

PART III: CONCLUSIONS

Part I of this work described the patenting procedure both in the US and in Europe, analysed the behavioural duties of patent applicants in both jurisdictions and concluded by examining the advantages and drawbacks of both systems.

Part II, on the other hand, dealt with the behaviour of patent applicants from a competition law perspective. To that end, this part of the work briefly described the fundamental aims and components of competition law, explained the general interaction between intellectual property rights and competition, analysed the relevant case law in the EU and in the US on the specific concerns raised by fraudulently obtained patents and concluded by exploring the appropriate theory of harm.

By way of conclusion, this Part III intends to provide a succinct summary of the complete analysis performed in this work, as well as to briefly explain the results and recommendations that may be drawn and on which further study and practice could continue.

Chapter VII: Summary and Conclusions

At the very beginning of this work, when referring to the *Servier* case heard by the UK courts, a decision from J Jacob was cited raising a handful of appealing remarks surrounding the examination procedure before the patent office, namely the concerns that can emerge from a dishonest conduct by a patent applicant and the legal remedies that are or should be available to offset them. Although the dishonest conduct in that case is far from certain and was in fact called into question at a later stage by the General Court,¹⁵⁰³ those general remarks essentially pertained to two basic challenges, the first one connected to the available remedies under patent law itself and the other one to the role that competition law should play in that particular scenario.

The topic has not traditionally attracted much attention within European courts and scholars, although it seems to have gained some ground ever since—particularly with respect to the application of competition law. In the US, the picture looks quite different. On the one hand, patent applicants have a strict duty of candour which includes, inter alia, the disclosure of relevant information for patentability and US courts are repeatedly asked to delve into these questions within the context of the inequitable conduct defences. On the other hand, the US Supreme Court has expressly acknowledged several decades ago that fraud to the patent office can be a source of serious antitrust concern and lower courts and scholars have long strived to develop appropriate legal standards thereto.

Against this backdrop, LJ Jacob's judgment offers a unique opportunity to study these two matters in greater depth. This has been, in point of fact, the main aim of the present work, which has analysed deceptive conducts before the patent office from those two markedly different angles. On one side, it has explored the question as to the alternatives that exist under patent law, either *de lege lata* or *de lege ferenda*, to cope with deceitful conducts before the patent office and has, to that end, critically compared the models in place in the US and in Europe. On the other side, it has explored how competition laws have tackled this kind of behaviour thus far and attempted to identify the appropriate theory of harm in order to develop coherent standards for assessment.

1503 See text in n 2 in ch 1.

1. *The Role of Patent Applicants in the US and in Europe. Duties and Remedies under Patent Law*

It is well known that European and American patent laws have completely different approaches when it comes to the duties imposed upon patent applicants. In fact, US represents a rather isolated case as to the degree of responsibilities imposed upon patent applicants and the severe consequences that a failure to comply with them can have. In times when patent laws around the world become increasingly homogeneous, the question emerges as to why US law remains so different on this particular aspect and whether Europe (or any other jurisdiction with a comparable patent law framework) should learn any lessons from that experience.

A. *The Scenario under US Law. A Strict Duty of Candour and the Inequitable Conduct Doctrine*

The duty of candour that rests upon patent applicants in the US today springs from two main institutions, namely the inequitable conduct doctrine developed by the courts and the specific regulations enacted by the USPTO, the latter overall following the parameters traced by former—but not necessarily congruent with it *in toto*. The origins of the doctrine are rooted in the equity principle of unclean hands, although scholars prevalently perceive it as a tool for optimising the quantity and quality of information available to patent examiners.

Under US law, patent applicants are required to conduct their proceedings in a frank manner and in good faith, which is interpreted to also include the disclosure of all relevant information they are aware of that could be material to patentability. This burden comprises not only own disclosures, such as prior uses or exhibitions, but also publications or patents emanating from third parties, and a failure to comply with this duty can have drastic consequences on patentees. Indeed, if courts find that patentees have knowingly withheld relevant information during patent prosecution, or that they have submitted false or misleading data, even in connection with one single claim, the whole patent can be rendered unenforceable under the inequitable conduct doctrine, without even analysing whether the patent is valid or has been infringed—and even if the patent covers a genuine invention and would have otherwise been declared valid.

In order to be reputed inequitable, the conduct of the patentees must meet two central requirements: intent and materiality. In other words, the patent applicant must have had the specific intention to mislead the patent

office and such conduct must have had a significant effect on the decision of the examiner. The exact characterisation of these elements, however, has been fiercely debated and different courts often use different standards, hence leading to a high level of legal uncertainty over the specific scope of patent applicants' duties.

Over time, due to the ambiguity surrounding it and the enormous reward for defendants in case of success, inequitable conduct allegations have become almost a standard plead in US patent litigation, regardless of the merits of the defence. In many lawsuits, the focus actually shifted from core issues, like infringement or validity, to questions more concerned with the morality of the patent applicants and with the minutiae of the patent's procedural history, which also increases the costs for the parties. Be that as it may, few courts or scholars dare to advocate for the complete eradication of the inequitable conduct doctrine, most of them rather suggesting amendments to reduce the number of frivolous suits or a revamp into an economic tool. In recent years, eg, the US Patent Act has incorporated a Supplemental Examination procedure allowing patentees to purge their patents before going to court so as to later avoid inequitable conduct accusations. The Federal Circuit, for its part, rendered an *en banc* decision in *Therasense*¹⁵⁰⁴ in a clear attempt to increase legal certainty and narrow down the circumstances under which inequitable conduct can be found.

B. The Scenario under EU Law

When it comes to the manner in which patent applicants are required to conduct their proceedings before the patent office, two central differences between Europe and the United States are to be noted: the extent of the duties upon the applicants and the legal consequences that a failure to meet them could later have on the patent and on its owner.

Firstly, although European patent applicants are undeniably expected to behave with candour and good faith in their affairs at the patent office, neither the EPC nor the major national patent offices in Europe provide for a stringent duty to disclose relevant prior art such as scientific publications, prior patents, etc. Admittedly, the EPC requires patent applicants to reveal proximate prior art in the specification, when describing the invention, but such a duty has been interpreted rather laxly by the Boards of Appeal of the EPO. The requirement appears to be aimed at ensuring that

1504 *Therasense Inc v Becton, Dickinson & Co* 649 F 3d 1276 (Fed Cir 2011) (*en banc*).

patent specifications disclose sufficient information to the public rather than at imposing a duty to collaborate with the examiners in the search for prior art. The Preparatory Works of the EPC, although not directly approaching the issue, seem to be on the same wavelength. It should be borne in mind, nevertheless, that there are specific circumstances under which applicants are expected to provide the examiners with specific information, particularly in the case of rule 141 EPC with regard to reports produced by foreign patent offices, but the duty remains rather negligible.

Secondly, in addition to the precise scope of the duties that lie upon the patent applicants, stark differences also exist between Europe and the US as to the legal effects that the behaviour at the patent office can later have over the enforceability of the patent as such. In the first place, under the EPC, a patent cannot be declared invalid for the mere fact that the applicant conducted the procedure in a dishonest or deceitful manner, so long as it is not also shown that the patent does not meet one of the patentability criteria. Similarly, those circumstances do not seem to play any role vis-à-vis the enforceability of the patent, as courts in the Member States tend to give short shrift to allegations concerning the circumstances under which patents were granted.

C. Would it be Desirable for Europe to Implement an Increased Duty of Candour or an Inequitable Conduct Doctrine?

At this point, it is worth asking whether the approach taken by US legislators and courts presents any benefits that would make it advisable from a European standpoint—or for any other jurisdiction having a legal framework akin to European laws. As mentioned, there are two essential issues in this regard which, although deeply intertwined, may be set apart and demand to be treated separately. The first one is connected to the extent of duties that are laid upon patent applicants and particularly the question whether they should be required to bring to the examination proceedings information relevant to patentability. The second one refers to the legal consequences that an inadequate prosecution of a patent application may have on the later enforcement of the patent if it were to be granted.

I. *Extent of Patent Applicant's Duties*

It seems undisputable that high quality patents can deliver benefits to all users of the patent system and to general welfare and that in order to issue high quality patents patent offices need to have at their disposal as much information as possible. Hence, at first glance, the idea of extending the patent applicants' duties and compelling them to bring forward background information on the invention appears as a rather logical and appealing approach—particularly considering that they are often knowledgeable on the field of the invention and that the proceedings up to the grant of the patent are, apart from a few exceptions, essentially *ex parte*. A closer look, however, reveals that this apparently straightforward solution may bring forward a number of serious problems.

First, it seems tremendously challenging to define the scope of patent applicants' disclosure duties in clear terms. Should the duty be restricted to relevant information they are aware of? Or should they be compelled to disclose the entirety of the existing prior art relevant to the invention? US practice is inclined towards the former, although both solutions seem to face severe drawbacks. The US approach makes the duty extremely difficult to supervise, as authorities need to investigate in every case whether the applicant was indeed aware of any specific piece of prior art and hence delve into subjective factors. Moreover, it may induce applicants to remain deliberately oblivious to reduce risks. But expecting applicants to disclose all existing prior art wouldn't make things much easier, as it would require them to become absolute experts on their fields and would hence raise their patenting costs significantly. In either case, applicants might be encouraged to err on the side of over-disclosure, which may end up burying important pieces of prior art inside long lists of less relevant information. Besides, the duty of advocacy that lies upon patent attorneys may constitute an additional hurdle in shaping the boundaries of these duties, as they may be required to put on the table arguments that they are later expected to rebut.

Moreover, even if a practical way of implementing such a duty were to be found, the information submitted by the applicants does not necessarily warrant the issuance of higher quality patents. As a matter of fact, in practice US examiners tend to pay very little attention to the background art brought forward by the patent applicants. The reasons are varied and may be related to the examiners' limited allocated time, today's vast sources of information at hand, self-confidence, distrust, etc. Moreover, in the case of the EPO, relevant information overlooked or hidden from the examiners may be promptly revealed by third parties not only via observations but

also later, by filing an opposition. Hence, the practical value of such a duty may be much less significant than first expected.

Finally, it should be borne in mind that, in many cases, patent applicants themselves may be personally interested in having their inventions examined against the closest prior art, since emerging victorious of an accurate examination with relevant prior art is likely to put them in a better position during licensing negotiations or litigation.

In view of the above, any amendment to the current laws in the EPC in connection to the role of the patent applicants during the examination procedure seems ill-advised. At any rate, should proposals be made in this direction, additional empirical research would be required and revisions should only be implemented after very careful consideration of their potential impact on the patent system altogether.

II. Legal Consequences of the Deceitful Conduct

Whatever the extent of the duties ultimately imposed upon patent applicants, a separate though extremely intertwined question arises as to the legal consequences that may derive from a failure to comply with those duties. Needless to say, the stricter the duties the higher the relevance that this question is likely to have. Yet even with less strict rules like those in place in Europe, the question might still be worth asking. Should courts, eg, refuse to enforce a patent for the sole reason that the owner conducted the patent application proceedings in bad faith?

The inequitable conduct doctrine developed by US courts is habitually considered to have evolved from the unclean hands doctrine—a traditional legal principle according to which plaintiffs may be denied legal redress if it is shown that they have behaved in bad faith with respect to the matter of the complaint. This legal principle, however, is also acknowledged in many other jurisdictions where an inequitable conduct doctrine did not ultimately emerge. This fact seems to suggest that the inequitable conduct doctrine is not an inevitable upshot of that legal principle but rather a discretionary interpretation of it followed by US courts.

Yet even if not required by ethical or traditional legal principles, it is open to question whether adopting a similar approach could be nonetheless advisable from a more utilitarian perspective. Indeed, many scholars in the US have argued that the existence of an inequitable conduct defence induces patent applicants to conduct their proceedings with greater candour—which can thus lead to higher quality of patents. The advantages

that may be perceived on the surface, however, are offset when analysing the matter in greater depth.

In the first place, having courts decide on what patent office examiners need appears as a rather oblique and defective way of approaching the patent quality conundrum. Indeed, patent offices are likely to be in a much better position to decide on the kinds of collaboration that they need from patent applicants and court attempts to influence on this issue may configure an inappropriate interference in the administrative process.

Perhaps more importantly, bringing this sort of questions to the table in infringement proceedings is also prone to increase the costs of litigation significantly and to divert the attention from more important issues like the validity of the patent and its infringement. Moreover, in the particular case of the EPC, it has been argued that the hypothetical advantages that an inequitable conduct doctrine could bring may be eclipsed by the post-grant opposition system.

Yet even if there was no post-grant opposition procedure available, a deeper look reveals that the only scenarios in which the inequitable conduct doctrine is qualified to offer additional aid are those where that contribution may not be all that desirable. In arriving at this conclusion, the universe of hypothetical cases should be divided into two categories: (i) cases where the misconduct is tied to an invalid patent (ie, where at least one of the patentability requirements is not met), and (ii) cases where the misconduct is tied to a patent that is nonetheless valid.

In the first scenario, the existence of an inequitable conduct defence appears as clearly superfluous. Challenging the validity of the patent is a much more straightforward defence for the alleged infringer and does not require the court and attorneys to delve into endless subjective questions on what the patent applicants knew or should have known, often many years ago, or what the examiner would have or would have not considered relevant.

In the second scenario, it is not clear whether it is indeed desirable to refuse to enforce a valid patent for the mere fact that the applicant showed a reproachable behaviour. The Federal Circuit in *Therasense* answered in the affirmative, at least with regard to affirmative egregious misconducts, but this approach is debatable at the very least. If an applicant indeed made a worthy invention and a valuable contribution to technological development, refusing to enforce the patent is not necessarily an optimal solution.

That is not to say that reprehensible conducts taking place at the patent office bear no legal significance or that they should go unpunished. If the requirements are met, the patent attorneys involved in the procedure

could be subject to sanctions by the corresponding disciplinary boards—and even criminal sanctions could apply in the most severe cases. That, however, does not imply that the question must be brought to every patent infringement case.

2. *The Patent Applicant's Conduct as a Competition Law Concern*

The question on how patent applicants conduct their proceedings before the patent office can also become relevant from a competition law perspective. Indeed, due to the undeniable impact that patents are bound to have on the market, at least potentially, unwarranted conducts during patent prosecution may be perceived as an additional source of antitrust concern.

In this particular area, the scenarios in Europe and the US are also rather different. US case law has long acknowledged that fraudulent conducts before the patent office can constitute antitrust violations and has developed certain standards—although those standards are not always entirely clear and seem to overly focus on the ulterior enforcement of the patent rather than on the antitrust concerns of the fraudulent conduct itself. Under EU law, this area remained for a long time outside the radar of competition law, even though recent developments evidence that the scenario might be changing—particularly after the *AstraZeneca* decision by the CJEU.¹⁵⁰⁵ It seems important, hence, to determine how competition law ought to tackle this kind of behaviour by identifying the appropriate theory of harm and, on that basis, develop suitable standards for its assessment.

A. *The Experience so far in the US and in the EU*

I. *The Scenario in the US: Walker Process and its Progeny*

The first case in which the US Supreme Court ruled on this specific issue was *Walker Process*,¹⁵⁰⁶ a case decided in 1965. In its rather succinct decision, the Supreme Court essentially established that the enforcement of a patent procured by fraud may be violative of § 2 Sherman Act. Over time,

1505 Case C-457/10 P *AstraZeneca v Commission* (CJEU, 6 December 2012, ECLI:EU:C:2012:770).

1506 *Walker Process Equipment Inc v Food Machinery & Chemical Corp* 382 US 172 (1965).

Walker Process developed into one of the most often raised antitrust defences during patent litigation, although very rarely in a successful way. On its face, the decision seems to be rather concise and simple, yet its conclusion and the background reasoning opened the door to a number of interesting questions —many of which still remain unanswered to this day.

In the first place, the decision failed to explain how this conclusion fits into the puzzle of the ‘antitrust petitioning immunity’ doctrine, which had been acknowledged by the same court only a few years before in *Noerr*.¹⁵⁰⁷ Under this doctrine, the Supreme Court had concluded that, as a principle, no antitrust violation may be derived from mere attempts to influence the passage or enforcement of laws or other governmental acts. Despite the fact that applying for and prosecuting a patent clearly constitute acts of petitioning, the Supreme Court did not even bring up this issue in *Walker Process*. Later on, the Supreme Court did acknowledge it as an open question but expressly declined to solve it. On this basis, some have argued that *Walker Process* is nothing but a variant of sham —the only exception to petitioning immunity expressly recognised in *Noerr*. Others contend that sham and *Walker Process* rather constitute two separate means of stripping a patentee from said immunity.

The Supreme Court decision in *Walker Process* also failed to explain what kind of deceptive conduct is needed in order to trigger antitrust liability. This problem, however, was for the most part unravelled by lower courts, who defined the relevant conduct around the more established standards of common law fraud.

More importantly, neither *Walker Process* nor subsequent decisions from lower courts entirely clarify the theory of harm that underlies this defence. At first glance, antitrust concerns seem to flow from the deceptive conduct taking place at the patent office. The Supreme Court, however, overly concentrated on the enforcement stage and several passages of its reasoning seem to downplay the relevance of the events that take place at the patent office. Indeed, the decision hints that the crucial factor is whether a patentee or assignee enforces a patent knowing of its invalidity, which does not necessarily require a reproachable behaviour during prosecution. A patentee could become aware of the patent's infirmity after grant, eg by discovering an unknown piece of prior art. In any case, the prevailing interpretation today seems to require two essential elements to prove a *Walker Process* antitrust violation: the misleading or fraudulent behaviour before the

1507 *Eastern Railroad Presidents Conference v Noerr Motor Freight Inc* 365 US 127 (1961).

patent office and a subsequent enforcement of the fraudulently obtained patent.

II. *The Scenario in the EU: AstraZeneca*

In the EU, the first case tackling this issue began with an investigation carried out by the Commission which ultimately concluded with the *AstraZeneca* decision by the CJEU. The case involved a very particular set of facts comprising conducts before the patent office but not referring to ordinary patent applications. Be that as it may, the analysis of the CJEU offers a clear idea of the criteria under which similar conducts may be assessed in the EU in the future.

In *AstraZeneca*, the CJEU decided —among other issues— that a pattern of misleading representations by a firm holding market dominance in order to acquire SPCs to which it was not entitled constitutes an abuse of a dominant position. In general terms, it highlighted that such a conduct constitutes a practice falling outside the scope of competition on the merits and hence a violation of art 102 TFEU.

The CJEU first stressed that dominant firms have a special responsibility that compels them to disclose relevant information in these kinds of situations. In this regard, it is worth pointing out that, as a rule, the SPCs involved in that case were granted without any comprehensive examination, basically relying on the information provided by the applicant. Patent offices had a very limited margin of manoeuvre —which is clearly not the case in ordinary patent applications and hence might speak for a distinct solution in that scenario.

As for the exclusionary effects of the deceptive behaviour, the CJEU emphasised that they derive from the mere existence of the exclusive right which should not have been granted. The General Court expressly highlighted in this regard that the enforcement of the exclusive right was not required. In fact, the CJEU pointed out that it was not even necessary to have obtained the exclusive right, as long as the misleading acts were at least likely to result in their issuance.

Finally, as for the characterisation of the abusive conduct, the General Court interpreted that the pattern of misleading acts configured a case of single and continuous infringement. The CJEU added that the anti-competitive nature of the misleading acts must be evaluated at the time when those acts are committed and, hence, that the fact that a firm does not hold a dominant position any longer by the time the exclusive right is granted does not exonerate it from antitrust liability.

Against this backdrop, the question emerges as to how courts should solve a case of misleading conducts taking place within the context of regular patent application proceedings, where the regime does not necessarily coincide with that of SPCs. On the basis of the case law developed in the US and the guidelines sketched by the CJEU in *AstraZeneca*, the second and final goal of the present work was thus to identify the theory of harm underlying these conducts and develop workable standards for their assessment.

B. Sham or Vexatious Litigation Distinguished

In order to identify the theory of harm underlying these kinds of behaviours, it is important to first distinguish them from cases involving sham or vexatious litigation. Indeed, although similar and often overlapping, sham or vexatious litigation scenarios exhibit particular features which are not necessarily present in the abuses which are the object of this work.

In the US, sham was first acknowledged by the Supreme Court in *Noerr* as an exception to the petitioning antitrust immunity therein established. In fact, sham remains today the sole exception to this immunity expressly recognised by the Supreme Court. In that case, the court established that the act of petitioning the government is immune to antitrust scrutiny unless it is 'a mere sham to cover what is actually nothing more than an attempt to interfere directly with the business relationships of a competitor.'¹⁵⁰⁸

Subsequent cases contributed in gradually shaping the boundaries of the sham exception, which was finally defined by the Supreme Court several decades later in *PREI*.¹⁵⁰⁹ In this decision, the Supreme Court stated that, for a sham conduct to amount to a case of monopolisation, two different elements must be shown: an objectively baseless petition and a specific intent to interfere with competitors through 'the use of the governmental process —as opposed to the outcome of that process— as an antitrust weapon.'¹⁵¹⁰

1508 *Noerr* (n 1507) 144.

1509 *Professional Real Estate Investors Inc v Columbia Pictures Industries Inc* 508 US 49 (1993).

1510 *ibid* 61; *City of Columbia v Omni Outdoor Advertising Inc* 499 US 365, 380 (1991).

On the EU side, courts developed very similar standards in *ITT Promedia*,¹⁵¹¹ a decision by the General Court which was rendered only a couple of years after *PREI*. In the context of abusive litigation, the General Court interpreted that, in principle, the bringing of an action cannot be characterised as an abuse. In order to qualify as an abuse, the General Court implicitly adopted a test which very much resembles US Supreme Court's test in *PREI*.

Therefore, despite their rather different points of departure, US and EU courts seem to essentially refer to the same conduct when assessing sham or vexatious abuses, ie the use of court and governmental proceedings irrespective of their outcome and with the main purpose of harassing, deterring or hindering competitors. Hence, in order to qualify as an antitrust offence, two separate elements must be shown: an objectively baseless petition and a specific intent to harass competitors through the governmental proceedings. This is, of course, not the exclusive domain of intellectual property rights, as similar abuses are also conceivable with any other act of petitioning to the government. From an economic perspective, it appears to be a variant of the more general strategy of raising rivals' costs, ie a non-price predatory practice.

At this point, the question inescapably emerges as to whether a deceitful conduct before the patent office can be subsumed within the sham tests developed in the US and EU. As for the first element of those tests, it could probably be argued without major hurdles that a misleading conduct, at least if it refers to elements material to patentability, is indeed objectively baseless because the applicant was aware that the patent would not be granted if the examiner became aware of all pertinent facts. But when it comes to the second element, the issue becomes a little thornier. Indeed, if a firm decides to conceal relevant information on patentability, it is very likely that its intent is not to harass or interfere with competitors through the abusive use of the governmental process, but rather to obtain the patent and hence an unwarranted exclusive right to be able to exclude competitors.

Against this background, one may wonder whether this implies that a mischievous conduct before the patent office does not really raise genuine antitrust concerns, or whether the tests developed by US and EU courts are flawed. But the reason why such conducts do not fit the sham criteria is probably different and more connected to the fact that those kinds of conducts are not entirely comparable. This seems to be, in point of fact, the

1511 Case T-111/96 *ITT Promedia NV v Commission* [1998] ECR II 2937.

interpretation adopted by the General Court in *AstraZeneca*, which expressly refused to apply the *ITT Promedia* criteria to an abuse consisting of misleading representations. In the US, the FTC advocates for this interpretation as well, arguing that deceitful acts of petitioning the government do not need to be assessed under the light of the sham criteria. Hence, although there might be cases where deceitful conducts take place within a sham strategy, a deceptive conduct before the patent office seems to raise a different type of antitrust concerns: the exclusionary effects appear to flow directly from the governmental act rather than as a collateral effect of the act of petitioning.

C. *Deceptive Conduct before the Patent Office as a Case of Inducing Government Action through Improper Means*

I. *The General Framework in the US and in the EU*

In view of the foregoing, it is necessary to look into the question of misleading conducts before the patent office through different lenses, and to that end the standards developed by EU and US courts on the question of improper inducement of government action seem to be an appropriate starting point. At the end of the day, deceptive conducts before the patent office seem to be nothing but a variant of this type of abuses.

As a principle, it should be borne in mind that any government action—be it a law, a regulation, an individual decision—is capable of restraining competition. Those restrictions, however, are often beneath the competition law radar. Yet when the government action imposing those restraints is triggered by a reprehensible private action, competition law intervention may be justified.

In the US, the standards of assessment for these kinds of conducts are not yet entirely clear. As explained earlier, petitioning the government is, as a principle, immune to antitrust laws in this jurisdiction. The only exception expressly acknowledged by the Supreme Court is sham. Admittedly, the Supreme Court also hinted in other decisions that deceptive practices may not always be immunised, yet it never explained whether a separate exception really exists. Be that as it may, lower courts ordinarily interpret that misrepresentations in non-political arenas are not immune and rely on diverse grounds to reach this conclusion. The FTC and several scholars increasingly advocate for a separate exception and *Walker Process* could in fact be invoked as a touchstone to support this view.

In the EU, the scenario was relatively similar until not very long ago, as courts had insinuated different parameters along several cases but had never addressed the question directly. In *AstraZeneca*,¹⁵¹² however, the General Court attempted to draw a more general conclusion and expressly stated that the submission of misleading information to the government which is liable to lead to the grant of an exclusive right to which an undertaking is not entitled is a practice that falls outside the scope of competition on the merits.

II. Elements for Competition Assessment

Admitting that a deceptive conduct before the patent office may be considered, at least theoretically, an improper inducement of governmental action capable of harming competition only constitutes the first step in the competition law assessment. As in any other case of monopolisation or abuse of a dominant position, there are different elements that need to be shown, essentially relating to market power, the abusive behaviour and the anticompetitive effects. To that end, and given the singularities of this particular set of conducts, a number of important factors must be taken into account before concluding that a violation of competition law really exists.

a. Causal Link

In the first place, it is indispensable to verify the causal link between the governmental act that imposes restrictions on competition and the deceitful conduct of the private party, so as to determine whether the former is a direct consequence of the latter. In other words, it must be analysed whether the patent has been granted specifically because of the mischievous prosecution by the patent applicant.

The question may seem at first sight simple, yet it is often difficult to deconstruct the mental process of the decision maker—in this case, the patent examiner. Complications may arise, eg, if the false information provided by the patent applicant was not the sole reason why the examiner decided to grant the patent. Moreover, even if a patent is clearly the result of a fraudulent conduct, it could very well happen that the patent would have been nonetheless granted even in the absence of the fraudulent behaviour.

1512 Case T-321/05 *AstraZeneca v Commission* [2010] ECR II-2805.

In that case, it could be argued that the private party's conduct —though reproachable— does not actually amount to a competition law violation, as the restrictions on competition would have been imposed anyway.

Because the question on causal link very much resembles the 'materiality' element of inequitable conduct cases in the US, many of the opinions expressed by the courts in those cases may also be transposed to the antitrust sphere.

b. Conceptualisation of the Misconduct

Additionally, it is important to define what exactly constitutes a deceptive conduct by a private party. Despite the technical nature of the areas that it governs, patent law is no exact science and the fact that a patent is incorrectly granted does not by any means imply that the applicant behaved in a fraudulent way. Even though anticompetitive conducts are ordinarily defined under objective parameters, both EU and US courts seem to acknowledge that cases involving deceptive conducts before the patent office may represent an exceptional scenario where the specific intent of the applicant plays a decisive role. This does not mean that the relevant conduct necessarily entails positive misrepresentations, as omissions may also be deemed deceptive depending on the circumstances of the case. Ultimately, it is crucial that the reproachable conduct is not defined too broadly in order to avoid undermining the integrity of the patent procedure.

c. Discretion of the Patent Office

Particular attention should also be paid to the margin of discretion enjoyed by the public authority when receiving input from private parties. Ordinarily, patent offices have ample room for manoeuvre in order to verify the accuracy or veracity of the information they receive from patent applicants. Yet there are situations where public authorities enjoy less discretion, in which cases the resulting public act is less likely to embrace public policy concerns. In those cases, the potential anticompetitive effects seem to flow directly from the undertakings' own judgment rather than from a governmental decision.

In any event, it seems clear that, as a general rule, the undertakings' duty of transparency becomes stricter in inverse proportion to the govern-

ment office's margin of discretion and is likely to vary depending on the factual circumstances of each case.

d. Anticompetitive Effects

Even if shown that a patent applicant has deliberately deceived the patent office and that this conduct has been material to the grant of a patent, an infringement of competition rules cannot be found unless anticompetitive effects are also shown.

In the first place, it may be argued that the sole existence of the granted patent is capable of having exclusionary effects, even though US courts seem to require evidence that the patent has been somehow enforced too. The sole existence of the fraudulently obtained patent on the market may increase market entry costs for competitors. And with regard to competition in innovation, there may be cases in which the improper grant of a patent could discourage competitors to invest in R&D on that particular technological area.

In order to assess the anticompetitive effects in practice, it is important to define the relevant market and weigh it against the scope of the patent (ie, its claims). In fact, a patent can have from insignificant to vast effects on the market depending on the specific technology that it aims to protect and the existence or not of alternative non-infringing products.

At least theoretically, it could be argued that even deceitful conducts which do not result in a granted patent may have exclusionary effects. In practice, however, these effects might be very hard to prove and should not be analysed laxly as they could turn in practice into a *per se* violation.

e. Market Power

Last, but certainly not least, unilateral anticompetitive conducts require proof not only of the anticompetitive behaviour but also of an element of market power. This may be particularly interesting in the cases at hand, as a patent applicant may have no market power at all when prosecuting a patent application, yet it may acquire significant market power subsequently—precisely due to the improperly obtained patent.

In the US, the fact that market power is not held at the time of the relevant conduct is not particularly problematic, as § 2 Sherman Act is a rather flexible provision in this regard. Indeed, the figures of monopolisation and

attempt to monopolise are able to seize conducts by non-dominant firms which later lead to market power —or even when they do not, provided that there is a dangerous probability of achieving it. In practice, however, US courts deem the enforcement of the fraudulently obtained patent as the relevant conduct, and at that point in time it is more likely that patent holders will hold at least some degree market power.

In the EU, art 102 TFEU shows important differences in comparison to § 2 Sherman Act. As opposed to the latter, art 102 TFEU focuses on what undertakings do once they attain market power, but evidences several problems when facing conducts performed by non-dominant firms —even if they later achieve some degree of market power and even if they become monopolists. Admittedly, some alternatives exist to enable the applicability of art 102 TFEU under certain circumstances, eg by defining the relevant market in narrow terms. Ultimately, however, this seems to be yet another example of the limitations of EU competition law when dealing with the abusive acquisition of market power.

III. Ownership or Enforcement of Fraudulently Obtained Patents

Despite of whether the deceptive prosecution of a patent application may on its own amount to a competition law violation, it is also interesting to consider whether the maintenance and enforcement of a patent so obtained can become relevant conducts from a competition law viewpoint. This question becomes particularly relevant under EU law considering the limitations of art 102 TFEU described above.

From a US law perspective, enforcement is not only a relevant element when assessing fraudulent acquisition of patents: it is an essential one for any *Walker Process* claim to succeed. These claims, however, also require proof of a fraudulent conduct before the patent office, which in practice implies that there are not one but two separate conducts that need to be shown. In other words, this unilateral anticompetitive conduct could very well be performed by different parties, e.g. if the patent is fraudulently obtained by one party, later transferred and ultimately enforced by a different one. In any case, US court decisions make the anticompetitive effect somehow difficult to identify: as they disregard ownership alone and make enforcement an indispensable element, they seem to bring the anticompetitive concerns closer to sham or other predatory conducts.

Under EU law, it could first be considered whether art 102(a) TFEU may become applicable against these particular sets of cases, ie whether the ownership or enforcement of fraudulently obtained patents may be

deemed exploitative abuses in the form of excessive selling prices. In the context of patent ambush cases, the Commission seems to have relied on this provision¹⁵¹³ and a similar reasoning could be made here. The Commission, however, only used this provision as a pretext to evaluate an exclusionary abuse that had taken place before but could not be reached because the undertaking did not hold sufficient market power at that time. In fact, applying art 102(a) may entail significant risks, as it requires competition agencies to become price regulators. Tackling high prices seems to give the idea that the competitive process failed somewhere along the way and that competition law should have intervened earlier.

Additionally, taking into consideration that the owner of an improperly obtained patent is not likely to be willing to license it out, it should also be considered whether the 'refusal to license' case law could offer an alternative course of action by warranting a duty to license. Many of the relevant factors contemplated in the referred case law, however, may pose significant challenges for its transplantation to this other scenario. More importantly, the question of competition law is likely to arise after the patent has been declared invalid and this fact would render any subsequent licensing uncalled for.

Ultimately, what should be considered is whether the ownership or enforcement of patents obtained through deceptive means may be considered as separate exclusionary abuses. The question is certainly worth asking but is beyond the scope of this work. Indeed, the proper question seems to be whether the ownership or enforcement of patents which are known to be invalid can be a violation of competition laws. No significant differences exist from a competition law standpoint if the patent being maintained or enforced has been obtained through fraud or if the owner only later became aware of the cause of invalidity. Posed in these terms, the question raises a myriad of new problems that certainly merit further research, though caution is advised so as to avoid imposing excessive or vague duties upon patent holders and undermining the integrity of the patent system altogether.

1513 *Rambus* (Case COMP/38.636) Commission Decision 2010/C 30/09 [2010] OJ C30/17.