and is not invalidated then the patent holder's payoff is $-C_P$ (regardless of whether the validity was not challenged, or was challenged but was upheld by the court), while the alleged infringer's payoff is $-C_D - c_D$ if he challenged the patent's validity and $-C_D$ if he did not.

D.3 Payoff-equivalence with the baseline model

It is straightforward that the payoffs in the above model are a special case of the reduced-form payoffs of our baseline model, where:

$$L_P = \sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s}(\pi_2 - \pi_3)$$

$$I_D = -\sum_{t=T_e}^{\tilde{T}} \delta^{t-T_s}(\pi_2 - \pi_3)$$

$$B_P = \sum_{t=0}^{\tilde{T}} \delta^{t-T_s}(\pi_1 - \pi_2)$$

$$L_D = \sum_{t=0}^{T_j} \delta^{t-T_s}(\pi_1 - \pi_2) + \sum_{t=T_j+1}^{\tilde{T}} \delta^{t-T_s}\pi_2$$

$$l_D = \sum_{t=T_j+1}^{T_v} \delta^{t-T_s}(1-\beta)\pi_2$$

$$b_P = \sum_{t=T_j+1}^{T_v} \delta^{t-T_s}[\pi_1 - (1+\beta)\pi_2]$$

This implies that all the results obtained in our baseline model carry over to the model considered in this extension.

E Appendix: Variable Description

This appendix describes the construction of the variables used in our analysis.

- **Dependent variables**
  - *Validity challenge:* for Germany, validity challenge refers to an invalidity proceeding that occurs parallel to the infringement proceeding and is based on the same patent. For the U.K., validity challenge refers to a counterclaim filed by the alleged infringer in the infringement proceeding.
  - *Settlement:* we denote the outcome of a proceeding as settlement if the court does not render a decision. Settlements may encompass court settlements, out-of-court settlements, and withdrawn actions.
- **Litigating parties**
  - *Size:* we categorized companies according to the EU definition into four size categories using a combination of the number of employees, turnover, and total assets. If several companies from the same business group appeared as co-plaintiffs or co-defendants, we allocated the entire business group into the size category of its largest member.
  - *Residence:* we identified a company's origin using information available in the court records, Bureau van Dijk's FAME and Amadeus databases, as well as web searchers. We then allocated companies into three categories: domestic (Germany/U.K.), Europe, and rest of the world.
  - *Top legal representative:* For Germany, we identified top law firms in patent litigation according to a ranking of leading law firms published in 2009 (Top 50 law firms in patent litigation and patent applications in Germany) by the legal professional journal JUVE Rechtsmarkt. For the U.K. we relied on the ranking published by Chambers and Partners, so-called *Band 1* and *Band 2* law firms in London and outside London.
  - *Non-practicing entity (NPE):* we identified NPEs in the German and U.K. data by identifying the patent holder in each case and we then determined manually, using web searches, news reports, court filings, and the existing academic literature on NPEs and PAEs whether a patent holder was an NPE at the time of the court case. For more details see Love et al. (2016).
  - *Number of parties:* we counted the number of independent parties that are accused of infringement.
  - *Multinational group:* we created a binary variable that indicated whether alleged infringers with different residences belong to the same multinational group.

- **Patent characteristics**
  - *Forward citations (in first 3 years):* we counted the number of patents citing the focal patent within the first three years after the earliest publication.
  - *Backward citations (patents):* we counted a patent's number of citations to other patents.
  - *Backward citations (non-patent literature):* we counted a patent's number of citations to non-patent literature.
  - *IPC subclasses count:* we counted the number of unique IPC subclasses of the patent.
  - *Family size (DOCDB):* we counted the number of patents that belong to the same family (according to the DOCDB definition) of the patent.
  - *EP bundle patent:* we created a binary variable that indicates whether a patent is a European bundle patent (EP).
  - *PCT application:* we created a binary variable that indicates whether a patent is an international patent application (PCT).
  - *Accelerated examination requested:* we created a binary variable that indicates whether a patent holder requested accelerated examination at the EPO.
  - *Grant lag (difference from mean in days):* we calculated a patent's grant lag as the time between start of examination and grant of the patent less the mean of the average grant lag by patent office.
  - *Age of patent (in years):* we calculated a patent's age as the time between the filing of the application (priority) and the start of the infringement proceeding.
- **Invalidity history**
  - *Patent solidified through opposition proceeding:* we created a binary variable that indicates whether a patent went through (and survived) an opposition proceeding prior to the infringement proceeding.
  - *Patent challenged through invalidity proceeding:* we created a binary variable that indicates whether a patent's validity was challenged in an invalidity proceeding prior to the infringement proceeding.
  - *Patent solidified through invalidity proceeding:* we created a binary variable that indicates whether a patent's validity was confirmed by adjudication in an invalidity proceeding prior to the infringement proceeding.
- **Proceeding**
  - *Parallel opposition proceeding:* we created a binary variable that indicates whether a patent is subject to a pending opposition proceeding parallel to the infringement proceeding.

– *Litigation value (in th€):* the litigating parties specify the value of the case on the claim form.

– *Multi-jurisdictional litigation:* we identified court cases where the same patent (family) is litigated in multiple jurisdictions (France, Germany, the Netherlands, the U.K.). This information is only available for the period 2000-2008.

F Appendix: Figures

Figure A-1: Court structure in Germany's patent litigation system (Cremers et al., 2016, amended)

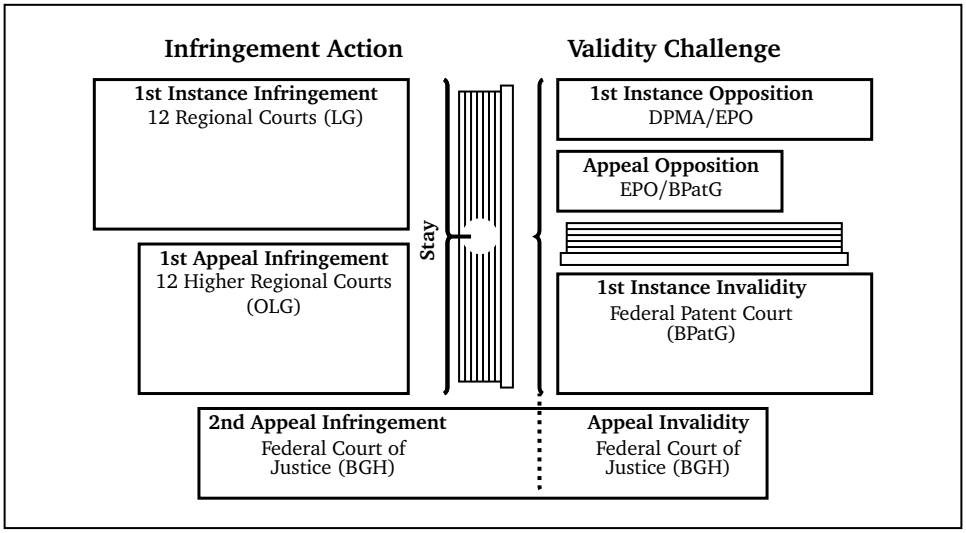


Figure A-2: Court structure in U.K.'s patent litigation system (Cremers et al., 2016, amended)

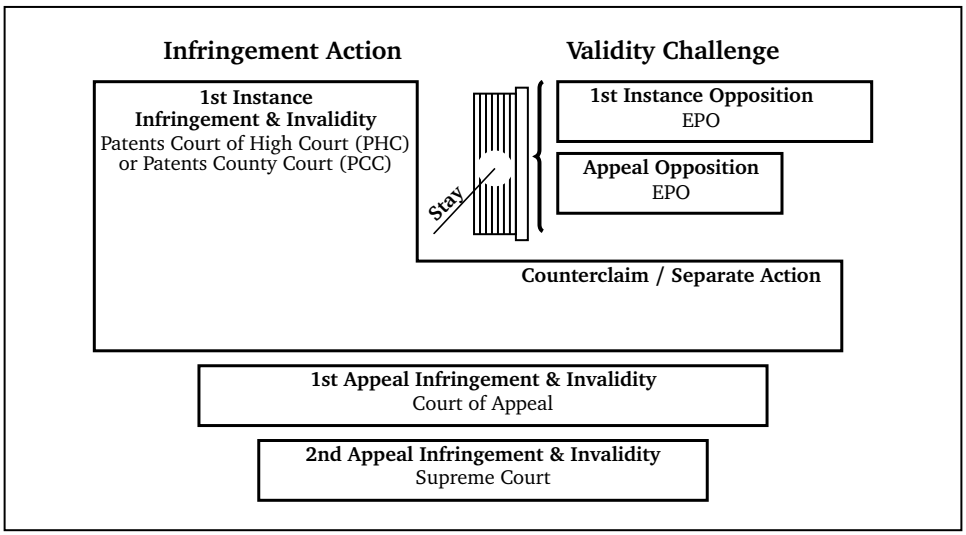
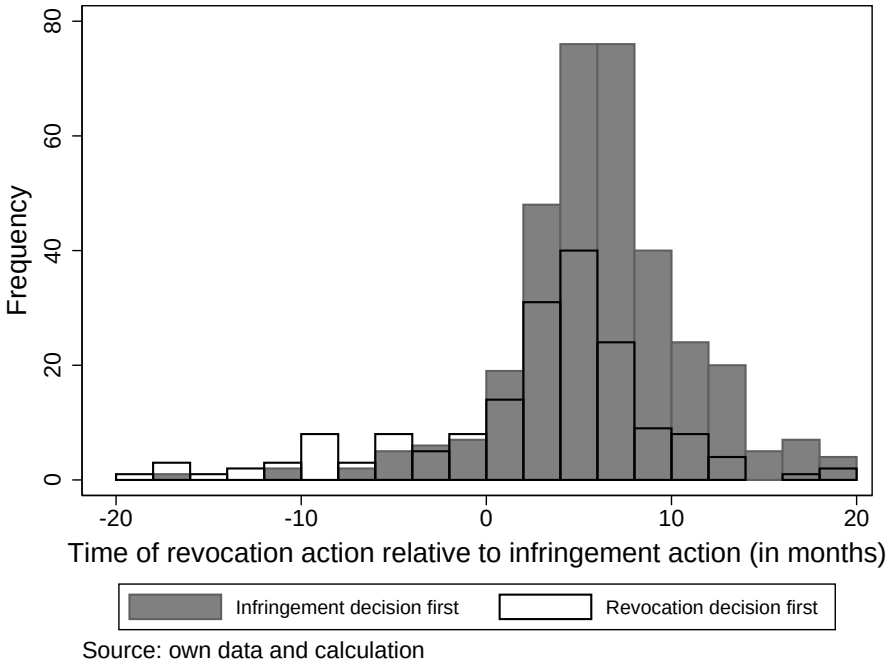
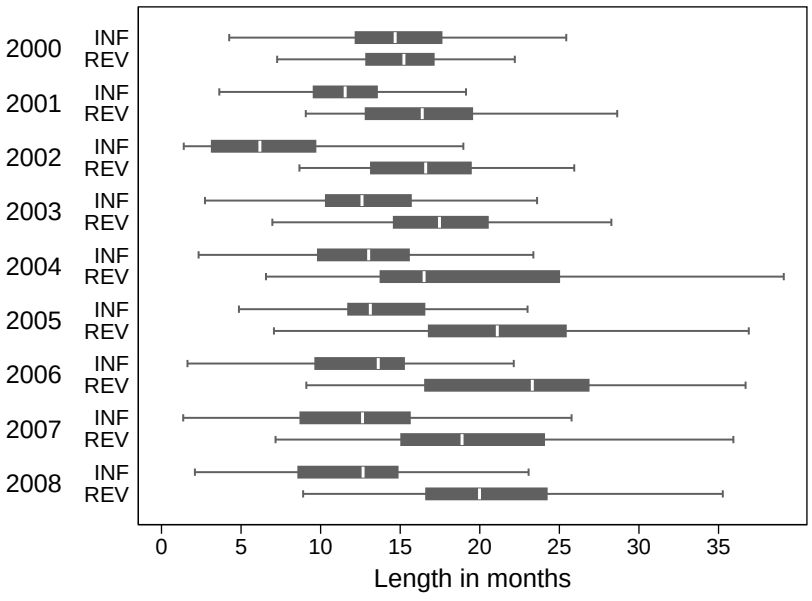


Figure A-3: Timing of infringement and invalidity actions in parallel proceedings



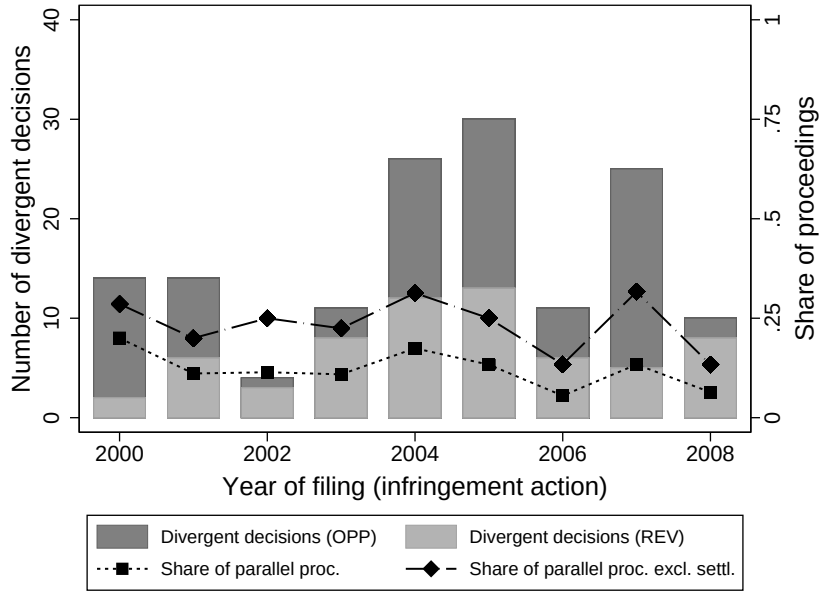
Source: own data and calculation

Figure A-4: Length of (first instance) infringement proceedings and invalidity proceedings by year



Source: own data and calculation

Figure A-5: Number and share of divergent decisions over time



Source: own data and calculation

Notes: Only parallel proceedings with outcome in infringement proceeding first. Share of parallel proceedings excluding settlements includes settlements in the infringement but not invalidity proceeding.

G Appendix: Tables

Table A-1: 'Invalid but Infringed' – anecdotal evidence

#	Infringement		Patent holder	Alleged infringer	Patent	Technology	Invalidation	
	Date	Court					Date	Court
1	30-Apr-02	LG DU	Elmag SpA	Hymmen-Hackemack GmbH	DE19700636	Process engineering	11-Dec-07	BGH
2	13-Feb-07	LG DU	Datalogic S.p.A.	Sick AG	EP0851376	Barcode	13-Mar-08	BPatG
3	10-Jul-07	LG DU	Dürkopp Adler AG	AMF Reece CR, s.r.o.	DE69019972	Electronics	21-Jan-10	BPatG
4	31-Jul-07	LG DU	VistaPrint Technologies Ltd.	unitedprint.com AG	EP0852359	Web-to-print	13-Nov-08	BPatG
5	27-Feb-09	LG MA	IPCom GmbH & Co. KG	HTC Corp.	EP1186189	Telecommunication	1-Dec-10	BPatG
6	11-May-10	LG DU	austriamicrosystems	Melexis GmbH	EP0916074	Electronics	9-Dec-10	BPatG
7	13-Feb-07	LG DU	Pilz GmbH & Co. KG	Sick AG	EP1362269	Electronics	21-Jan-08	EPO
8	11-Dec-07	LG DU	Dr. Johannes Heidenhain GmbH	iC-Haus GmbH, Hengstler GmbH	EP1168120	Electronics	14-Sep-10	EPO

Table A-2: Final outcome to divergent decisions

	Invalidity outcome			
Infringement outcome	reversed	settled	binding	Total
reversed	2	0	6	8
	1.4%	0.0%	4.1%	5.5%
settled	8	11	37	56
	5.5%	7.6%	25.5%	38.6%
binding	13	6	62	81
	9.0%	4.1%	42.8%	55.9%
Total	23	17	105	145
	15.8%	11.7%	72.4%	100.0%

Notes: Sample: The sample consists of all infringement proceedings with a divergent decision. The unit of observation is at the patent in each infringement proceeding. The observable outcome of oppositions is by definition binding. Settlements are broadly defined and include withdrawn appeals.
White area: divergent decisions eventually reversed by the respective appeals court.
Light gray-shaded area: divergent decisions where at least one appeal proceeding ended with a settlement.
Dark gray-shaded area: divergent decisions that remained unaltered due to lack of appeal or an affirmative decision by the appeals court.

Table A-3: Summary statistics grouped by parallel invalidity proceeding

	No parallel invalidity proc.				Parallel invalidity pro.			
	Mean	Std. err.	Min	Max	Mean	Std. err.	Min	Max
Germany	N=1,597				N=932			
Alleged infringer								
Micro	0.12	0.32	0	1	0.08	0.27	0	1
Small	0.17	0.37	0	1	0.14	0.35	0	1
Medium	0.27	0.45	0	1	0.25	0.43	0	1
Large	0.44	0.50	0	1	0.53	0.50	0	1
Germany	0.71	0.45	0	1	0.82	0.38	0	1
Europe (excl. Germany)	0.23	0.42	0	1	0.16	0.36	0	1
World (excl. Europe)	0.06	0.24	0	1	0.02	0.15	0	1
Number of parties	1.06	0.33	1	6	1.08	0.56	1	15
Multinational group	0.07	0.25	0	1	0.13	0.34	0	1
Top legal representative	0.43	0.49	0	1	0.61	0.49	0	1
Patent holder								
Non-practicing entity	0.15	0.35	0	1	0.12	0.32	0	1
Micro	0.14	0.34	0	1	0.13	0.33	0	1
Small	0.10	0.30	0	1	0.11	0.32	0	1
Medium	0.16	0.37	0	1	0.16	0.37	0	1
Large	0.60	0.49	0	1	0.60	0.49	0	1
Germany	0.53	0.50	0	1	0.53	0.50	0	1

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Table A-3 – continued from previous page

	No parallel invalidity proceeding				Parallel invalidity proceeding			
Variables	Mean	Std. err.	Min	Max	Mean	Std. err.	Min	Max
Europe (excl. Germany)	0.26	0.44	0	1	0.31	0.46	0	1
World (excl. Europe)	0.21	0.41	0	1	0.16	0.37	0	1
Top legal representative	0.72	0.45	0	1	0.73	0.44	0	1
Invalidity history								
Patent solidified (opp. proc.)	0.15	0.36	0	1	0.20	0.40	0	1
Patent challenged (rev. proc.)	0.12	0.32	0	1	0.05	0.23	0	1
Patent solidified (rev. proc.)	0.04	0.19	0	1	0.02	0.13	0	1
Proceeding								
Parallel opposition proceeding	0.06	0.24	0	1	0.03	0.17	0	1
Litigation value (in th €)	1409.73	2827.36	0	30000	1202.04	2495.29	2	38348
Multi-jurisdictional litigation	0.03	0.18	0	1	0.05	0.22	0	1
Year of infringement action	2004.60	2.52	2000	2008	2004.50	2.43	2000	2008
Length of proceeding (in days)	372.64	330.08	0	3847	613.36	534.13	0	3847
LG Düsseldorf	0.72	0.45	0	1	0.68	0.46	0	1
LG Mannheim	0.21	0.41	0	1	0.25	0.43	0	1
LG Munich	0.07	0.26	0	1	0.07	0.25	0	1
LG judgment appealed	0.34	0.47	0	1	0.58	0.49	0	1
Patent characteristics								
Forward citations (in first 3 years)	3.19	6.49	0	151	2.98	6.29	0	86
Backward citations (patents)	3.43	3.08	0	25	3.68	3.60	0	32
Backward citations (non-patent)	0.74	1.74	0	22	0.91	2.08	0	17
IPC subclasses count	3.27	3.31	1	34	2.95	2.68	1	20
Family size (DOCDB)	10.62	13.92	1	255	9.90	10.62	1	74
EP bundle patent	0.74	0.44	0	1	0.72	0.45	0	1
PCT application	0.21	0.41	0	1	0.24	0.43	0	1
Year of filing (priority)	1991.99	4.81	1979	2004	1992.12	4.75	1978	2005
Accelerated examination requested	0.13	0.34	0	1	0.17	0.37	0	1
Grant lag (diff. from mean in months)	3.05	20.90	-84	106	3.16	21.22	-40	112
Age of patent (in years)	11.77	4.49	2	25	11.48	4.36	1	23
Technology area								
Electrical engineering	0.31	0.46	0	1	0.24	0.43	0	1
Instruments	0.10	0.30	0	1	0.15	0.36	0	1
Chemistry	0.11	0.31	0	1	0.13	0.34	0	1
Mechanical engineering	0.31	0.46	0	1	0.30	0.46	0	1
Other	0.17	0.38	0	1	0.18	0.38	0	1
U.K.		N=142				N=319		
Alleged infringer								
Micro	0.13	0.33	0	1	0.14	0.35	0	1
Small	0.08	0.28	0	1	0.10	0.30	0	1
Medium	0.15	0.36	0	1	0.07	0.26	0	1
Large	0.63	0.48	0	1	0.68	0.47	0	1

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Table A-3 – continued from previous page

	No parallel invalidity proceeding				Parallel invalidity proceeding			
Variables	Mean	Std. err.	Min	Max	Mean	Std. err.	Min	Max
Germany	0.80	0.40	0	1	0.87	0.34	0	1
Europe (excl. UK)	0.03	0.17	0	1	0.10	0.30	0	1
World (excl. Europe)	0.15	0.36	0	1	0.03	0.17	0	1
Top legal representative	0.42	0.49	0	1	0.42	0.49	0	1
Non-practicing entity	0.08	0.28	0	1	0.09	0.29	0	1
Patent holder								
Non-practicing entity	0.15	0.35	0	1	0.12	0.32	0	1
Micro	0.15	0.36	0	1	0.11	0.31	0	1
Small	0.04	0.20	0	1	0.04	0.19	0	1
Medium	0.02	0.14	0	1	0.04	0.19	0	1
Large	0.79	0.41	0	1	0.82	0.39	0	1
Germany	0.27	0.45	0	1	0.41	0.49	0	1
Europe (excl. Germany)	0.54	0.50	0	1	0.21	0.41	0	1
World (excl. Europe)	0.13	0.34	0	1	0.35	0.48	0	1
Top legal representative	0.45	0.50	0	1	0.45	0.50	0	1
Invalidity history								
Patent solidified (opp. proc.)	0.09	0.29	0	1	0.07	0.25	0	1
Proceeding								
Parallel opposition proceeding	0.09	0.29	0	1	0.22	0.41	0	1
Litigation value (in th €)	114.15	1092.80	0	13000	45.17	200.39	0	2000
Year of infringement action	2009.53	3.12	2001	2013	2009.08	3.14	2000	2013
PCC court	0.18	0.38	0	1	0.13	0.34	0	1
PCC reform	0.13	0.34	0	1	0.11	0.31	0	1
Patent characteristics								
Forward citations (in first 3 years)	4.05	8.74	0	65	3.05	6.92	0	38
Backward citations (patents)	3.92	3.94	0	27	3.14	3.53	0	18
Backward citations (non-patent)	1.13	3.09	0	30	1.21	3.33	0	30
IPC subclasses count	3.70	4.00	0	20	3.33	4.01	0	36
Family size (DOCDB)	15.86	16.93	0	80	20.13	20.08	0	136
EP bundle patent	0.78	0.41	0	1	0.74	0.44	0	1
PCT application	0.27	0.44	0	1	0.46	0.50	0	1
Year of filing (priority)	1996.13	6.25	1984	2009	1997.86	5.71	1981	2011
Accelerated examination requested	0.21	0.41	0	1	0.28	0.45	0	1
Grant lag (diff. from mean in months)	7.64	21.33	-36	68	-0.55	21.93	-44	105
Age of patent (in years)	12.45	5.92	0	25	10.53	5.23	0	25
Technology area								
Electrical engineering	0.43	0.50	0	1	0.31	0.46	0	1
Instruments	0.06	0.24	0	1	0.11	0.31	0	1
Chemistry	0.18	0.38	0	1	0.18	0.39	0	1
Mechanical engineering	0.17	0.38	0	1	0.27	0.44	0	1
Other	0.11	0.31	0	1	0.11	0.31	0	1

Notes: The sample consists of all infringement proceedings without judgment during the first 120 days. The unit of observation is at the patent-case level, i.e., each patent in each infringement proceeding is treated as a separate case.

Table A-4: Validity challenge and settlement rates by jurisdiction

	Validity challenge		Settlement	
	DE	UK	DE	UK
Technology area				
Electrical engineering	222	99	349	57
	31.0%	61.9%	63.8%	56.4%
Instruments	140	34	79	8
	47.3%	79.1%	35.6%	34.8%
Chemistry	123	59	96	9
	41.4%	70.2%	40.5%	15.5%
Mechanical engineering	281	85	246	22
	36.2%	78.0%	38.3%	34.9%
Other	166	34	150	11
	37.4%	69.4%	40.4%	39.3%
Alleged infringer				
Micro	71	46	87	13
	27.7%	71.9%	37.7%	39.4%
Small	135	32	141	10
	33.5%	72.7%	41.8%	33.3%
Medium	233	23	267	22
	34.8%	51.1%	49.4%	73.3%
Large	493	217	425	67
	41.1%	70.7%	46.7%	34.7%
Domestic	765	278	604	91
	40.2%	71.1%	40.7%	38.1%
Europe (excl. domestic)	146	31	262	2
	28.7%	88.6%	61.4%	11.1%
World (excl. Europe)	21	9	54	16
	17.7%	29.0%	49.5%	61.6%

Notes: The sample used in column 1 consists of all DE infringement proceedings without judgment during the first 120 days. The sample used in column 2 consists of all UK infringement proceedings. The sample used in column 3 consists of all DE infringement proceedings without judgment during the first 120 days or settlement after the filing of an invalidity action. The sample used in column 4 consists of all infringement proceedings without settlement after the filing of a validity challenge counter-claim. The unit of observation is at the patent-case-level.

Table A-5: Probit model results: incidence of invalidity action (UK)

	(1) Action filed		(2) Action filed		(3) Action filed		(4) Action filed	
Alleged infringer								
Small (d)	−0.007	(0.101)	−0.172	(0.144)	−0.164	(0.138)	−0.173	(0.146)
Medium (d)	0.044	(0.102)	0.031	(0.092)	0.010	(0.102)	0.039	(0.093)
Large (d)	0.059	(0.077)	−0.018	(0.077)	−0.027	(0.078)	−0.039	(0.080)
Europe (excl. Germany) (d)			0.124*	(0.065)	0.178***	(0.041)	0.163***	(0.047)
World (excl. Europe) (d)			−0.500***	(0.172)	−0.468**	(0.196)	−0.492***	(0.180)
Top legal representative (d)					0.003	(0.061)	0.019	(0.062)
Patent holder								
Non-practicing entity (d)			−0.120	(0.097)	−0.178	(0.109)	−0.219*	(0.115)
Small (d)			0.059	(0.088)	0.041	(0.094)	0.051	(0.090)
Medium (d)			0.166***	(0.052)	0.149***	(0.057)	0.151***	(0.054)
Large (d)			0.298**	(0.118)	0.334***	(0.119)	0.343***	(0.120)
Europe (excl. Germany) (d)			−0.250**	(0.099)	−0.257**	(0.102)	−0.240**	(0.106)
World (excl. Europe) (d)			0.036	(0.084)	0.063	(0.079)	0.058	(0.083)
Top legal representative (d)					−0.222***	(0.074)	−0.243***	(0.078)
Invalidity history								
Patent solidified (opp. proc.) (d)					0.046	(0.085)	0.069	(0.094)
Proceeding								
Parallel opposition proceeding (d)			0.102*	(0.058)	0.137***	(0.048)	0.138***	(0.048)
Litigation value (in th €, log)			0.023	(0.014)	−0.005	(0.031)	−0.001	(0.032)
Controls								
Year effects	Yes		Yes		Yes		Yes	
Technology effects	Yes		Yes		Yes		Yes	
Court effects	No		Yes		Yes		Yes	
Patent characteristics	Yes		Yes		Yes		Yes	
Pseudo R^2	0.208		0.325		0.391		0.391	
Observations	461		461		461		411	

Marginal effects reported; Case-clustered standard errors in parentheses;

(d) for discrete change of dummy variable from 0 to 1; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: The sample consists of all infringement proceedings without settlement/judgment during the first 90 days counting from the filing date of the case. The dependent variable is equal to one if the defendant challenged validity through an invalidity counterclaim in the same proceedings. The unit of observation is at the patent-case level. Cases with multiple patents are weighted to account for oversampling. Sample in column (4) excludes patents with a parallel infringement proceeding in Germany. Baseline litigant size: *micro*. Baseline litigant residence: *UK*. Patent characteristics not reported in the table include patent age (in years), patent age (in years, squared), patent and non-patent backward citations, forward citations (in first 3 years), number of International Patent Classification (IPC) subclasses, patent family size, grant lag (diff. from mean in months), indicators for international PCT applications, EP patents, and accelerated examination. Technology effects include indicators for each main technology area (electrical engineering, instruments, chemistry, mechanical engineering, other). Court effects include an indicator variable for the IPEC.

Table A-6: Probit model results: incidence of settlement (UK)

	(1) Case settled	(2) Case settled	(3) Case settled	(4) Case settled
Alleged infringer				
Small (d)	0.074 (0.160)	0.348* (0.184)	0.467*** (0.167)	0.491*** (0.175)
Medium (d)	0.134 (0.198)	0.258 (0.217)	0.362* (0.210)	0.529*** (0.192)
Large (d)	−0.079 (0.120)	0.060 (0.134)	0.124 (0.129)	0.232* (0.134)
Europe (excl. Germany) (d)		−0.273*** (0.096)	−0.312*** (0.076)	−0.311*** (0.079)
World (excl. Europe) (d)		0.397** (0.195)	0.361 (0.224)	0.319 (0.249)
Top legal representative (d)			0.140 (0.128)	0.269* (0.149)
Patent holder				
Non-practicing entity (d)		−0.135 (0.124)	−0.131 (0.128)	−0.118 (0.128)
Small (d)		−0.207 (0.148)	−0.238** (0.119)	−0.257** (0.112)
Medium (d)		−0.252* (0.131)	−0.282*** (0.098)	−0.319*** (0.072)
Large (d)		−0.337* (0.175)	−0.325* (0.192)	−0.370* (0.217)
Europe (excl. Germany) (d)		0.245* (0.149)	0.253* (0.150)	0.193 (0.155)
World (excl. Europe) (d)		−0.005 (0.149)	−0.002 (0.152)	−0.066 (0.152)
Top legal representative (d)			−0.034 (0.111)	0.023 (0.129)
Invalidity history				
Patent solidified (opp. proc.) (d)			−0.159 (0.121)	−0.316*** (0.061)
Proceeding				
Parallel opposition proceeding (d)		−0.275*** (0.084)	−0.296*** (0.079)	−0.330*** (0.076)
Litigation value (in th €, log)		−0.029 (0.027)	−0.148** (0.066)	−0.191*** (0.072)
Controls				
Year effects	Yes	Yes	Yes	Yes
Technology effects	Yes	Yes	Yes	Yes
Court effects	No	Yes	Yes	Yes
Patent characteristics	Yes	Yes	Yes	Yes
Pseudo R^2	0.187	0.327	0.353	0.381
Observations	246	246	246	207

Marginal effects reported; Case-clustered standard errors in parentheses;

(d) for discrete change of dummy variable from 0 to 1; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: The sample consists of all infringement proceedings without settlement/judgment during the first 90 days counting from the filing date of the case and without settlement after the filing of a patent validity counterclaim. The dependent variable is equal to one if the defendant challenged validity through an invalidity counterclaim in the same proceedings. The unit of observation is at the patent-case level. Cases with multiple patents are weighted to account for oversampling. Sample in column (4) excludes patents with a parallel infringement proceeding in Germany. Baseline litigant size: *micro*. Baseline litigant residence: *UK*. Patent characteristics not reported in the table include patent age (in years), patent age (in years, squared), patent and non-patent backward citations, forward citations (in first 3 years), number of International Patent Classification (IPC) subclasses, patent family size, grant lag (diff. from mean in months), indicators for international PCT applications, EP patents, and accelerated examination. Technology effects include indicators for each main technology area (electrical engineering, instruments, chemistry, mechanical engineering, other). Court effects include an indicator variable for the IPEC.

Table A-7: Invalid but Infringed – Example cases

	First instance					Appeal			Patent		
Proc.	Case number	Filing date	Litigation value	Decision	Decision date	Case number	Outcome	Appeal date	Publication. No.	Application date	Technology
INF	DU 4 O 219/00	01-Apr-00	511,300	infringed	10-May-01	2 U 95/01	settlement	12-Apr-07	EP0203206	02-May-85	Chemical engineering
REV	2 Ni 42/00 (EU) et al.	02-Nov-00		invalidated	27-Feb-02	X ZR 156/02	aff: invalidated	30-Jan-07			
INF	DU 4 O 248/01	19-Jul-01	76,693	infringed	28-May-02	2 U 84/02	n/a	n/a	EP0912130	01-Apr-97	Furniture and games
REV	3 Ni 51/01 (EU)	05-Sep-01		partly invalidated	21-Jan-03						
INF	DU 4 O 356/01	07-Jul-01	1,022,583	infringed	31-Mar-05				EP0101552	05-Jul-83	Electrical machinery
REV	2 Ni 63/04 (EU) et al.	01-Dec-04		partly invalidated	16-Mar-07						
INF	DU 4A O 233/01	04-Jul-01	500,000	infringed	25-Mar-03	2 U 50/03	settlement	n/a	EP0692562	12-Jul-94	Textile and paper
REV	2 Ni 14/03 (EU)	03-Feb-03		invalidated	30-Sep-04	n/a	withdrawn	14-Mar-05			
INF	DU 4A O 234/01	05-Jul-01	511,292	infringed	10-Jan-02	2 U 27/02	settlement	5-Apr-07	EP0646362	20-Sep-94	Medical technology
REV	4 Ni 28/01 (EU)	07-Nov-01		invalidated	12-Nov-02	X ZR 16/03	amd: partly invalidated	25-Apr-06			
INF	DU 4A O 33/01	26-Dec-00	1,022,600	partly infringed	05-Feb-02	2 U 36/02	settlement	12-Jul-02	EP0548475	26-Sep-92	Other consumer goods
REV	2 Ni 47/01 (EU)	07-Dec-01		invalidated	08-May-03	X ZR 115/03	amd: partly invalidated	01-Apr-08			
INF	DU 4A O 453/01	17-Jan-02	1,500,000	infringed	14-Jan-03	2 U 25/03	settlement	2-Apr-04	DE3639669	20-Nov-86	Electrical machinery
REV	2 Ni 26/02	16-Aug-02		partly invalidated	20-Nov-03	n/a	withdrawn	08-Sep-04			
INF	DU 4A O 185/03	10-May-03	500,000	partly infringed	08-Jul-04				DE3801617	21-Jan-88	Civil engineering
REV	1 Ni 9/04	10-Mar-04		invalidated	31-May-05	n/a	withdrawn	04-Oct-06			
INF	DU 4A O 282/03	08-Jul-03	500,000	infringed	20-Jul-04	I-2 U 81/04	settlement	23-Jan-06	EP0947279	25-Feb-99	Machine tools
REV	2 Ni 3/04 (EU)	08-Jan-04		invalidated	19-May-05	X ZR 107/05	aff: invalidated	30-Jun-09			
INF	DU 4A O 371/03	03-Sep-03	100,000	partly infringed	28-Sep-04	I-2 U 100/04	settlement	n/a	EP0654427	16-Nov-94	Handling
REV	1 Ni 2/04 (EU)	22-Dec-03		invalidated	14-Mar-05						
INF	DU 4B O 346/03	01-Sep-03	350,000	infringed	14-Dec-04				EP0291194	26-Apr-88	Measurement
REV	3 Ni 11/01 (EU) et al.	22-Sep-04		invalidated	07-Jun-05	X ZR 154/05	amd: partly invalidated	05-Nov-08			
INF	DU 4B O 458/03	28-Nov-03	500,000	infringed	14-Oct-04	I-2 U 105/04	settlement	n/a	EP0781234	12-Sep-95	Handling
REV	1 Ni 14/04 (EU)	07-May-04		invalidated	07-Mar-06	n/a	withdrawn	22-Apr-10			

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Table A-7 – continued from previous page

	First instance					Appeal			Patent		
Proc.	Case number	Filing date	Litigation value	Decision	Decision date	Case number	Outcome	Outcome date	Publn. No.	Application date	Technology
INF	DU 4A O 152/04	25-Mar-04	500,000	infringed	10-May-05	I-2 U 99/05	settlement	24-Feb-10	EP0706338	16-Jun-94	Furniture and games
REV	4 Ni 64/04 (EU)	14-Dec-04		partly invalidated	28-Mar-06						
INF	DU 4A O 453/04	18-Nov-04	100,000	infringed	26-Jul-05	I-2 U 101/05	settlement	27-Oct-11	EP0753420	09-Jul-96	Transport
REV	3 Ni 48/07 (EU) et al.	21-Feb-05		partly invalidated	16-May-08	X ZR 75/08	aff: partly invalidated	12-Jul-11			
INF	DU 4B O 18/04	04-Nov-03	500,000	infringed	14-Dec-04				EP0291194	26-Apr-88	Measurement
REV	3 Ni 39/04 (EU) et al.	22-Sep-04		invalidated	07-Jun-05	X ZR 154/05	amd: partly invalidated	05-Nov-08			
INF	DU 4B O 435/04	06-Nov-04	2,000,000	infringed	21-Apr-05	n/a	settlement	n/a	EP0755348	07-Feb-95	Handling
REV	1 Ni 4/04 (EU)	22-Dec-03		invalidated	22-Feb-06	X ZR 79/06	withdrawn	26-Aug-10			
INF	DU 4A O 122/05	10-Mar-05	500,000	partly infringed	09-Feb-06	I-2 U 27/06	not infringed	25-Mar-10	EP0361155	06-Sep-89	Civil engineering
REV	2 Ni 38/05 (EU)	02-Aug-05		invalidated	29-Oct-07	XA ZR 6/08	amd: partly invalidated	02-Apr-09			
INF	DU 4A O 253/05	17-May-05	500,000	infringed	20-Jul-06	I-2 U 90/06	settlement	29-Aug-11	EP0591132	23-Jul-90	Medical technology
REV	4 Ni 40/06 (EU)	22-May-06		invalidated	14-Oct-08	n/a	withdrawn	29-Aug-11			
INF	DU 4A O 394/05	31-Aug-05	500,000	infringed	29-Aug-06	I-2 U 115/06	settlement	18-Jul-08	EP0280340	18-Jan-88	Textile and paper
REV	2 Ni 2/06 (EU)	11-Jan-06		partly invalidated	20-May-08						
INF	DU 4A O 452/05	11-Sep-05	500,000	infringed	21-Feb-06	I-2 U 25/06	not infringed	6-Sep-07	EP0676763	04-Jul-95	Audio-visual technology
REV	2 Ni 1/06 (EU)	05-Jan-06		invalidated	14-Feb-08	XA ZR 85/08	amd: partly invalidated	29-Jul-10			
INF	DU 4A O 484/05	04-Nov-05	250,000	infringed	09-May-06	I-2 U 60/06	infringed	27-Sep-06	DE19945719	23-Sep-99	Other special machines
REV	4 Ni 7/06	25-Jan-06		invalidated	08-Jan-08	X ZR 49/08	aff: invalidated	17-Nov-09			
INF	DU 4A O 552/05	23-Nov-05	500,000	infringed	13-Feb-07	I-2 U 14/07	settlement	4-Nov-10	EP0851376	30-Dec-96	Computer technology
REV	2 Ni 25/06 (EU)	22-Jun-06		invalidated	10-Jun-08	n/a	withdrawn	10-Nov-10			
INF	DU 4A O 62/05	15-Feb-05	1,000,000	infringed	09-Mar-06	I-2 U 28/06	settlement	31-Aug-12	EP0821784	18-Apr-96	Measurement
REV	4 Ni 45/05 (EU)	03-Sep-05		partly invalidated	02-May-07	XA ZR 84/07	amd: partly invalidated	25-Nov-10			
INF	DU 4B O 128/05	12-Mar-05	500,000	infringed	14-Mar-06	I-2 U 39/06	settlement	27-Aug-10	EP0337612	17-Mar-89	Medical technology
REV	4 Ni 52/05 (EU)	10-Oct-05		invalidated	26-Jun-07	XA ZR 126/07	sent back to BPatG	13-Jul-10			
INF	DU 4B O 76/05	03-Feb-05	1,000,000	infringed	16-May-06	I-2 U 57/06	settlement	4-Dec-07	EP0350528	15-Jul-88	Thermal processing

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	First instance					Appeal			Patent		
Proc.	Case number	Filing date	Litigation value	Decision	Decision date	Case number	Outcome	Outcome date	Publn. No.	Application date	Technology
REV	1 Ni 8/06 (EU)	27-Apr-06		invalidated	20-Mar-07	XA ZR 66/07	amd: partly invalidated	14-Jan-10			
INF	DU 4A O 263/06	22-Jul-06	200,000	partly infringed	14-Aug-07	I-2 U 83/07	settlement	19-Aug-09	EP1098706	08-Jul-99	Chemical engineering
REV	3 Ni 48/06 (EU)	30-Jun-06		partly invalidated	29-Apr-08						
INF	DU 4B O 160/06	09-May-06	500,000	partly infringed	22-Jul-08	I-2 U 74/08	settlement	14-Oct-10	DE4337743	05-Nov-93	Civil engineering
REV	3 Ni 77/06	07-Dec-06		invalidated	13-Jan-09	n/a	withdrawn	04-Oct-10			
INF	DU 4B O 279/06	15-Jul-06	1,000,000	infringed	31-Jul-07				EP0852359	20-Dec-96	Computer technology
REV	2 Ni 30/07 (EU)	11-Jun-07		invalidated	13-Nov-08	X ZR 46/09	aff: invalidated	22-Mar-12			
INF	DU 4A O 136/07	22-May-07	500,000	partly infringed	05-Jun-08	I-2 U 67/08	settlement	10-Nov-11	EP0355391	18-Jul-89	Medical technology
REV	4 Ni 65/07 (EU)	29-Oct-07		invalidated	01-Dec-09	n/a	withdrawn	30-Nov-10			
INF	DU 4A O 158/07	14-Jul-07	400,000	infringed	29-Apr-08	I-2 U 47/08	partly infringed	2-Jul-09	EP0885676	13-May-98	Machine tools
REV	4 Ni 14/08 (EU)	07-Mar-08		partly invalidated	13-Oct-09	n/a	withdrawn	08-Jun-12			
INF	DU 4B O 284/07	27-Nov-07	1,000,000	infringed	27-Nov-08	I-2 U 2/09	settlement	7-May-09	EP0825350	07-Aug-97	Mechanical elements
REV	10 Ni 6/08 (EU)	08-Oct-08		partly invalidated	17-Dec-09						
INF	DU 4B O 310/07	13-Dec-07	500,000	partly infringed	05-Mar-09	I-2 U 44/09	settlement	4-May-11	EP0835737	08-Oct-97	Other special machines
REV	4 Ni 80/08 (EU)	01-Aug-08		invalidated	28-Sep-10						
INF	DU 4A O 152/08	29-Jan-08	750,000	infringed	07-May-09	I-2 U 71/09	infringed	n/a	EP0500590	10-Oct-90	Surface technology
REV	3 Ni 62/08 (EU)	16-Oct-08		partly invalidated	05-May-10						
INF	DU 4A O 270/08	01-Nov-08	250,000	partly infringed	22-Dec-09	I-2 U 18/10	settlement	1-Sep-11	DE19727527	30-Jun-97	Measurement
REV	5 Ni 123/09	06-May-09		partly invalidated	03-Feb-11						
INF	DU 4B O 155/08	25-Jun-08	500,000	infringed	14-Jul-09	I-2 U 97/09	settlement	16-Dec-10	DE19500529	11-Jan-95	Medical technology
REV	4 Ni 40/08	20-Mar-08		invalidated	16-Mar-10	n/a	withdrawn	10-Dec-10			
INF	DU 4B O 98/08	25-Mar-08	500,000	infringed	17-Jul-09	I-2 U 101/09	settlement	31-Jan-12	DE102005043978	15-Sep-05	Electrical machinery
REV	4 Ni 68/08	26-Jun-08		invalidated	22-Jun-10						