Litigation against fracking bans and moratoriums in the US: exit, voice and loyalty

Article

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LITIGATION AGAINST FRACKING BANS AND MORATORIUMS IN THE US: EXIT, VOICE AND LOYALTY

A number of US states, counties and municipalities have responded to the public health and environmental concerns surrounding fracking by imposing bans or moratoriums on unconventional oil and gas drilling. These restrictions have, in recent years, given rise to litigation challenges by oil and gas companies and by property owners deprived of potential revenues. The current article begins by examining precisely who has litigated. Have large companies dominated or is it mostly smaller independents? Is there a difference in litigation rates between private and public companies? The article then considers how Hirschman's ideas of exit, voice and loyalty might apply in the context of bans and moratoriums and further explores some of the factors that may have driven litigation in the area.

INTRODUCTION

High volume hydraulic fracturing (HVHF) or fracking involves the injection of large quantities of water under pressure along with proppants such as sand, and other chemicals.[1] It is used, together with horizontal drilling techniques, to extract "unconventional" oil and gas from shale rock or tight sands. The US has, in the past decade, undergone a "shale revolution", with a significant industry having developed across the country, producing enough oil and gas to take it closer to self-sufficiency[2] and with much reduced energy prices.

While industry has extolled the benefits of shale, fracking has also produced its fair share of controversy. Lax regulatory controls[3] have fed concerns over, inter alia, water and soil contamination by fracking chemicals or methane, depletion of water resources, local air pollution from wellbores, compressor stations and site traffic, and climate change impacts from uncaptured methane. The *Gasland* documentary, which famously showed flames coming out of kitchen taps, is regarded by many detractors as emblematic of the problems associated with the shale boom. It is these public concerns that have led to a sizeable number of local communities imposing bans or moratoriums on fracking in their areas.[4]

Fracking has also given rise to significant private law litigation by home owners and others who claim to have suffered loss as a result of the industry's operations.[5] Such claims – across

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[1] *See further* U.S. DEP'T OF ENERGY, MODERN SHALE GAS DEVELOPMENT IN THE UNITED STATES: A PRIMER (2009), *available at* http://energy.gov/sites/ prod/files/2013/03/f0/ShaleGasPrimer_Online_4-2009.pdf.
[2] *U.S. Energy Imports and Exports to come into Balance for First Time since 1950s*, U.S. ENERGY INFO. ADMIN. (Apr. 15, 2015), available at http://www.eia.gov/todayinenergy/detail.cfm?id=20812.
[3] *See, e.g.*, exemption from the Safe Drinking Water Act, 42 U.S.C. §§ 300f–300j (26) (2012). The Energy Policy Act of 2005 largely excluded hydraulic fracturing from the former Act's underground injection control program (42 U.S.C. § 300h). For this and other examples, s*ee further*, Katherine Toan, *Not Under My Backyard: The Battle Between Colorado and Local Governments Over Hydraulic Fracturing*, 26 COLO. NAT. RESOURCES, ENERGY & ENVTL. L. REV. 1 (2015) at 13-17.
[4] For a list of state bans and moratoriums, *see* http://keeptapwatersafe.org/global-bans-on-fracking/.
[5] *See, e.g.*, Kaoru Suzuki, *The Role of Nuisance in the Developing Common Law of Hydraulic Fracturing*, 41 B.C. ENVTL. AFF. L. REV. 265 (2014); Michael Goldman, *A Survey of Typical Claims and Key Defenses*

a range of torts including trespass and nuisance – have covered a number of different types of alleged harm, from drinking water contamination to human health impacts of air pollution. However such litigation is not the focus of the current article. What it analyses instead is the litigation brought by the economic actors on the other side of the debate, who seek to benefit from shale and other forms of unconventional oil and gas drilling. In particular, it examines court challenges brought by the oil and gas industry and property owners against bans and moratoriums on unconventional oil and gas operations introduced by US local government.

The article examines who has been bringing litigation against fracking bans and moratoriums introduced by US states, municipalities and counties. Where the economic actors involved are oil and gas companies, it aims to identify what type of company they are. Are they large multi-national "majors", with integrated operations from upstream (exploration and production, including drilling), through midstream (transportation, e.g. via pipelines), to downstream (refining, gas processing, and the sale of hydrocarbon end products)? Are they large, non-integrated "independents" (focusing principally on upstream activity) with a national scale? Or are they predominantly smaller independents operating out of single states or regional oil and gas fields? Besides firm size and level of vertical integration, is the model of ownership significant? In other words, is there a difference between privately owned companies and those whose stock is publicly listed on a national stock exchange?

As will be seen, the data reveals a particular puzzle, which is that among oil and gas company litigants, the majority of cases have been brought by smaller companies. This is puzzling

Asserted in Recent Hydraulic Fracturing Litigation, 1 TEX. A&M L. REV. 305 (2013); Hilary M. Goldberg, Melanie Stallings Williams, and Deborah Cours, *It's A Nuisance: The Future of Fracking Litigation in The Wake of Parr v. Aruba Petroleum, Inc*., 33 VA. ENVTL. L.J. 1 (2015).

because one might expect large companies, with greater access to resources, to be better placed to take on expensive litigation. I argue that rational choice theory can help to explain this puzzle, and may also assist in understanding some of the broader recent trends in fracking ban litigation.

Having explored the data on who is litigating, the article then investigates the extent to which Albert Hirschman's typology of exit, voice and loyalty provides a useful lens on responses by economic actors to US fracking bans and moratoriums.[6] Litigation in this context represents one form of "voice" alongside political campaigning and lobbying; "exit" to another municipality, county or state without a ban or moratorium may also be an option for some economic actors; and the article additionally explores whether any decision to exercise voice through litigation rather than to exit may be influenced by loyalty to the relevant geographical area.

I. FRACKING BANS AND MORATORIUMS

With growing concern on the part of many local communities over the potential health and environmental risks posed by fracking, the US has seen numerous municipalities or counties introduce bans or more time-limited moratoriums on the practice.[7] A limited number of states such as New York and Vermont have also banned fracking. The precise legal form which these restrictions take varies.[8] In some states, communities have opted for zoning (land use)

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[6] ALBERT O. HIRSCHMAN, EXIT, VOICE, AND LOYALTY: RESPONSES TO DECLINE IN FIRMS, ORGANIZATIONS, AND STATES (1970). For an application of Hirschman's (separate) work on rhetoric to fracking, *see* Ole Pedersen, *The Rhetoric of Environmental Reasoning and Responses as Applied to Fracking*, 27 J. ENVTL. L. 325 (2015).

[7] S*upra* note 4.

[8] *See, e.g.,* Uma Outka, *Intrastate Preemption in The Shifting Energy Sector*, 86 U. COLO. L. REV. 927 (2015) at 958-959.

measures;[9] in others they have employed direct regulatory controls;[10] in yet others, bans have been implemented via community rights charters.[11]

Because states also regulate the oil and gas industry, where lower levels of government have introduced such moratoriums and bans, one is faced with classic issues of subsidiarity, competence and preemption within a federal system. Which level of government is best placed to regulate fracking? Is competence exclusive to a particular level, or shared across levels? Should local democratic choices on regulation of fracking be allowed to trump state democratic preferences, or, on the contrary, is local control preempted by state law, either partially or completely? The anti-fracking movement points to the right of communities to be able to protect their own health and the local environment. Industry, in contrast, argues that only state-level control can produce the legal certainty needed for investment and prevent an inefficient patchwork of different rules emerging.[12] Inevitably, this conflict of views has ended up in court, with industry most often challenging local restrictions on preemption grounds, [13] discussed further below (along with other types of challenge).

[9] *See, e.g.,* Trinity East Energy, LLC v. City of Dalllas, No. DC-14-01443 (Tex. Dist. Ct. filed Feb. 13, 2014).

[10] *See, e.g.,* Citadel Exploration v. San Benito County, No. 15-00028 (Calif. Super.Ct., San Benito Cty. filed March 3, 2015).

[11] *See, e.g.,* Bass Energy Inc v. City of Broadview Heights, No. CV-14-828074 (Cuy. Ct. C.P March 10, 2015). For more detail on the Charter, *see* Mothers Against Drilling in Our Neighborhoods v. Ohio, No. CV-14-836899 (Cuy. Ct. C.P. Dec. 4, 2014).

[12] Toan, *supra* note 3.

[13] See further Gregory R. Nearpass and Robert J. Brenner, *High Volume Hydraulic Fracturing and Home Rule: The Struggle for Control*, 76 ALB. L. REV. 167 (2013); David B. Spence, *The Political Economy of Local Vetoes*, 93 TEX. L. REV. 351 (2014); Toan, *supra* note 3; Jamal Knight and Bethany Gullman, *The Power of State Interest: Preemption of Local Fracking Ordinances in Home-Rule Cities*, 28 TUL. ENVTL. L.J. 297 (2015).

The US is not the only country to have seen bans and moratoriums on fracking. There are numerous instances worldwide, including for example national bans in France and Bulgaria, national moratoriums in Germany and Scotland and regional bans in countries such as Spain and Canada. And some of these countries have, similarly, seen industry litigation challenging such restrictions. Thus in France for example, Schuepbach Energy[14] (unsuccessfully) challenged the 2011 national law preventing hydraulic fracking.[15] However, the US is unique in having developed such a significant body of case law in a relatively short period, which makes it particularly worthy of study.

II. HIRSCHMAN'S EXIT, VOICE AND LOYALTY

Hirschman's trilogy of exit, voice and loyalty was developed primarily as a means of explaining how the forces of competition work to discipline firms and to prevent them from allowing the quality of their offering to deteriorate. While focused on companies, Hirschman emphasises that the concepts are also applicable to membership organisations such as trade unions or political parties. For both companies and such organisations he describes exit and voice as "mechanisms of recuperation"[16] from reduced quality.

When confronted by poor quality or service in a competitive market, a consumer typically has a choice between exiting to another company, purchasing its product or service instead, or exercising voice within the existing company. Hirschman describes the latter as follows:

[14] A private, US headquartered independent oil and gas company with operations globally.
[15] See the Conseil Constitutionnel, *Schuepbach Energy LLC*, No. 2013-346 QPC October 11, 2013 (upholding as constitutional arts 1 and 3 of Law no. 2011-835 of July 13, 2011 on the prevention of the exploration and exploitation of liquid or gas hydrocarbon mines by hydraulic fracking and revoking exclusive licences to prospect for projects that use this technique).
[16] Hirschman, *supra* note 6, at 5.

> To resort to voice, rather than exit, is for the customer or member to make an attempt at changing the practices, policies, and outputs of the firm from which one buys or the organization to which one belongs. Voice is here defined as any attempt at all to change, rather than to escape from, an objectionable state of affairs.[17]

However, in a monopoly situation, the exit option is likely to be unavailable, meaning that only voice is available to dissatisfied customers or members.[18]

Loyalty to a firm or organisation is described as "a key concept in the battle between exit and voice".[19] It not only increases the costs of exit,[20] thus making exit less likely, but also increases the likelihood of voice because people have an attachment and are therefore more likely to try to achieve change from within.[21] Graham and Keeley identify loyalty as the least understood of Hirschman's variables.[22] They note that while some see it as a third behavioural response after exit and voice, others regard it as an affective state and therefore as an intermediate variable that influences the choice between exit and voice. They also point out that while some argue that loyalty increases voice, others claim that silent, passive loyalty is also a real possibility.

Hirschman's schema has been employed in relation to both litigation and local government decision-making. Thus, with the former, Coffee has argued that enhancing the potential for

[17] *Id*. at30.
[18] *Id*. at 33.
[19] *Id*. at 82.
[20] *Id*. at 80.
[21] *Id*. at 77.
[22] Jill W Graham and Michael Keeley, *Hirschman's Loyalty Construct*, 5 EMPLOY. RESPBTIES. & RTS. J. 191 (1992).

“exit” is the best way of improving accountability to clients in class action suits.[23] Literature on the latter takes inspiration not only from Hirschman but also from Tiebout’s influential views on competitive federalism, where the possibility of citizen exit supposedly ensures that local governments remain mindful of the need to meet citizen preferences.[24] Rose argues that accountability for land use decisions by local government is ensured by paying attention to voice (via participation) and exit (through predictability).[25] Been[26] claims that, in deciding on the degree of judicial scrutiny of local government exactions,[27] account should be taken of the ability of developers to exit. Epstein similarly analyses Hirschman’s ideas in relation to land use planning,[28] but also looks at local government decision-making more generally.[29]

However, while Hirschman has been examined in the broad context of local government, his work has not been employed in the context of fracking. In addition, the above literature is broadly normative in orientation, employing Hirschman’s typology as a means of assessing the accountability of agents to principals, who may be held in check by combinations of voice and exit. In contrast, the current article looks to Hirschman’s ideas of exit, voice and loyalty more as a way of understanding different strategic choices that are available to economic actors in relation to fracking bans and moratoriums. Litigation as a form of voice is obviously one strategic option that has been chosen in a number of instances. Exit offers an alternative strategy to litigation, providing economic actors frustrated by bans and moratoriums with the ability, in some instances, to move to a different area. And loyalty, bearing in mind

[23] John C Coffee, Jr, *Class Action Accountability: Reconciling Exit, Voice, and Loyalty in Representative Litigation*, 100 COLUM. L. REV. 370 (2000).
[24] Charles M Tiebout, *A Pure Theory of Local Expenditures*, 64 J .OF POL. ECON’Y. 416 (1956).
[25] Carol M Rose, *Planning and Dealing: Piecemeal Land Controls as a Problem of Local Legitimacy*, 71 CAL. L. REV. 837 (1983).
[26] Vicki Been, *"Exit" as a Constraint on Land Use Exactions: Rethinking the Unconstitutional Conditions Doctrine*, 91 COLUM. L. REV. 473 (1991).
[27] Financial community payments by developers in return for development permission.
[28] Arguing, *inter alia*, that Been overstates the value of the exit remedy.
[29] Richard A Epstein, *Exit Rights Under Federalism*, 55 LAW & CONTEMP. PROBS. 147 (1992).

discussion of the concept above, is regarded, for the purposes of the present article, as an affective state that may condition the choice between voice and exit rather than a third behavioural response or outcome in addition to those two. Following Hirschman, one might assume that loyalty is more likely to raise the costs of exit and lead to increased voice.

III. WHAT FORM IS THE LITIGATION INVOLVING BANS AND MORATORIUMS TAKING?

There are three key potential types of legal challenge to municipal and county level moratoriums and bans. The first – and the only type to have produced a significant number of judgments so far – are preemption claims, arguing that such municipal regulation is unlawful because preempted by state law.[30] Such claims typically seek declaratory and/or injunctive relief to have the restrictions lifted. The second are "takings" claims, which argue that moratoriums or bans are unconstitutional regulatory takings which violate the owners' property rights under, in particular, the Fifth Amendment (or state equivalents).[31] The remedy sought here is damages to reflect the loss caused by the restriction. Restrictions on fracking may now face both types of claim simultaneously, it being considered that adding in a damages element produces a more powerful challenge:

> The WSPA [Western States Petroleum Association] raised both arguments in its suit against Compton. Observers have noted that a takings claim brings the added dimension of a potentially significant verdict against the counties. Many argue that

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[30] See e.g. Wallach v. Town of Dryden 16 N.E.3d 1188 (N.Y. 2014); *Lenape Resources v. Town of Avon*, No. 14-00102 (N.Y. App. Div. Oct. 3, 2014); Anschutz Exploration Corp v. Town of Dryden 940 N.Y.S.2d 458 (N.Y. Sup. Ct. 2012); Colorado Oil and Gas Association v. City of Lafayette, No. 13CV31746 (August 27, 2014).

[31] *See, e.g.*, SWEPI, LP v. Mora County, No. CIV 14-0035 JB/SCY (D.N.M. Jan 19, 2015) (also a preemption challenge); Western States Petroleum Association v. City of Compton, No. BC552272 (Cal. Super. Ct., L.A. Cnty. filed July 21, 2014) (also preemption); Trinity East Energy, LLC v. City of Dalllas, *supra* note 9.

localities may rescind their fracking bans rather than risk incurring a large financial obligation.[32]

Without going into detail on the substantive law on takings,[33] the issue with such claims is likely to be the difficulty of establishing that all of the economic value of the property has been removed. Economic use of the surface land in the form of, say, farming, is likely to still be possible;[34] and even if the courts view a minerals estate in isolation, then a ban on fracking will typically not prevent the employment of conventional well drilling.[35]

Third, there have also been electoral law challenges surrounding municipal ballots introducing bans or moratoriums. For example, *Thomas E Cave and Broomfield Balanced Energy Coalition v. The City and County of Broomfield*[36] saw a challenge to the electoral process introducing the Broomfield fracking ban. In the event, the court ruled that the city had substantially complied with state election laws and that the election should not be set aside.

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[32] Barclay Nicholson and Johnjerica Hodge, *Fracking Bans May Thrust California Localities Into Contentious Legal Battle*, Nov. 13, 2014, available at http://www.hydraulicfrackingblog.com/2014/11/fracking-bans-may-thrust-california-localities-into-contentious-legal-battle/.

[33] *See further*, Patrick C McGinley, *Regulatory Takings in the Shale Gas Patch*, 19 PA. ST. ENVT'L. L. REV. 193 (2011).

[34] *Id*., at 217-218.

[35] Albeit that the leaseholder is likely to argue that alternative drilling operations not involving fracking will be uneconomic. *See further* Glenn Coin, *With Fracking Banned in New York, What Happens to Landowners, Leases?*, Dec. 17, 2014, available at http://www.syracuse.com/news/index.ssf/2014/12/fracking_banned_in_new_york_what_happens_to_landowners_leases.html. Even if there is a ban on *all* oil and gas drilling (and not just fracking), private property rights lost under such a ban must be balanced against savings from potential common law nuisance liability, meaning that a ban may not be held a taking (McGinley, *supra* note 33, at 222-234).

[36] No. 13CV30313 (Colo. Dist. Ct. Feb. 27, 2014). *See also, e.g.*, Grafe-Kieklak v. Town of Sidney, No. 213-602 (N.Y. Sup. Ct., Del. Cty. Jan. 9, 2014); Beezley and Broomfield Balanced Energy Coalition v. The City and County of Broomfield, No. 2013CV30304 (Colo. Dist. Ct. Jan. 24, 2014).

While most preemption challenges have been examples of what Harlow and Rawlings call "proactive" litigation,[37] brought by economic actors as plaintiffs, there have also been examples of "reactive" litigation,[38] where a company goes ahead with drilling and waits to be sued as a defendant for breaching local ordinances. Thus in *State ex rel. Morrison v. Beck Energy Corp.*,[39] Beck had been granted a *state* permit to drill (in fact a conventional well here) and had just started drilling operations. The city of Monroe Falls then took the company to court claiming that it was unlawfully drilling in breach of *local* regulations. The Ohio Supreme Court ruled against Monroe Falls, holding that local licensing controls were preempted by state regulation of oil and gas drilling.

Another form of reactive litigation surrounding bans and moratoriums has involved lease contract renewals or extensions.[40] Most of the relevant minerals lease contracts contain a clause leading to expiry of the lease if drilling by the minerals lessee (and hence associated royalty payments to the landowner) has not taken place during a specified period. In New York, a number of oil and gas companies, fearing that the state's moratorium would lead to termination through inactivity in this way, argued that the moratorium amounted to "force majeure"— an unpredictable situation beyond the company's control which prevented it from drilling. Such a situation meant that the delay imposed by the moratorium should not count for the purposes of the lease.[41] A number of landowners litigated in order to enforce their termination rights under the contracts and these challenges were typically defended by oil and

[37] CAROL HARLOW AND RICHARD RAWLINGS, PRESSURE THROUGH LAW (1992).

[38] *Id*.

[39] 143 Ohio St.3d 271, 2015-Ohio-485.

[40] *See, e.g.*, Walter R. Beardslee, et al. v. Inflection Energy LLC, 25 N.Y.3d 150 (N.Y. App. Ct. 2015); Beardslee v. Inflection Energy LLC, No. 12-4897 (2d Cir. 2015).

[41] *Id*.; *see also*, Anya Litvak, *Uncommon Legal Concept May Surface in New York after Fracking Ban*, PITT. POST-GAZ., Dec. 23, 2014, available at http://powersource.post-gazette.com/powersource/policy-powersource/2014/12/23/Uncommon-legal-concept-may-surface-in-New-York-after-fracking-ban/stories/201412230015.

gas companies trying to ensure that they did not lose the remaining economic value of the leases they had purchased. However, the current article is principally concerned with an analysis of proactive challenges against bans and moratoriums, and thus reactive cases like these and the *Beck* one in the previous paragraph will not be further considered.

Economic actors have also become involved in litigation against fracking bans or moratoriums via *amicus curiae* briefs. In *Robinson Township v. Commonwealth*[42] for example, an anticipatory challenge was brought by municipalities to a new state level law on oil and gas (Act 13) that would effectively prevent municipal home rule of fracking. Local oil and gas associations (Pennsylvania Independent Oil and Gas Association, the Marcellus Shale Coalition) and a range of companies[43] were allowed to participate as *amicus curiae* in oral argument in support of the state. In a mixed ruling, the Pennsylvania Supreme Court held that elements of the restrictive state law were unconstitutional, while also underlining that municipalities could not ban fracking entirely. Again, although a preemption related challenge, not being litigation directly brought by an economic actor, it is not included in the main data here.

IV. METHODOLOGY

The current article is a small number (n = 23 legal cases) case study. Out of what has become a vast range of fracking litigation, the focus – as already adverted to in the previous section – is on suits brought by economic actors against fracking bans and moratoriums introduced by

[42] 83 A.3d 901 (Pa. 2013).

[43] MarkWest Liberty Midstream and Resources LLC, Penneco Oil Company Inc, and Chesapeake Appalachia LLC.

townships, municipalities and states. I include cases which involve what have been asserted to be *de facto* bans,[44] but I have not covered fracking-related cases where local government simply denies, for example, zoning permission to an individual applicant without this being part of a wider ban or moratorium.[45] While the main focus is on fracking bans and moratoriums, I have included cases challenging bans or moratoriums on wider oil and gas drilling because these will invariably also rule out fracking. Litigants in such cases may have been intending to employ HVHF; equally, however, there are some who said they intended to drill only conventional wells.[46] Both have been included. To count as a suit, a case had to have been filed in court. I did not, therefore, count cases where a pre-action notice of claim had been served on the relevant local government but no case had actually been filed.[47] The above focus means that the study is longitudinally self-limiting: such challenges have only occurred within the last five years and most of them are much more recent than that.

The cases involving litigation were identified by searching existing fracking litigation databases drawn up by some of the key law firms acting in the area,[48] which catalogue fracking cases by type, and then by searching the emerging academic literature on the case law challenging bans and moratoriums.[49] While this builds a fairly complete picture, what it may not always capture are proceedings that have been filed by companies but where the relevant municipality has decided to lift the ban rather than face the significant expense of

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[44] *E.g.* Trinity East Energy, LLC v. City of Dalllas, *supra* note 9.

[45] *E.g.* Markwest Liberty Midstream & Res., L.L.C. v. Cecil Twp. Zoning Hearing Bd., 102 A.3d 549, 573 (Pa. Commw. Ct. 2014).

[46] *See, e.g.*, Jennifer Huntingdon, the farmer landowner plaintiff in Cooperstown Holstein Corp. v. Town of Middlefield, 964 N.Y.S.2d 431 (N.Y. App. Div. 2013).

[47] *E.g.* Highland Field & Stream Club, Inc v. The Town of Highland (filed Oct. 5, 2012).

[48] Barclay Nicholson, Norton Rose Fulbright, *Analysis of Litigation Involving Shale and Hydraulic Fracturing*, June 1, 2014, available at http://www.nortonrosefulbright.com/files/20140101-analysis-of-litigation-involving-shale-hydraulic-fracturing-104256.pdf; Arnold & Porter, *Hydraulic Fracturing Case Chart*, Dec. 2, 2015, available at http://www.arnoldporter.com/resources/documents/Hydraulic%20Fracturing%20Case%20Chart.pdf.

[49] *E.g.* Nearpass and Brenner, *supra* n 13; Spence, *supra* n 13.

defending the action.[50] I therefore followed this up by using internet searches to locate bans and moratoriums and searching for any litigation against the relevant municipalities or states which had introduced them. This would also be expected to pick up very recent cases which the databases may not yet have included. Finally, I used interviews with industry actors to triangulate my list of cases, checking that there were no other examples of which the interviewees were aware. The cut-off period for the purposes of the research was the end of March 2015.

V. WHO IS LITIGATING AGAINST BANS AND MORATORIUMS?

Before examining the data below, it is worth pointing out that many of the 23 cases involved more than one plaintiff. For data purposes, if a case involved for example three landowner plaintiffs, these were counted in Table 1 below as three plaintiffs rather than as a single example of a landowner case; similarly, if a case involved one landowner, one oil and gas company and one trade association, it was counted against all three of these plaintiff types.

Looking at the data to see who is litigating against bans and moratoriums, it is apparent that it is a mix of oil and gas companies, state oil and gas trade associations, property owners, state agencies and private citizens and citizen groups.

[50] On this issue of capitulation *see, e.g.*, Terry Smith, *Court Rulings Suggest Athens Fracking Ban is Indefensible*, THE ATHENS NEWS, March 18, 2015,available at http://www.athensnews.com/opinion/wearing_thin/court-rulings-suggest-athens-fracking-ban-is-indefensible/article_9a4b90e4-ec43-5648-8569-2569d1bb22d3.html.

Table 1: Types of plaintiff

Type of Plaintiff	State agency	Private citizens/groups	O& G Trade Association	O&G Companies	Landowner
Number of Suits	2	4	6	14	12

Given the relatively small overall number of cases involved, one should beware of reading too much into the data. However, bearing that in mind, by far the greater proportion of claims has been taken by economic interests and, within these, in particular by oil and gas companies, albeit closely followed by landowners.

Table 2: Type of Oil & Gas Company Plaintiff (n=14 for each of small/large, public/private, local/national)

Type of Plaintiff	**Small Companies**	**Large companies**	*Publicly listed*	*Privately owned*	<u>Local</u>	<u>National/multi-national</u>
Number of Suits	10	4	5	9	9	5

If one further unpacks the data on suits brought by oil and gas companies, set out in Table 2, then it can be seen that the majority have been initiated by smaller companies, most of which are local (state or regional). Larger companies have been involved as plaintiffs in only four suits. Of these large companies, one was a subsidiary of a supermajor (Shell), one was integrated, one was an independent and one was a mid-stream pipeline infrastructure company.

Just as the difference between small and large companies is noticeable, with many more suits brought by the former than the latter, there is also a sharp distinction when one looks at the corporate ownership model. Five suits have been brought by publicly listed companies owned by shareholders, but nearly twice that number have been instigated by privately owned companies.

VI. EXIT

In discussing exit from an area with a ban or moratorium, it is important to distinguish between oil and gas companies and property owners because their potential exit dynamics are different. Beginning with oil and gas companies, in New York, many – particularly small and medium sized ones – do appear to have exited their unconventional New York State acreage without litigating:

> Mr. Gill contends that the drawn-out nature of state deliberations on whether to allow fracking — the process has been under way for four years — has allowed many land leases to expire and prompted some companies to walk away and focus their resources on drilling in other states. Companies like Talisman Energy and Inflection Energy, which have drilled with conventional methods in New York and had hoped to

expand into hydraulic fracturing, have moved operations to Pennsylvania, Mr. Gill said.[51]

In contrast, subsidiaries of supermajors such as ExxonMobil's XTO Energy and Shell's SWEPI[52] appear to have maintained their unconventional New York acreage rather than exited by selling leases or letting them expire.[53] Very large companies like these can afford to let their unconventional assets sit idle, playing the long game in a way that smaller and medium sized firms cannot. That said, Shell has in recent years sold a significant proportion of its US shale acreage,[54] apparently preferring to focus on more profitable LNG and offshore assets instead.[55] In its case it may simply be that any New York assets it holds are now virtually worthless in any event which means that no New York acreage sales have been apparent.

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[51] Mireya Navarro, *Bans and Rules Muddy Prospects for Gas Drilling*, N.Y. TIMES, Jan. 3, 2013, available at http://www.nytimes.com/2013/01/04/nyregion/bans-and-new-rules-make-gas-drillings-future-uncertain-in-new-york.html?_r=1. In Talisman's case, despite having considerable unconventional acreage in New York, it was it seems a conscious decision not to litigate (see Litvak, *supra* note 41 at 34). *See also* Daniel Wiessner, *NY Unlikely to Face Lawsuits Over Fracking Ban, Experts Say*, REUTERS, Dec. 18, 2014, available at http://www.reuters.com/article/2014/12/18/us-energy-fracking-newyork-lawsuits-idUSKBN0JW04D20141218: "Thomas West, an Albany attorney who represents some of the companies that have left New York, said his clients had taken their investments to the more than 30 states that allow fracking".

[52] Shell bought a range of Appalachian acreage, including in New York, from East Resources in 2010 for $4.7 billion (Andrew Maykuth, *Shell Pays $4.7B for Marcellus Firm*, PHIL. INQUIR., May 29, 2010, available at http://www.philly.com/philly/news/special_packages/inquirer/marcellus-shale/20100529_Shell_pays__4_7B_for_Marcellus_firm.html).

[53] Interview with Karen Moreau, Executive Director NY, American Petroleum Institute (API). In Dec. 2015, Shell's website stated that the company maintained acreage in New York: http://www.shell.us/about-us/projects-and-locations/appalachia-pennsylvania.htm. In September 2014, XTO stated that it held 43,000 acres in its southern tier counties of New York (Randy J Cleveland, *Policy, Responsibility and People: Leading the Way on Shale*, presented at Shale Insight, Marcellus Shale Coalition Pittsburgh, PA., Sept. 24, 2014, available at http://corporate.exxonmobil.com/en/company/news-and-updates/speeches/policy-responsibility-and-people-leading-the-way-on-shale).

[54] Much of the Appalachian acreage it bought from East Resources was sold in 2014 to Rex Energy (at a very significant loss). Also in 2014, it sold its Pinedale gas acreage in Wyoming to Ultra Petroleum and its interest in Haynesville Shale in Louisiana to Vine Oil and Gas. However, in its deal with Ultra Petroleum it also acquired some acreage in Pennsylvania (*see* Anya Litvak, *Shell Concentrating its Marcellus Holdings, Sells Off Other Shale Assets*, PITT. POST-GAZ., Aug. 14, 2014, available at http://powersource.post-gazette.com/powersource/companies/2014/08/14/Shell-concentrating-its-Marcellus-holdings-sells-off-other-shale-assets/stories/201408140284). It has also since 'accidentally' acquired some Appalachian and other shale assets through its takeover of BG Group, bought primarily for its assets such as LNG and offshore Brazil (see Joe Fisher, *Shales Barely Mentioned in Shell-BG Group Deal Talk*, NAT. GAS INTELL., Apr. 8, 2015, available at http://www.naturalgasintel.com/articles/101915-shales-barely-mentioned-in-shell-bg-group-deal-talk).

[55] A strategic direction cemented by its takeover of BG Group.

It is worth noting that Hirschman never regarded voice and exit as mutually exclusive and that is borne out here. There are cases such as Anschutz,[56] Lenape,[57] National Fuel,[58] and Norse Energy[59] where unsuccessful litigation has led to subsequent exit from the restrictive area. In Norse's case, that exit from New York State was effectively a forced exit via bankruptcy.[60]

It is also worth observing that exit in terms of unconventional oil and gas because of blocked opportunities does not necessarily mean an exit by the business from the area altogether. Thus for example in New York State, although as noted in the quote above, Talisman exited New York to take up unconventional opportunities elsewhere, it remains active in the state for the purposes of its existing conventional[61] operations in the Trenton/Black River area,[62] where it has around 80 wells (though with no new developments). And similarly with Lenape mentioned above, while it exited the town of Avon in New York State as far as unconventional operations were concerned, it continued with its longstanding conventional

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[56] "Anschutz is 'in the process of selling assets, surrendering leased lands and exiting New York,' Brent Temmer, a spokesman for the closely-held company, said in an e-mail" (Chris Dolmetsch *et al*., *Anti-Fracking Win in N.Y. Court May Deal Blow to Industry*, BLOOMB'G. BUS., June 30, 2014, available at http://www.bloomberg.com/news/articles/2014-06-30/n-y-cities-win-right-to-ban-fracking-oil-industry-loss);*see also* Denver Business Journal, *Anschutz Ending Drilling Efforts in New York*, Dec. 3 2012, available at http://www.bizjournals.com/denver/morning_call/2012/12/anschutz-ending-drilling-efforts-in.html.

[57] Interview with John Holko, President and owner, Lenape Resources.

[58] Litvak, *supra* note 41.

[59] Glenn Coin, *Norse Energy Shutting Down U.S. Operations as New York Hydrofracking Moratorium Continues*, Oct. 17, 2013, http://www.syracuse.com/news/index.ssf/2013/10/norse_energy_were_leaving_new_york_because_we_cant_frack.html.

[60] *Id*.

[61] Some of this has involved horizontal drilling, but not fracking (Marcellus Drilling News, *Details on Trenton-Black River Horizontal Drilling in NY State*, Nov. 21, 2014, available at http://marcellusdrilling.com/2014/11/details-on-trenton-black-river-horizontal-drilling-in-ny-state/).

[62] Litvak, *supra* note 41.

wells in the area.[63] Production from conventional wells operated by such companies of course means that their leases remain active for the purposes of possible future unconventional drilling, should the New York ban be lifted in the future.

Depending on their ownership category, property owners are likely to be in a somewhat different position in relation to exit. Many property owners – particularly those in areas with only a recent history of resource exploitation[64] – will own both the surface land and the minerals estate associated with it. If they then lease the minerals estate to an oil and gas company for drilling, then, assuming the well is commercial, they will also own the royalty interest which entitles them, under the terms of the lease to royalty payments from the operator on production. These payments can range from several thousand to hundreds of thousands of dollars or more per year based on the size of the acreage, oil prices, and the negotiation skills of the landowner or their agent.[65] Depending on the relevant state law, surface rights and mineral rights may be divided, and royalty interests can also be sold separately (*i.e.* a landowner may choose to keep the minerals estate but to sell the royalty interests from one or more wells). What happens with exit is likely to turn on the ownership category into which a property owner falls. In a more general, non-oil and gas, property development context, Epstein states of exit that:

[63] Interview with John Holko, Lenape.

[64] Timothy W Kelsey *et al*., *Marcellus Shale: Land Ownership, Local Voice, and the Distribution of Lease and Royalty Dollars*, CECD Research Paper Series, Pennsylvania State University, July 18, 2012, available at http://aese.psu.edu/research/centers/cecd.

[65] They will also receive a signing on bonus when they sign the lease, the size of which can, again, vary considerably from thousands to hundreds of thousands of dollars.

> It may well be that the developer has options to take the project elsewhere … but it surely does not follow that the landowner who wishes to sell to the developer has the same level of mobility or the same level of choices.[66]

In the current oil and gas context, that is also likely to be true of surface property owners who own the minerals estate (*i.e.* where there has been no division): assuming they live on the property, they are unlikely to be in the same position to leave the area in the face of a ban as a more mobile oil and gas company (the latter being more akin to Epstein's developer). However, where estates have been divided, then the minerals or royalty interest owner may well be from outside the area in the first place and thus for them, exiting is more about seeking better income-producing opportunities from property elsewhere rather than physically changing where they live. Of course this assumes they have the funds available and many may not. In principle a surface property owner might choose to do the same, staying where they are physically but investing in productive leases or royalties elsewhere; however again, not all landowners will have the funds to do so.

VII. VOICE

Although litigation is the main form of voice examined in the current article, it is worth noting that voice may also take the form of campaigning and political lobbying, which has been a key initial strategy for a number of companies to try to avoid local bans or moratoriums being passed in the first place. Taking just one example, in California it has been reported that "A coalition funded by Chevron, ExxonMobil, Occidental Petroleum and other oil giants donated roughly $2.1 million to the opposition campaign in San Benito

[66] Epstein, *supra* note 29 at 155.

County, outspending supporters 14-1".[67] However, where such efforts fail and bans or moratoriums are introduced by local governments, then one is reasonably likely to see litigation adopted as an alternative strategy by some economic actors.

Looking at the data on litigation presented earlier, the greatest puzzle appears to be why it is that smaller companies have greatly outweighed larger ones in choosing to litigate. After all, from a resources perspective, one might expect litigation to be more the preserve of the larger, financially better resourced companies, which are also more likely to have an in-house legal team and to be strategic 'repeat players' in Galanter's[68] terms.[69] For trade associations to bring cases is no surprise: they are well resourced and are there to solve what might otherwise be a collective action problem posed by which company will take on litigation challenging a ban when other companies will clearly benefit from free riding on such a challenge. But finding smaller, independent companies taking on a significant amount of the relevant litigation does seem somewhat surprising (at least relative to larger companies, since even these smaller oil and gas companies are still typically well resourced).

Rational choice theory may, however, provide us with an answer to this puzzle. Given that firms are accustomed to thinking in terms of costs and benefits of different courses of action,

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[67] Paul Rogers, *Fracking: Oil company Sues to Overturn San Benito County Fracking Ban; Could Affect Other Counties*, SAN JOSE MERCURY NEWS March 3, 2015, available at http://www.mercurynews.com/science/ci_27626990/fracking-oil-company-sues-overturn-san-benito-county. For New York examples, see BRIAN PAUL AND SUSAN LERNER, COMMON CAUSE, DEEP DRILLING, DEEP POCKETS IN NEW YORK STATE CAMPAIGN CONTRIBUTIONS AND LOBBYING EXPENDITURES BY FRACKING INTERESTS TO INFLUENCE PUBLIC POLICY (2014), available at http://www.commoncause.org/states/new-york/research-and-reports/NY_011314_Deep_Drilling_Deep_Pockets.pdf.

[68] Marc Galanter, *Why the "Haves" Come out Ahead: Speculations on the Limits of Legal Change*, 9 LAW & SOC REV 95 (1974).

[69] Isaac Unah, *Explaining Corporate Litigation Activity in an Integrated Framework of Interest Mobilization*, 5 BUSINESS AND POLITICS 65 (2003).

one might expect rational choice to be well suited to explaining decision-making in this context. The decision to litigate involves balancing the financial cost of taking a case to court against the probability of winning it and the size of the financial benefit to the plaintiff of overturning a fracking moratorium or ban.[70] A standard rational choice or law and economics assumption is therefore that a person will litigate where the expected benefits of doing so are greater than the expected trial costs.[71] Where this is the case, an economic actor will choose to exercise voice via litigating rather than, for example, deciding to exit to make use of opportunities in other local government areas without fracking bans or moratoriums.

How then does this enable us to account for the different decisions taken by small and large companies when it comes to fracking litigation? After all, in deciding to use litigation as voice, both are confronted by an inability to exit without significant financial cost. And on one level, the cost/benefit equation they are faced with appears to be similar: while the value of leases may be in the many millions, litigation costs are more likely to be measured in the hundreds of thousands of dollars. A number of factors may nevertheless help to explain the distinction. It should be pointed out at the outset that it is not simply a matter of smaller companies dominating onshore oil and gas exploration involving fracking (in which case one would expect them to be proportionately more involved in litigation). The perception has arisen that the industry has been centred around so-called ‘mom and pop’ companies. However, as Wang and Xue demonstrate, the actual data does not support this: in fact, a relatively low number of large companies (mostly large independents with a few integrated

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[70] FRANCISCO CABRILLO AND SEAN FITZPATRICK, THE ECONOMICS OF COURTS AND LITIGATION (2008).

[71] *Id*.; Holly J McCammon, *Labor's Legal Mobilization: Why and when do Workers File Unfair Labor Practices?*, 28 WORK AND OCCUPATIONS 143 (2001); Kathryn E Spier, *Litigation*, in HANDBOOK OF LAW AND ECONOMICS VOLUME 1, 259 (A Mitchell Polinsky and Steven Shavell eds., 2007).

companies) is responsible for by far the majority of shale wells drilled.[72] What else might explain the greater involvement of small operators in litigation therefore? For small firms, their blocked leases are likely to form a greater proportion of their overall assets. For large companies, in contrast, these leases probably represent only a small proportion of their operations. This means that larger firms can afford to let those assets drift rather more than small firms can, explaining in part why the latter may be more inclined to litigate as a result. Next, it is also likely that large companies will be more inclined to worry about reputational damage associated with lawsuits than smaller operators and may prefer instead to allow trade associations to take on proceedings. To analyse this in rational choice terms, the lost benefits caused by a particular ban or moratorium are thus lower for a larger company than they are for a smaller one because they are likely to be more marginal in nature for the former type of firm. And large companies will also weigh such benefits against the potential reputational costs of being seen as a Goliath taking on a small community David.

Rational choice theory can also help to explain changing patterns of litigation. As noted above, rational choice argues that the decision to litigate involves balancing the financial cost of taking a case to court against the probability of winning it and the size of the financial benefit of a win. A key factor in determining the probability of success is the previous success of cases. Where preemption victories have been won by others in the past, then that is likely to have incentivised further litigation by economic actors because the probability element is made greater. In New York State in contrast, a series of demoralising preemption

[72] Zhongmin Wang and Xue Qing, *The Market Structure of Shale Gas Drilling in the United States* Resources for the Future, No. dp-14-31 (2014).

defeats for economic actors[73] may be one reason why fracking litigation rates in the state have dropped off more recently.[74]

However, others have suggested that resources, or rather a lack of them, are behind the slow-down of litigation, not just in New York, but also nationally.[75] Without intervention to cut output by Opec, and with a glut of supply from US shale producers, energy prices tumbled in the latter half of 2014 and remained at low levels in 2015. With oil and gas prices at such lows and with the industry globally engaging in significant cost cutting as a result, expensive preemption litigation designed to free up costly investment in new drilling is now more likely to be regarded as an unnecessary luxury. Whether the same can be said of takings claims is slightly less clear: some property owners and oil and gas companies might now be tempted by the potential of a large damages claim; however, the dual uncertainty of the likely doctrinal success of such claims and, even if successful, of the potential for actually recovering significant sums from less well-off (and in a number of cases very small) local governments will undoubtedly put off many others.

[73] "As Brad Gill, executive director of the Independent Oil & Gas Association of New York, noted, of the five major lawsuits that have challenged the state moratorium or local bans, none have gone in favor of oil and gas interests. 'That was pretty depressing for the industry,' he said" (Litvak, *supra* note 41).

[74] Another state-specific reason may be the general decline in oil and gas companies continuing to operate in the state, with many, as already noted, having exited. However, property owners typically still remain and litigation is perhaps more likely to come from them now.

[75] "According to lawyers following the local control issue, a solid follow-up case to Munroe Falls may simply not exist yet. Zoning rules and drilling bans in some other Ohio cities, including Athens, Yellow Springs and Mansfield, have not faced industry challenges yet. And the collapse in oil prices means less industry fuel for challenges in those locales, which are not considered prime shale territory anyway, said BakerHostetler attorney Marty Booher" (Ellen M. Gilmer and Mike Lee, *Ohio Towns Play Wait-and-See in Wake of Drilling Ruling*, March 10, 2015, MIDWEST ENERGY NEWS, available at http://midwestenergynews.com/2015/03/10/ohio-towns-play-wait-and-see-in-wake-of-drilling-ruling/). *See also* Wiessner (*supra* note 51): "When Governor Andrew Cuomo announced a ban on fracking in New York on Wednesday, he predicted 'a ton of lawsuits' against the state. But that is unlikely as the end of a drilling boom has left the industry in no mood for a fight, industry experts and lawyers said."

From a rational choice perspective, the above in fact involves not only resources – which translate into the costs of litigation appearing higher because these will represent a greater proportion of overall company expenditure than during boom times – but also decreased likely benefits from winning a preemption challenge. With the latter, the benefits to be had from drilling wells are much lower in an era of low prices for oil and gas. And as for takings claims, there, the size of the benefits pot may be high, but the probability element is low, both in terms of doctrinal uncertainty and in terms of the likelihood of actually getting any damages award paid in the end.

Ideology also appears to have played a part in some lawsuits, although its precise role is hard to gauge. In *Vermillion v. Mora County*[76] for example, the plaintiffs' case was supported by the Mountain States Legal Foundation (MSLF), which describes itself as "a nonprofit, public-interest legal foundation dedicated to individual liberty, the right to own and use property, limited and ethical government, and the free enterprise system."[77] Because of the nature of the MSLF's mission, this case might be seen as an example of ideologically driven litigation, with the case's funding reflecting an ideological desire to uphold constitutional property rights. There are also other landowner cases where litigants have explained their decision to litigate in terms of seeking to protect their private property rights from municipal diktat. In *Cooperstown Holstein Corp. v. Town of Middlefield*[78] for example, the litigant Jennifer Huntingdon claimed that "She … wanted to stand up for landowners rights. Property owners, Jennifer explained, secured the land from the center of the earth up to the sky when they bought their land and, as she notes, who are five town officials to say what they can and

[76] No. 1:13-cv-01095 (New Mex. Dist. Ct., filed Nov. 11, 2013).
[77] https://www.mountainstateslegal.org/.
[78] *Supra* note 46.

cannot do with the resource they rightfully own?"[79] Similarly, in *Grafe-Kieklak v. Town of Sidney*,[80] one of the litigants, Inge Grafe-Kieklak also underlined the importance of property rights in a number of media articles and interviews associated with the case.[81] Nevertheless, a note of caution is warranted. In the case of litigants who stand to make money from their land if fracking is allowed to proceed, it is difficult to separate out a purely ideological view on private property rights from the financial rewards to which unimpeded property rights would give rise.

VIII. LOYALTY

While larger multi-national or national-scale companies are unlikely to feel a sense of loyalty to a particular state, county or municipality, one might hypothesise that smaller companies and surface property owners could be swayed by loyalty to remain and exercise voice rather than simply exiting as the first option. As we have seen, the data on who has litigated reveals that, among oil and gas companies, by far the greater proportion of lawsuits against bans and moratoriums has been instigated by smaller, local firms. Such companies will often have a close association with the locality: they will typically have drilling operations solely focused on one state and may also have long histories of drilling in particular municipalities. This is often mentioned on the 'about us' sections of their corporate websites.[82] For companies whose very identity is tied in with particular geographies, one might suppose that loyalty to place would mean that exiting to try opportunities elsewhere is far from ideal, even if it might

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[79] Rachael Bunzey, *A Brave Natural Gas Fight in Middlefield*, ENERGY IN DEPTH, Nov. 21, 2012, available at http://energyindepth.org/marcellus/a-brave-natural-gas-fight-in-middlefield/

[80] *Supra* note 36.

[81] *See, e.g.,* Inge Grafe-Kieklak, *Gasland Part II Leaves Landowners Out on the Streets*, May 1, 2013, http://energyindepth.org/marcellus/gasland-part-2-leaves-landowners-out-on-the-streets/; John Kehoe, *As New York's Gas Potential Evaporates, Locals Despair*, Jan. 16 2015, http://www.brw.com.au/p/national/as_new_york_gas_potential_evaporates_tr9E1Hm3VPSHFimuy4YoFP.

[82] *See, e.g.,* http://citadelexploration.com/four-generations/; and http://bassenergyco.com/.

make economic sense on paper; and that this would make them lean more towards litigation. However in interview, loyalty did not really register. In the case of one small company litigant, there was a degree of loyalty expressed towards those in the community who had supported the company in its fight, but no sense in which loyalty had led to a decision to litigate rather than to exit. Trade association interviewees expressed similar scepticism towards loyalty as a factor in explaining a turn to litigation.

With property owners, matters are more complicated. In the case of litigating property owners, most litigants in the case law were surface owners living in the area as well as owners of the minerals estate. In some cases, a degree of what might appear to be loyalty to place was very much verbalised by these surface owners. In *Cooperstown Holstein Corp. v. Town of Middlefield*[83] for example, the litigant was a farmer, Jennifer Huntingdon, who commented on her longstanding connections with the area and her desire to continue with these into the future:

> Coming from a long line of dairy farmers, Huntington said she continues the farm's history of concern for family, industry and community while creating a safe food product. Responsibility to the environment has been a long-time effort of the farm, she said …Many of us have been here for generations and want to pass the land to the next generation. We want to preserve our way of life[84]

However, loyalty arguably implies the ability to exit, but a decision to remain despite this ability. In the case of landowners living in a particular area – and particularly a farmer whose family has farmed there for generations – an ability to exit may be there but only really as a

[83] *Supra* note 46.
[84] Marjorie Struckle, *A Question of Property Rights*, Apr. 14, 2012, http://lancasterfarming.com/results/A-Question-of-Property-Rights-#.Vm87eEq3PIU.

remote possibility. What keeps people from moving house or farm may not be loyalty but rather inertia or lack of choice: moving is difficult and the opportunity to do so in terms of resources and family circumstances is not available to all. In other words, rather than loyalty, one might just as well say that it is inertia or an inability to exit easily that is more likely to lead to litigation.

It is therefore tempting to argue, in the case of small local oil and gas companies and resident landowners, that it is loyalty to place which makes them apparently more inclined to exercise voice via litigation: because they are locally based and because they have litigated rather than exited, it would be easy to conclude that this is evidence of a place-based loyalty. However, in reality, loyalty here is functioning more as an *ex post* label than something which helps one to explain a turn to litigation.[85]

CONCLUSION

In this article I have investigated what Hirschman's famous exit, voice and loyalty schema might contribute to our understanding of the responses of economic actors to bans and moratoriums on fracking. One clear contribution is in highlighting the existence of exit as a real strategic alternative to litigation for many such actors. In addition, Hirschman's account is often characterised as involving a tension between the market and politics, with exit representing the former and voice the latter. However, the current article has shown that litigation can also represent a form of voice: politics must therefore be viewed broadly so as

[85] This very much chimes with the criticisms of Hirschman's concept of loyalty offered by authors such as Brian Barry and Michael Laver: that it is an outcome and a post hoc equation filler rather than a theoretical variable with predictive or explanatory power: Brian Barry, *Review Article: "Exit, Voice, and Loyalty"*, 4 BRIT. J. POLIT. SCI. 79 (1974); Michael Laver, *"Exit, Voice, and Loyalty" Revisited: The Strategic Production and Consumption of Public and Private Goods*, 6 BRIT. J. POLIT. SCI. 463 (1976).

to include law and legal strategies alongside more traditional political avenues like campaigning and lobbying. In the end, however, the idea of loyalty seemed to possess less traction in relation to litigation than it perhaps possessed in the original consumer quality context that Hirschman was studying.

Regarding loyalty, it was hypothesised that loyalty to a locality or region may help to explain the puzzle of why small oil and gas companies and surface landowners have been involved in the majority of lawsuits against fracking bans and moratoriums. In the event, however, there was little evidence to support this in the case of oil and gas companies. And while there was some evidence of loyalty framing in the case of surface landowners, this was not particularly explicit. But more than that, insofar as loyalty connotes non-exit, it also implies a relatively straightforward ability to exit coupled with a conscious choice not to do so. With surface landowners, this requirement, necessary for loyalty to meaningfully apply, was typically absent: in many instances, exiting just was not a real option. Hirschman thus provides something of a mixed picture. On the one hand, for economic actors, exit is a potential strategic alterative to litigation. And it is instructive to conceive of litigation as a form of voice. But, on the other, loyalty has proved rather less useful as a concept here.

While loyalty was unable to solve the puzzle of the preponderance of smaller company plaintiffs in fracking litigation, rational choice theory did seem to unlock the puzzle. Small and large companies may both be staring at losses running into many millions of dollars as a result of bans and moratoriums. Nevertheless, the benefits of litigating are less marked for large companies for whom those many millions will be more marginal in terms of their overall operations; such companies must also balance these benefits against reputational costs that may arise from becoming involved in divisive litigation claims.