The Constitutional Protection of Trade Secrets
under the Takings Clause

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The field of intellectual property is a growth industry that may, for all I know, involve an unintended consequence of Moore’s Law in that the number of published articles in the field doubles on average every eighteen months. Most of that increased effort has been devoted to copyright and patents. But intellectual property also includes the difficult and critical area of trade secrets. The current definition of a trade secret allows for the protection of information of any sort: “A trade secret is any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable and secret to afford an actual or potential economic advantage over others.”

In many ways, the logic for protecting trade secrets parallels that for protecting patents and copyrights. People will not develop certain forms of information at private cost if the benefits of that information can be immediately socialized by the unilateral actions of others. Patents grant the right to exclude only to individuals who disclose their information. This disclosure can, especially with processes and know-how, undermine its value to the owner because of his inability to monitor its use by others. So long as a product may be made in multiple ways, the owner cannot learn of the misappropriation of his invention from the mere appearance of that product on the market. Trade secrets offer both an alternative to patent protection for inventions, and an exclusive source of protection for matters as diverse as know-how, recipes, and customer lists. Unlike the holder of a patent, the “owner” of the trade secret (if we may use that phrase) loses all grip once that trade secret is disclosed, no matter how much labor went into the secret’s creation. He is vulnerable to the chance discovery of the secret and to reverse engineering. Ironically, it is quite possible

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Restatement (Third) of Unfair Competition § 39 (1993). In some sense I prefer the highly influential but somewhat archaic view of trade secrets in the First Restatement of Torts:

A trade secret may consist of any formula, pattern, device or compilation of information which is used in one’s business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers.

Restatement (First) of Torts § 757 comment b (1939).
that one owner of the trade secret might be unaware that it is possessed by a second, who also has strong incentives to keep it private.

Unlike patents and copyrights, trade secrets are protected primarily by state law rules, with some limited federal protection thrown into the mix. One gap in the system leads to a loss of protection for everyone, so that the gains from a uniform and consistent set of rules for trade secrets are enormous. Even so, those gains can be realized only through consistent interpretation and enforcement of these rules. For the most part, this congruence has taken place on the subconstitutional level, but the constitutional dimensions of trade secret law, especially in relation to the Takings Clause, do matter when trade secrets are subject to federal or state health and safety regulation.

In dealing with this problem it is important not to overestimate the distinctive nature of intellectual property and underestimate its continuity with tangible forms of property. Indeed, the case law on this subject offers a back-handed vindication of this thesis. The law first places excessive reliance on the now-canonical but intellectually indefensible distinction between physical and regulatory takings. Thereafter it misapplies a distinction that ought not to be used in the first instance. In this Essay, I hope to show how these twin difficulties play themselves out in connection with two key cases under the Takings Clause—the now venerable decision in *Ruckelshaus v Monsanto Co,* and the more recent First Circuit decision in *Philip Morris v Reilly.*

The Takings Clause to the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." My view, quickly summarized, is that a complete understanding of the clause requires a court to address four questions: (1) Has private property been taken? (2) If so, was there some justification for that taking under the police power? (3) If not, was the taking for a public use? And (4) if so, has just compensation been provided? The actual articulation of each of these elements bristles with difficulties in ordinary cases associated with land, and we should not be surprised to find that these problems will surface in the more specific context of trade secrets where the intangible nature of the right adds yet another layer of interpretive uncertainty.

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4 312 F3d 24 (1st Cir 2002).
5 US Const Amend V.
I. TRADE SECRETS AS PROPERTY

The first question requires us to decide whether these trade secrets should be treated as property at all. One possible argument against this position is that the mark of private property is the exclusive right of use that is given to its owner. With trade secrets this condition might not be satisfied because the holder of the secret has no way to know whether others have independently developed the trade secret on their own. Indeed, under the customary formulation of the doctrine, other individuals have a privilege to reverse engineer the trade secret for their own use. The configuration of the right therefore looks quite different from that associated with land or patents, but not, on this point at least, with copyrights, where independent creation is a defense against a charge of copying.

Relying on these arguments, Pamela Samuelson has forcefully argued that trade secrets should not be considered a form of property at all, but should rather be understood as a series of undertakings that bind individuals who have received a trade secret in the course of some confidential relationship. She acknowledges, of course, that trade secrets are alienable and descendible, but does not think that trade secrets rate as property interests because they lack that “in rem” feeling. Most notably, trade secrets are not good against the rest of the world in so far as the law will not prevent anyone from making an independent discovery of the information in question, or indeed from finding by lawful means the trade secret and using it to his own advantage. Treating trade secrets solely as a web of confidential arrangements, as Samuelson does, means that the protection the law affords does not extend to any third party who acquires the trade secret outside of some confidential arrangement. Samuelson’s narrow definition does not prevent strangers from stealing information or from acquiring it from a person whom they knew had acquired the information by unlawful means. Yet the current law goes beyond the case of contractual breach so as to reach any individual who misappropriates the in-

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8 Pamela Samuelson, Privacy as Intellectual Property, 52 Stan L Rev 1125, 1153 n 148 (2000), noting Justice Holmes’s opinion in E.L du Pont de Nemours Powder Co v Masland, 244 US 100 (1917), which observed:

Whether the plaintiffs have any valuable secret or not the defendant knows the facts, whatever they are, through a special confidence that he accepted. The property may be denied but the confidence cannot be. Therefore the starting point for the present matter is not property or due process of law, but that the defendant stood in confidential relations with the plaintiffs.

formation, including those who receive it with knowledge of some prior misappropriation. The only excluded cases are those of "innocent acquisition," as with the person who finds the recipe book at a train station after its owner misplaced it.

Even in this last case, I see no reason why the owner of the trade secret should not be allowed to enjoin the use of the information innocently acquired by a third person before it has been disclosed to the public at large. The innocent converters of tangible property cannot keep what they have. Their only protection is a right to recoup any value that they add to the property of the owner. The analogous remedy should be a return of any document that contains the trade secret coupled with an obligation not to use it in one's own affairs, of the sort that is routinely imposed in voluntary transfers of trade secrets.

More importantly, to speak of a trade secret as though it emanates solely from a confidential arrangement puts the cart before the horse. There is no obvious reason why a single person cannot develop and keep a trade secret to himself. The fact that the information is not shared with a single soul does not strip it of legal protection. Rather the contrary seems to be true. It is precisely the right of an individual to keep that secret to himself that allows him to disclose it to other individuals under a condition of confidentiality. It would be very odd to enforce any contract to keep the information confidential if the original holder or creator of the trade secret had no property rights in it at all. And in virtue of the ability of any person to both keep and transfer information, special rules must be made with respect to the further transfer of information received under a license or other confidential agreement. Although the usual rules of property and contract look askance at consensual restraints on alienation, the presumptions are reversed in dealing with trade secrets: anyone who transfers the information to a third party may still keep it to himself. The greater the number of individuals who hold the trade secret, the greater the risk of leakage, and with it, destruction. The optimal norm therefore is one against allowing the retransfer of information that has been obtained by license. The point here is important not because it tells us whether to treat trade secrets as property or strictly as confidential arrangements. It is important because it sheds light on the need to tailor familiar legal principles to account for the easy reproducibility of trade secret information.

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10 But see Richard A. Epstein, Why Restrain Alienation?, 85 Colum L. Rev 970, 990 (1985) (noting that restraints on alienation are useful to solve "problems of external harm and the common pool").

11 See Samuelson, 52 Stan L Rev at 1156–57 (cited in note 8).
II. TAKINGS PRINCIPLES AND THE MISAPPROPRIATION OF TRADE SECRETS

The recognition of trade secrets as property interests sets the stage for analyzing the application of the Takings Clause to this issue. The key case in this history is *Monsanto*. There the government flat-out conceded that trade secrets were property under Missouri law when the matter came before the United States Supreme Court. Whatever the doubts about the status of trade secrets under state law, this concession makes good sense. Without it, any state could simply order everyone to disclose their trade secrets; private parties would be powerless to resist. It took little imagination for the Court to hold that trade secrets were property under Missouri law, and thus protected against confiscation under the Takings Clause of the Constitution.

A. The Physical Takings Analogy

The next question asks: just what form does that protection take? One easy case is that the government engages in a forced assignment of a trade secret, the terms of which allow it to use the information in secret for its own purposes, while forbidding the original holder of the trade secret and its licensees, if any, from making any further use of the trade secret on its own. The point of this illustration ties in closely with the Supreme Court’s now-dominant (if incoherent) organization of takings law. The most obvious form of takings, which is in general subject to a rule of virtual per se invalidity, is the occupation of tangible property. The original owner loses possession of the thing that is taken over by the government. If that outright transfer of ownership does not count as a taking, then the entire clause is a dead letter.

In some cases, however, it has been argued that the high standard of judicial review associated with physical occupation of property does not carry over to the realm of intellectual property. After all, if the property is intellectual, then how can it be subject, definitionally no less, to physical occupation?

This objection exalts literalism over functionalism. The entire point of the argument about physical occupation is that it condemns the behavior of the government whether one looks at the issue from the benefit or the cost side. Thus the individual property owner has certainly suffered a loss from the state’s denial of his right to use the trade secret. But in some cases, most notably with good will, the Su-

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12 *Monsanto*, 467 US at 1001.
13 See id at 1001-03.
14 See *Loretto v Teleprompter Manhattan CATV Corp*, 458 US 419, 426 (1982) (“We conclude that a permanent physical occupation authorized by government is a taking without regard to the public interests that it may serve.”).
preme Court has held that destruction is not compensable because it does not represent any "property taken" by the government."

In the case of trade secrets, of course, the total prohibition on use counts as a loss that is matched in full by the public benefit from the state's using the trade secret for its own purposes, which is the precise analogy to physical occupation with tangible property. The major question that remains is whether the compensation in question should be measured by the gain to the government or the loss to the owner. The correct answer is the latter. If the value to the state is lower than it is to the owner, then the property should not be taken at all. And if it is greater, then the government can afford to make the compensation and come out the net winner. The underlying dynamics of how takings rules are used to constrain government behavior do not fall into abeyance in dealing with trade secrets, where the per se rule of the physical occupation cases has a direct analog.

The analogies are similar to the next set of cases, where the holder of a trade secret is allowed to continue to practice the secret himself, but is not permitted to exclude others from its use. This residual right is not wholly worthless: just as the exclusive use of the trade secret provides a net advantage to the owner, so too the specific prohibition puts the owner at a disadvantage against all others. Better, from his point of view, that he be allowed to continue with the business. But it hardly follows that the reduction from a position of dominance to one of parity does not count as a loss, simply because state action could have reduced that position to one of absolute inferiority. Once again, the cases of tangible property provide a sensible guide to the overall situation.

Here the central Supreme Court case is *Kaiser Aetna v United States*, in which the Court held that the United States had committed a physical taking when it required the builder of a private marina to provide open access to all individuals who had access to public waters. The hallmark of property was said to lie in the right to exclude, which was compromised when state action turned the marina from private to common property. The original owner's residual rights of use should reduce the damages allowable in this case, but even though

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15 See, for example, *Kimball Laundry Co v United States*, 338 US 1, 5 (1949), which denied a landowner whose property had been temporarily taken by the government any compensation for the loss of good will associated with the disruption of his business. That case in turn relied on *Monongahela Navigation Co v United States*, 148 US 312, 338 (1893), which restricted the compensation payable to the "property taken." The good will was not used by the government, even if it was destroyed by it. For my criticisms, see Richard A. Epstein, *In and Out of Public Solution*, in Terry L. Anderson and Fred S. McChesney, eds, *Property Rights: Cooperation, Conflict and Law* 307, 317-21 (Princeton 2003).
17 Id at 180.
this was a "partial" taking of sorts, the obligation to compensate was determined under the virtual per se takings rule that is used in the cases of direct government occupation. Another way to characterize the holding is that the government does not escape its obligation to compensate landowners simply because the benefit of state use is not confined to the government in its collective capacity but works for the benefit of undifferentiated members of the public. The key test is whether others are allowed to go where they were once prohibited, and this line applies with equal force in the area of trade secrets, where indeed the most common form of theft never eliminates the right of the owner to use his own trade secret."

B. The Regulatory Takings Analogy

We can contrast the two cases just considered with various forms of government regulation in which the "sole"—a term that must be used with much trepidation—consequence of the government action is to restrict the use of the property in question, without involving any direct use of the property by the state. The paradigmatic illustration of this practice is zoning, where the public benefits from the land use restrictions on others come only in an indirect form—lower congestion and more open space, for example. For these purposes, the key difference derives from the Supreme Court's decision in *Penn Central Transportation Co v City of New York*, which subjects use restrictions on property to far lower standards of judicial review. According to the standard formulation, so long as the regulated user retains some viable economic use of the property in question, then he cannot complain of the loss of other sticks in the bundle of rights.

This formulation of the question is subject to two strong, indeed insuperable, objections. The first asks how to define the tipping point that separates those restrictions of economic use that render property economically viable and those that do not. The second asks how to determine what counts as "the property" to measure the loss in question. If two adjacent plots are subject to common ownership, does the preservation of use rights on one justify their extinction on the other?

Whether or not we like the distinction between physical and regulatory takings, it becomes critical to understand how trade secrets should be treated under the established legal framework. If we treat all legislation that pertains to trade secrets as use restrictions, then the

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19 See *Euclid v Ambler Realty Co*, 272 US 365, 394–95 (1926) (holding that a zoning ordinance was not facially unconstitutional).
lower rational basis test that derives its power from *Penn Central* will be used in connection with every system of regulation that deviates in any particular from the common law rules (or their codifications) that govern the subject. But once again, this characterization appears not to describe these cases.

A use restriction of a trade secret occurs when the holder of the trade secret is told that he cannot practice the trade secret in some location or use the trade secret for some product lines. This counts as a use restriction because the owner of the trade secret still remains the only person who can practice the secret, even if he can only do so over a narrower range than before. The analogy is precisely equivalent to a decision to allow a landowner to use property only for residential purposes, but deny anyone else the use of the property in question. But regulations that require an owner to turn over information are the intangible equivalent of direct occupation.

C. Takings and Comprehensive Disclosure Schemes

1. *Monsanto* and unconstitutional conditions.

The analysis of basic takings law shapes the legal response toward the comprehensive disclosure schemes introduced by modern legislation. In *Monsanto*, for example, the Court was asked to evaluate different iterations of a scheme found in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).21 FIFRA establishes an unproblematic period when submitted information is not shared with rival claimants. Once this period has expired, however, the Act authorizes the Environmental Protection Agency (EPA) to use trade secret information that it has acquired from an earlier permit applicant to evaluate the safety of a product that is prepared by a subsequent applicant.22 As part of an elaborate statutory compromise about the kinds of uses that could be made of trade secret information for the purposes of dealing with health and safety, the provision implicates the next three questions associated with the generalized takings inquiry, having to do with public use, police power justifications, and just compensation. In this event, there is little doubt that the use of trade secret information by government agencies to evaluate products submitted by others counts as a public use of an intangible. Thus, the operation of the statute should not be enjoined, even if we back off the very broad, indeed grotesque, view that finds a public use whenever there is any "conceivable" public benefit from certain forms of gov-

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ernment actions. It takes no master of analogy to see that testing for environmental impacts differs from forcing a Hawaiian landlord to sell his reversionary interest to a sitting tenant for a price that is stipulated by the state.

Even when that question is decided, there is still the issue of how to evaluate the taking in question, which depends critically on how the particular regulations in question are evaluated. Under FIFRA a number of options were available to the EPA with respect to the information requested. In principle, it could disclose that information to the public, even though in practice it did not adopt this particular option. But the EPA could surely take the information in question and give it to a rival claimant in order to reduce the time and cost needed to process its application. The statute itself contained certain requirements for compensation with respect to the shared use of that information, so that the basic pattern of the Takings Clause would be respected in dealing with the matter. At this point, the only real question is whether the amount of compensation meets the usual tests, which are none too stringent to begin with.

What is troubling about the situation here is the unargued assumption in *Monsanto* that the government program should be evaluated in terms of the lower standard of review that is applicable for a regulatory taking. At this point, the inquiry slips into an “ad hoc” discussion of the *Penn Central* test with its three major components: “the character of the governmental action, its economic impact, and its interference with reasonable investment-backed expectations.” As applied to trade secrets, the first factor is most uninformative because it does not explain why one form of coercive government behavior should be treated differently from any other. The second is seemingly irrelevant as it never explains why the size of the impact goes to the question of coverage under the Takings Clause, rather than the valuation of an individual case.

The last requirement—that a taking must involve “reasonable investment-backed expectations”—is at best useless and at worst mischievous. If the question is whether individuals have a reasonable expectation that their property will be taken by government action, then the answer depends on how one deals with reasonableness. If the only question is *predictive*, namely, whether individuals and firms rightly fear that governments will act in disrespect of common law property rights, then the worse the government behaves, the stronger its defenses against constitutional challenges. The Constitution becomes a

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23 See *Hawaii Housing Authority v Midkiff*, 467 US 229, 240–41 (1984). It is instructive to note the differences in nuance between *Monsanto* and *Midkiff*, two cases decided by the Supreme Court during the same term.

call for private mitigation of government misconduct rather than a device to limit that misconduct in the first place. Individuals who are warned by prior forms of government misbehavior must, as best they can, steer clear of those actions that provoke the wrath of the state. The difficulty with this point of view is that it requires Hobbesian responses to what is supposed to be a Lockean world. Private actions to mitigate damages are poor solutions because they reduce the level of innovation and invention that allows the system to operate successfully in the first place. Something more than predictive weight should attach to the idea of “reasonableness” under the circumstances, and that in turn requires some sense that the arrangements in question respond to some legitimate government purposes—such purposes that are, at a minimum, justified by more than a crude appeal to the notion that we trapped you inside the jungle and therefore can expropriate all that you own.

The differences in these two ways of determining reasonable expectations really matter. Under the second, normative, account of these tests, we do have a police power justification for running tests to see that the chemicals in question meet the standards of public health and safety. But we can surely achieve this particular goal without the publication of the content of the trade secret, and without allowing subsequent applicants to use the information free of charge. The required information is delivered under a pledge of confidentiality that insulates it from constitutional reproach. Stated differently, the police power requires not only the articulation of an intelligent end, but also the selection of means that fit the end in question. So long as the health and safety objectives can be met without compromising the content of the trade secret, then the statute must choose means that satisfy the dual imperatives of protecting private property and public health.

It follows therefore that there is a clear restriction on how the government agency may use the trade secret information entrusted in its care. Information may well be used to facilitate review of the application of the firm that held the trade secret without any compensation at all. But beyond that, there are difficulties. The publication of the information willy-nilly does not advance health and safety in any way that could not be achieved by warning of any dangers that might be encountered in ordinary use. In addition, any gains that could be obtained by allowing second-generation firms to use this information can be obtained even if they are required to compensate the first-mover for the partial loss of its trade secret. The language about “reasonable investment-backed expectations” is therefore baggage to the extent that it purports to do anything more than refer courts back to the four key questions that animate any inquiry under the takings law.
Yet this is not the way the *Monsanto* Court proceeded. Rather, once the *Penn Central* test was assumed (erroneously) to apply, then the entire inquiry shifted from government justification to assumption of risk by the holder of the trade secret. Thus Justice Blackmun first observed that “Monsanto was on notice of the manner in which EPA was authorized to use and disclose any data turned over to it by an applicant for registration.”

The clear subtext is that by virtue of the fact that it had the ability to keep the information from the government it necessarily assumed the risk of its partial or total disclosure once it handed that information over to the government.

If, despite the data-consideration and data-disclosure provisions in the statute, Monsanto chose to submit the requisite data in order to receive a registration, it can hardly argue that its reasonable investment-backed expectations are disturbed when EPA acts to use or disclose the data in a manner that was authorized by law at the time of the submission.

After all, it could still sell its products in some overseas markets (unless it was subject to the same adverse conditions).”

At this point Justice Blackmun’s entire analysis breaks down because of the on/off character of investment-backed expectations. Let the submission be made before the requirement is imposed, and it looks as though there is no justification for the restriction in question. But once the trade secret holder receives notice in advance of what will be required, then there is an “overwhelming” case against the protection of the trade secrets because the expectation of privacy utterly vanishes. The point here is that the voluntary submission is said to undo the property protection, which in turn leads to the question of why the decision to submit the data is called voluntary. In the ordinary case a decision is voluntary because the party who makes it can decline to do so without the loss of any other rights.

This regulatory scheme, however, is not an ordinary bargain between equal strangers from which Monsanto could walk away at its free will and pleasure. At common law Monsanto would have the antecedent right to market its products without the need for any pre-clearance from the government, subject to the usual rules that deal with damages and injunctions in the event that its fungicides prove dangerous to others. Here the statute deprives it of that right prior to the time of any submission, without any compensation being paid at all. If that new baseline had been properly obtained, then the language of mutual gain would justify the use of the assumption of risk theme

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25 *Monsanto*, 467 US at 1006.
26 Id at 1006–07.
27 See id at 1007 n 11.
implicit in the phrase "reasonable investment-backed expectations." But it was not, for the government cannot just tell people that they cannot receive a permit. The permit power does not give it ownership rights over private property, but must be exercised only for some good cause shown. Otherwise, the government could announce publicly that no one could do anything without a permit, be it occupy land, sell products, or protest some regulatory scheme. At that point the state could offer to return to private persons the rights that it had just obtained by fiat in exchange for some fresh concession. Thus the government could demand that if you wish to build a house on beachfront property, then you must yield to the government an easement across the front of the property—or for that matter, half the land in question.

It seems clear that the entire case has to raise the vexing doctrine of "unconstitutional conditions," which places limits on the ability of the government to require individuals to waive their constitutional rights, including those to property under the Takings Clause, in order to escape the burden of some regulatory exaction. Justice Blackmun blithely notes the possibility that this doctrine could apply, but then quickly concludes that it really does not matter in this case because the entire issue concerns health and safety, matters over which the government's power to regulate is secure. Consequently, he never asks whether the unconstitutional conditions doctrine imposes any limitation on the strength of the quid pro quo the government can extract in connection with basic regulation, and thus downplays the critical role that the compensation system and the sharp restrictions on public and private disclosure played in the evaluation of FIFRA.

Quite simply, the decision refuses to acknowledge the narrower grounds on which it is both possible and proper to uphold FIFRA. Instead, Blackmun makes the clever observation that the statutory conditions really cannot be that onerous because Monsanto continued to invest in research even after FIFRA and its various modifications were on the books. But Monsanto did not continue investing because the government could always have its way on matters of environmental regulation so long as it gives public notice of its intention. Rather, Monsanto continued because FIFRA contained both compensation and confidentiality requirements that satisfied the more exacting tests of just compensation and police power justification.

29 For my views, see Richard A. Epstein, Bargaining with the State 23 (Princeton 1993) (noting that the unconstitutional conditions doctrine should "function in a variety of contexts as a check against the political perils of bargaining and takings risks").
30 Monsanto, 467 US at 1007.
2. The First Circuit's approach.

The confusion that Monsanto sowed came to a head in the endless litigation that took place in the First Circuit\(^3\) (and in which I took part as a consultant for the tobacco companies) that addressed the constitutionality of a Massachusetts statute\(^4\) requiring manufacturers to disclose certain key ingredients in tobacco (other than the tobacco itself) to the Department of Public Health (DPH) in order of their relative concentrations. The DPH had the power to release such information “for the purpose of protecting public health,” unless the Attorney General thought that the public disclosure of the trade secret information exposed the state to liabilities under the Takings Clause.

The statute itself does not expressly require any holder of a trade secret to expose all the flavorings added to their cigarettes; nor does it require them to explain how the ingredients are combined. The published information, however, clearly makes it easier for a rival to reverse engineer the distinctive taste of any cigarette, a task that is exceedingly difficult to undertake without that information, since the act of burning the tobacco often destroys or transforms its initial ingredi-

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\(^{31}\) The litigation includes *Philip Morris, Inc v Harshbarger*, 159 F3d 670 (1st Cir 1998); *Philip Morris, Inc v Harshbarger*, 122 F3d 58 (1st Cir 1997); *Philip Morris, Inc v Reilly*, 113 F Supp 2d 129 (D Mass 2000). See also *Philip Morris, Inc v Reilly*, 60 USPQ2d 1545 (1st Cir 2001), revd, 312 F3d 24 (1st Cir 2002).

\(^{32}\) Mass Ann Laws ch 94, § 307B (Lexis 2000). The section states:

> For the purpose of protecting the public health, any manufacturer of cigarettes, snuff or chewing tobacco sold in the commonwealth shall provide the department of public health with an annual report, in a form and at a time specified by that department, which lists for each brand of such product sold the following information:

> (a) The identity of any added constituent other than tobacco, water or reconstituted tobacco sheet made wholly from tobacco, to be listed in descending order according to weight, measure, or numerical count; and

> (b) The nicotine yield ratings, which shall accurately predict nicotine intake for average consumers, based on standards to be established by the department of public health.

The nicotine yield ratings so provided, and any other such information in the annual reports with respect to which the department determines that there is a reasonable scientific basis for concluding that the availability of such information could reduce risks to public health, shall be public records; provided, however, that before any public disclosure of such information the department shall request the advice of the attorney general whether such disclosure would constitute an unconstitutional taking of property, and shall not disclose such information unless and until the attorney general advises that such disclosure would not constitute an unconstitutional taking.

This section shall not require a manufacturer, in its report to the department or otherwise, to identify or disclose the specific amount of any ingredient that has been approved by the Food and Drug Administration, Public Health Service, United States Department of Health and Human Services (“FDA”), or its successor agency, as safe when burned and inhaled or that has been designated by the FDA, or its successor agency, as generally recognized as safe when burned and inhaled, according to the Generally Recognized As Safe list of the FDA.
No one denied the characterization of the disclosures as a partial taking of the initial trade secret within the pattern established in *Kaiser Aetna*. The point hardly counts as news in light of the explicit statutory provision that blocks disclosure "unless and until the attorney general advises that such disclosure would not constitute an unconstitutional taking."

The question then arises as how best to deal with the statute in question, having established a prima facie case that a taking has occurred. In my view, the right way to think about the issue is to note that the submission of information should not be regarded as "voluntary"; the price that is paid for the failure to conform to the new law is the loss of any ability to sell the property within Massachusetts. In other words, the ability to avoid one obligation requires the sacrifice of a related constitutional right. The case is no different from that of telling the tobacco companies that if they wish to sell their products within the state of Massachusetts, they must deed over to the state the title to their Boston headquarters. In dealing with the prima facie case, it does not matter what form of property is surrendered; all exactions of this sort force a person to choose between two entitlements, much as the robber gives his hapless victim the choice between his money and his life.

In response, Massachusetts should howl at the analogy. In its view the statute is justified by the police power in the name of public health in a way in which a seizure of the Boston headquarters is not. But that conclusion only works if one takes (as Justice Blackmun implied in *Monsanto*) a rational basis view of the police power under which a mere whiff of a public health interest is sufficient to insulate the statute from all forms of constitutional challenge. However, no sensible regime of takings law can allow a constitutional protection created at the front end to be eviscerated at the back end, without at least some look at the methods chosen to pursue the public health. Here the differences between FIFRA and the Massachusetts scheme are simply too large to be ignored. The target of the Massachusetts statute included such potent additives as parsley, sage, rosemary, and thyme, or at least "sugars, glycerin, propylene glycol, cocoa, and licorice." The statute afforded no opportunity for the tobacco companies to contest the designation that these ingredients posed health hazards, and there was no showing, or even suggestion, that their presence in tobacco posed a greater threat than it did in other products. Yet all of these elements are common in all sorts of common food (and one assumes

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34 *Reilly*, 312 F3d at 27.
pharmaceutical) preparations, where their use goes without notice, and the statute does not purport to regulate their use in any other product. Nor for that matter is there any showing that a consumer who is constantly bombarded with information about the dangers of nicotine and tar, all of which are fully disclosed and discussed, could attach any but the most evanescent interest in the ingredients for which disclosure is routinely required under the statute.

The inescapable inference in this case is that the information in question is of value to only one segment of the public, namely, rival producers who could combine this information with that available from other sources to reverse engineer trade secrets on flavorings in which the tobacco companies have invested millions, and for which they take incredible precautions to keep them from falling into enemy hands. The entire disclosure was, moreover, far beyond that provided under both federal statute and under the statutes of other states where the information in question was collected in confidence by the government agency until some investigation revealed that it posed some danger to public health, at which point the firm could either reformulate the product or face publication of the offending result. The traditional account of the police power is broad enough to include regulatory schemes that are intended for the protection of the “health, safety, morals, and general welfare.” Even in the heyday of substantive due process, the scope of the police power was regarded as strong enough to require the publication of trade secret information that was necessary to prevent against various forms of consumer fraud. But the traditional formulation of the police power was intended to exclude those statutes which had primarily an anticompetitive effect, as by providing one class of firms an advantage that it denied to its rivals. Here the simple incantation that the disclosures are for public health cannot save a statute that yields its secrets under the most cursory of reviews.

In dealing with this situation, a badly split First Circuit came to the right decision when the two judges who struck down the statute were in fundamental disagreement on how to apply the Monsanto decision. Judge Torruella took the view that the three-part test from Penn Central applied and then concluded that the impact of the government regulation was severe in light of the destruction of the trade secret, while its health justification was weak. The basic conclusion is

35 See, for example, Minn Stat Ann § 461.17 (West 2001) (covering only certain specified additives); Tex Health & Safety Code Ann §§ 161.351–55 (West 2001) (requiring the report of brand-specific ingredients in descending order, but banning disclosure for information that counts as trade secrets under federal law).
36 See, for example, Corn Products Refining Co v Eddy, 249 US 427, 431–32 (1919).
37 See Reilly, 312 F3d at 45–46.
correct, largely because it pushes off to one side the notice and assumption of risk rationales in Monsanto that would lead to the opposite conclusion. In the end, Torruella increased the level of scrutiny to reflect the differences between trade secrets and zoning.

Judge Selya disagreed and found in Monsanto clear intimations that the dominant factor in the case related not to the nature of the state's imposition, but to the clear sense that this decision dashed the reasonable expectations of the tobacco firms because it was imposed after their products reached the market. In so doing he relied on Justice Blackmun's observation in Monsanto that "we find that the force of this factor is so overwhelming" that it is not necessary to consider either the nature of the private interest or the type of government intervention." That said, he then appears to ignore the rest of the sentence that provides "at least with respect to certain of the data submitted by Monsanto to EPA, that it disposes of the taking question regarding those data." The clear implication of Justice Blackmun's opinion was that the prior notice in Monsanto doomed the claim for protected status. But his language does not support the converse proposition that where notice was lacking, the regulation in question had to fail regardless of other circumstances. This rapid oscillation of the on/off switch leaves open the possibility that the regulation might be per se valid when applied to some new product or reformulated version of existing products that took place after the statute was on the books.

CONCLUSION

In dealing with these issues we have yet again abundant support for two key propositions. The first is that it is a mistake in dealing with intellectual property questions to assume that the differences between intellectual property and tangible property are invariably so broad that it is necessary to start over whenever any serious question of intellectual property law arises. In this case there are some differences between trade secrets and tangible property in the articulation of the right to exclude, but none of these bear any relevance to the overall analysis of the two types of property interests. Second, in dealing with this issue the takings law remains a mess for two reasons—one that applies generally and the other that pertains exclusively to intellectual property law. The former of these is that there is a large gulf in the rules that govern physical and regulatory takings when it is not possi-

38 See id at 48–49 (Selya concurring).
39 467 US at 1005.
40 See Reilly, 312 F3d at 48.
41 467 US at 1005.
The Constitutional Protection of Trade Secrets

It is easy to pooh-pooh this case as making a mountain out of a molehill, as at least one student author has done. But the stakes in getting the right analysis on this matter are very high, for the much despised tobacco industry is not the only potential target of trade secret regulation. Similar rules with a health and safety rationale could be imposed on pharmaceuticals and foodstuffs, or indeed any other consumer product. It is a credit to our political institutions that they have as of yet not attempted such efforts, but with the manifest hostility toward the pharmaceutical industry, an approach such as this might well be in the wings. The point here is that there is no reason to run that risk at all. The procedures whereby trade secrets are disclosed to regulators under a promise of confidentiality unless and until some danger is discovered imitates a set of practices that are routinely used with the voluntary conveyancing and licensing of trade secrets. It falls easily within the scope of the police power even if we do engage in the usual gymnastics that surround takings jurisprudence. There is still time to place the legal protection of trade secrets on a more secure constitutional footing.

42 See Hur, Comment, 53 Stan L Rev at 471 (cited in note 33).