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“Monopoly Power, Political Power, and the Market for Bads”

by

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Note: It is expected that you will have reviewed the paper before the Seminar. Footnotes, several of which are mathematical, can be skipped. The following “reader’s guide” is provided by the author:

“For the time-constrained, please read the Introduction and Part III. (Most readers -- especially those with some economics familiarity -- will be able to intuit the argument in Parts I and II from the Introduction.) I am looking forward to your feedback on all aspects, and especially to hearing whether there are additional considerations raised by Pigouvian concentration that Part III fails to anticipate. (Also, as is hopefully apparent, the primary goal of this paper is not to convince anyone that the Justice Department messed up the A-B InBev/SABMiller merger, though I do believe that. The broader goal is to work toward developing a framework for thinking about Pigouvian concentration more generally, and perhaps to have a little bit of fun along the way.)”

Monopoly Power, Political Power, and the Market for Bads

Daniel J. Hemel*
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Suppose that a good generates significant negative externalities and that two producers of that good (or, we might say, that “bad”) seek to merge. Suppose, moreover, that antitrust authorities anticipate that the merger will lead to higher prices and lower consumption of the relevant bad. Suppose, too, that a first-best policy of a Pigouvian tax on the bad is unavailable due to political or institutional constraints. Should the antitrust authority allow the merger to proceed, on the theory that the merger’s anticompetitive effects will increase overall welfare?

The U.S. Justice Department faced a similar set of questions in 2015, when the beer giants Anheuser-Busch InBev and SABMiller sought to combine. This essay uses the merger between A-B InBev and SABMiller as a springboard for thinking about when, if ever, “Pigouvian concentration” is desirable. I use the term “Pigouvian concentration” to refer to a policy of allowing producers of bads to accumulate market power so that they set price and quantity closer to the levels that would be reached under an optimal Pigouvian tax. The essay first focuses on whether the Justice Department and Federal Trade Commission should pursue Pigouvian concentration in merger review. It identifies and addresses a number of concerns that a policy of Pigouvian concentration might raise. Among others: Would antitrust authorities be able to distinguish between “goods” and “bads,” and would they have sufficient information such that they could allow concentration up to (but not beyond) the point necessary for consumption of bads to approximate socially optimal levels? Would Pigouvian concentration lead to regressive redistributive consequences? Would producers of bads be able to price-discriminate such that concentration does not in fact reduce consumption? Would a policy of Pigouvian concentration create incentives for the generation of new (or worse) bads? And would Pigouvian concentration make producers of bads even more powerful politically, weakening the prospects for a first best Pigouvian tax in the future?

Merger review in antitrust is not the only domain in which these concerns are relevant. One might ask a similar set of questions about patent protection for inventions that generate negative externalities, or about trademark registration for ethnic slurs, or perhaps also about licensing requirements for attorneys. This essay ends by drawing lessons from the merger context that apply to other instances in which Pigouvian concentration is—or might be—pursued.

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Introduction

In October 2015, the Belgium-based brewer Anheuser-Busch InBev (A-B InBev) reached a deal to buy its UK-based rival SABMiller for \$104 billion—the largest beer deal in history.¹ The two brewers collectively controlled 28% of the global beer market² and 70% of the U.S. market,³ including such brands as Budweiser and Stella Artois (owned by A-B InBev) as well as Miller, Coors, Molson Canadian, and Blue Moon (majority-owned by SABMiller).⁴ The deal drew intense scrutiny from competition authorities across the globe, including the U.S. Justice Department. In July 2016, the Justice Department filed a complaint in federal district court in the District of Columbia seeking to stop the transaction.⁵ The complaint alleged that the merger would “lead[] to higher prices, fewer choices, and less innovative products for U.S. beer consumers.”⁶

The complaint, it turned out, was a precursor to a settlement agreement announced the same day between the Justice Department and A-B InBev, whereby A-B InBev agreed to divest itself of its stakes in SABMiller’s entire U.S. business.⁷ “The remedy we secured will help preserve and promote competition in the multi-billion dollar U.S. beer industry,” a deputy assistant attorney general said when the settlement was announced.⁸ The settlement agreement included a number

¹ Charles Riley, Anheuser-Busch InBev Agrees To Buy SABMiller in Biggest Beer Deal Ever, CNNMoney (Oct. 13, 2015), <http://money.cnn.com/2015/10/13/investing/ab-inbev-sabmiller-beer-merger/index.html>.

² Lisa Brown, A-B InBev Finalizes Acquisition of SABMiller, St. Louis Post-Dispatch, Oct. 10, 2016, http://www.stltoday.com/business/local/a-b-inbev-finalizes-acquisition-of-sabmiller/article_b89c5f50-9431-56e6-a187-f820ce5f3cf9.html.

³ Peter Frost, AB InBev-SABMiller Tie-Up Could Trigger Breakup of MillerCoors, Crain’s Chi. Bus., Sept. 16, 2015, <http://www.chicagobusiness.com/article/20150916/NEWS07/150919877/ab-inbev-sabmiller-tie-up-could-trigger-breakup-of-millercoors>.

⁴ These brands were owned by MillerCoors, in which SABMiller held a majority stake and the Canadian company Molson Coors held a minority interest.

⁵ Complaint, United States v. Anheuser-Busch InBev SA/NV, No. 16-1483 (D.D.C. filed July 20, 2016), <https://www.justice.gov/atr/file/877581/download>.

⁶ *Id.* at 3.

⁷ Michael J. de la Merced, Anheuser-Busch InBev Merger With SABMiller Wins U.S. Antitrust Approval, N.Y. Times, July 20, 2016, <https://www.nytimes.com/2016/07/21/business/dealbook/anheuser-busch-miller-merger-wins-us-antitrust-approval.html>. Most of the divestiture occurred through the sale of SABMiller’s stake in MillerCoors to Molson Coors for \$12 billion. AB InBev also agreed to sell brands including Grolsch and Peroni to Asahi Group Holdings of Japan for nearly \$3 billion. *Id.*

⁸ Press Release, U.S. Dep’t of Justice, Justice Department Requires Anheuser-Busch InBev to Divest Stake in MillerCoors and Alter Beer Distributor Practices as Part of SABMiller Acquisition (July 20, 2016), <https://www.justice.gov/opa/pr/justice-department-requires-anheuser-busch-inbev-divest-stake-millercoors-and-alter-beer>.

of measures beyond divestiture aimed at constraining A-B InBev's "ability to raise prices, either unilaterally or through coordination."⁹

And so A-B InBev got to complete its takeover of SABMiller;¹⁰ the Justice Department declared victory; and U.S. beer lovers avoided a rise in the price of their suds. Yet the end of this story is not an entirely happy one. The social costs of cheap beer (and cheap wine and cheap spirits) are significant. There exists something close to a scientific consensus that low alcohol prices lead to higher rates of mortality, motor vehicle accidents, sexual assault, and sexually transmitted diseases.¹¹ A 2005 study estimated that the negative externality generated by beer consumption, including externalized health care costs, productivity losses, and automobile crash costs, was approximately \$3.49 per six-pack in 1998 (58 cents per drink, or 85 cents CPI-adjusted to 2016).¹² A 2015 study by the Centers for Disease Control and Prevention estimated that the social cost of alcohol consumption (as of 2010) was about \$2.05 per drink (\$2.26 in 2016 dollars).¹³

One might pause at this point and observe that the social cost of beer and the social cost of alcohol are not one and the same: if the price of beer rises, then drinkers might switch from beer to wine and spirits. However, studies of the cross-price elasticity of alcoholic beverages tend to find that beer and spirits are imperfect substitutes, and that an increase in the price of beer results in a net reduction in total alcohol consumption notwithstanding a modest amount of substitution toward wine and spirits.¹⁴ Moreover, U.S. antitrust authorities have been working to keep spirits prices down as well. The Federal Trade Commission approved a joint venture between Diageo PLC and Pernod Ricard S.A. in 2001 only on the condition that Diageo divest itself of the

⁹ Id.

¹⁰ See Brown, *supra* note 2.

¹¹ For a comprehensive meta-analysis, see Alexander C. Wagenaar, Amy L. Tobler & Kelli Komro, Effects of Alcohol Tax and Price Policies on Morbidity and Mortality: A Systematic Review, 100 *Am. J. Pub. Health* 2270 (2010).

¹² Victor J. Tremblay & Carol Horton Tremblay, *The U.S. Brewing Industry: Data and Economic Analysis* 226 tbl.8.4 (2005).

¹³ Jeffrey J. Sacks et al., 2010 National and State Costs of Excessive Alcohol Consumption, 49 *Am. J. Preventive Med.* e73 (2015). The CDC study did not include a specific estimate of external costs, although it did estimate that the costs absorbed by government are about \$0.83 per drink. Another recent study estimated that the external cost of alcohol consumption absorbed by federal, state, and local governments is approximately \$200 per gallon of ethanol, or approximately \$180 per gallon above current federal and state levels. Note that a standard drink (e.g., 12 fluid ounces of 5% alcohol-by-volume beer) has 0.6 ounces of ethanol. \$180/gallon x 1 gallon/128 ounces x 0.6 ounces/standard drink = 84 cents per standard drink in 2013 dollars. Holley Shafer, Optimal U.S. State Alcohol Excise Taxes To Recover Government Cost of Excessive Consumption, 6 *World Med. & Health Pol'y* 231 (2014). Note that the Shafer study's calculation captures only the external costs of alcohol consumption borne by the government, not the costs absorbed by private individuals (e.g., victims of drunk driving and sexual assault).

¹⁴ For an overview of the literature and an estimate using cross-country panel data, see Henry Saffer, Alcohol Consumption and Tax Differentials Between Beer, Wine and Spirits (Nat'l Bureau of Econ. Research, Working Paper No. 3200, Dec. 1989).

Malibu rum business. The FTC also imposed several restrictions on information sharing between Diageo and Pernod with the stated goal of preventing price increases in the rum, gin, Scotch whisky, and Cognac markets.¹⁵

One might also respond that although the optimal price of beer and spirits is higher than the competitive price, the better way to deal with the negative externalities of alcohol consumption is through an alcohol tax rather than relaxed enforcement of antitrust law. This claim is almost certainly correct: as discussed below, the first-best outcome from a social welfare perspective generally involves a competitive market and a Pigouvian tax (i.e., a tax equal to the negative externality generated by the relevant good). But alas, efforts to raise alcohol taxes have hit obstacles in Congress and state houses,¹⁶ and effective tax rates on alcohol have fallen in recent decades.¹⁷ What should antitrust authorities do when political economy constraints render the imposition of an optimal alcohol tax infeasible—at least for the time being?

This question is not unique to the alcohol industry. Authorities in the United States and abroad enforce antitrust laws not only with respect to goods and services, but also with respect to (what we might call) “bads” and “disservices”—products such as tobacco and sugary soft drinks and fossil fuels that generate significant negative externalities. In March 2015, the FTC approved a merger between tobacco companies Reynolds American Inc. and Lorillard Inc. only on the condition that Reynolds sell its Winston, Kool, Salem, and Maverick brands to a third party. The FTC said that the divestiture condition would preserve competition in the cigarette industry and reduce the risk of a cigarette price increase.¹⁸ The FTC took this action notwithstanding the widespread view among economists and public health scholars that the socially optimal cigarette price is much higher than the competitive price.¹⁹ The FTC also famously fought Coca-Cola’s efforts to acquire Seven-Up and PepsiCo’s bid for Dr. Pepper,²⁰ even though higher prices for sugary soft drinks would likely lead to lower rates of obesity and lower obesity-related health

¹⁵ Press Release, Fed. Trade Comm’n, With Conditions, FTC Approves Joint Acquisition of Seagram Spirits and Wine by Diageo PLC and Pernod Ricard S.A.: To Remedy Likely Anticompetitive Effects, Diageo to Divest Malibu Rum Business Worldwide (Dec. 19, 2001), <https://www.ftc.gov/news-events/press-releases/2001/12/conditions-ftc-approves-joint-acquisition-seagram-spirits-and>.

¹⁶ See, e.g., Patricia A. Morgan, Power, Politics and Public Health: The Political Power of the Alcohol Beverage Industry, 9 *J. Pub. Health Pol’y* 177 (1988).

¹⁷ See *infra* note 82 and accompanying text.

¹⁸ Press Release, Fed. Trade Comm’n, FTC Requires Reynolds and Lorillard to Divest Four Cigarette Brands as a Condition of \$27.4 Billion Merger: Winston, Kool, Salem, and Maverick Will Be Sold to British Tobacco Marketer Imperial (May 26, 2015), <https://www.ftc.gov/news-events/press-releases/2015/05/ftc-requires-reynolds-lorillard-divest-four-cigarette-brands>.

¹⁹ See, e.g., Jonathan Gruber & Botond Koszegi, A Modern Economic View of Tobacco Taxation (2008),

http://global.tobaccofreekids.org/files/pdfs/en/modern_economic_view_taxation_en.pdf.

²⁰ See Nathaniel C. Nash, FTC Acts To Block Soda Deals, *N.Y. Times*, June 21, 1986, <http://www.nytimes.com/1986/06/21/business/ftc-acts-to-block-soda-deals.html>.

care costs.²¹ And in May 2016, oilfield services providers Halliburton and Baker Hughes called off a merger after the U.S. Justice Department filed a lawsuit alleging that the transaction would result in higher oil prices.²² The Justice Department took this step despite the consensus among economists that the optimal price of fossil fuels is significantly higher than the price today.²³ And again, the substitution argument—here, that a higher price of oil would lead to a shift toward coal—loses much of its force when one considers that the FTC has taken an aggressive approach to merger review in the coal industry as well.²⁴

A handful of authors have suggested that antitrust enforcement with respect to the tobacco industry might be misguided.²⁵ This essay extends the analysis to “markets for bads” more

²¹ See, e.g., Kelly D. Brownell et al., *The Public Health and Economic Benefits of Taxing Sugar-Sweetened Beverages*, 361 *N. Engl. J. Med.* 1599 (2009).

²² See Complaint, *United States v. Halliburton Co.*, No. 16-233 (D. Del. filed Apr. 6, 2016), <https://www.justice.gov/opa/file/838651/download>; Mike Stone, *Halliburton and Baker Hughes Scrap \$28 Billion Merger*, Reuters (May 2, 2016), <http://www.reuters.com/article/us-bakerhughes-m-a-halliburton-idUSKCN0XS1KW>.

²³ See Peter Howard & Derek Sylvan, *Institute for Policy Integrity, Expert Consensus on the Economics of Climate Change* (Dec. 2015), <http://policyintegrity.org/files/publications/ExpertConsensusReport.pdf>.

²⁴ See, e.g., Press Release, Fed. Trade Comm’n, *FTC To Challenge Arch Coal’s Proposed Acquisition of Triton Coal Company* (Mar. 30, 2004), <https://www.ftc.gov/news-events/press-releases/2004/03/ftc-challenge-arch-coals-proposed-acquisition-triton-coal-company>.

²⁵ See Brian Dean Abramson, *Let Them Eat Smoke: The Case for Exempting the Tobacco Industry from Antitrust*, 6 *Cardozo Pub. Law, Policy & Ethics J.* 345 (2008); Daniel Crane, *Harmful Output in the Antitrust Domain: Lessons from the Tobacco Industry*, 39 *Ga. L. Rev.* 321 (2005); Katherine Shats, *Competing To Smoke—When Antitrust Law Undermines Public Health*, *O’Neill Inst. for Nat’l & Global Health Law* (June 11, 2015), <http://www.oneillinstituteblog.org/competing-to-smoke-when-antitrust-law-undermines-the-public-health>. A working paper by Luca Lambertini and Andrea Mantovani raises a similar suggestion with respect to polluting industries. Luca Lambertini & Andrea Mantovani, *Collusion Helps Abate Environmental Pollution: A Dynamic Approach* (Oct. 30, 2007) (unpublished manuscript), <https://core.ac.uk/download/pdf/6256158.pdf>. None of these authors considers the range of arguments for and against enforcement analyzed here.

James Buchanan famously advanced an analogous argument in the context of organized crime (i.e., that allowing cartelization in the crime market might increase welfare overall). See J. M. Buchanan, *A Defense of Organized Crime?*, in *Economics of Crime and Punishment* 119 (Simon Rottenberg ed., 1973). Christopher Cotropia and James Gibson have suggested that patents over products that generate negative externalities might be welfare-enhancing as well. See Christopher A. Cotropia & James Gibson, *The Upside of Intellectual Property’s Downside*, 57 *UCLA L. Rev.* 921 (2010). Omri Ben-Shahar has made a similar argument in the context of trademarks on racial slurs. See Omri Ben-Shahar, *Let’s End Trademark Piety. Racial Slurs Should Be Trademarked—It Will Only Reduce Their Use*, *Forbes.com* (Jan. 17, 2017), <http://www.forbes.com/sites/omribensshahar/2017/01/17/lets-end-trademark-piety-racial-slurs-should-be-trademarked-it-will-only-reduce-their-use>. These arguments are addressed at greater length in Part IV.

broadly.²⁶ I use A-B InBev’s tie-up with SABMiller as a springboard for considering whether antitrust authorities ought to adopt a policy of “Pigouvian concentration”²⁷: allowing producers of bads to merge when the merger would raise the price—and reduce the quantity—of the relevant bad. I weigh the case for a Pigouvian concentration policy against the arguments for what I call “the neutrality position”: the view (dogma in the antitrust world today) that competition authorities should brook no distinction between goods and bads.

The essay anticipates and analyzes a number of arguments in favor of the neutrality position, including the following:

- (1) Antitrust authorities might lack the institutional capacity to distinguish between “goods” and “bads,” or might lack the ability to calibrate enforcement in markets for bads so as to push quantity to (but not below) the socially optimal level;
- (2) Existing statutes might stand in the way of a Pigouvian concentration policy;
- (3) Allowing producers of bads to charge supracompetitive prices might lead to regressive redistributive consequences, and efforts to address these redistributive consequences through taxation may encounter the same political economy obstacles as Pigouvian taxes;
- (4) Producers of bads might be able to price-discriminate successfully, in which case concentration will be purely redistributive and will do nothing to reduce consumption of bads;
- (5) A norm allowing producers of bads to capture supracompetitive profits may encourage increased investment in the development of new bads, or may lead producers to invest more in R&D to increase the consumption of existing bads;
- (6) Concentration in markets for bads may increase productive efficiency (e.g., producers may enjoy economies of scale), the effects of which may partially or fully offset the quantity reduction brought about by supracompetitive prices;

²⁶ Christopher Leslie and Peter Hammer have suggested that courts should allow a “market failure” defense in antitrust cases involving markets for goods and services that generate negative externalities. See Peter J. Hammer, *Antitrust Beyond Competition: Market Failures, Total Welfare, and the Challenge of Intramarket Second-Best Tradeoffs*, 98 Mich. L. Rev. 849, 860-64 (2005); Christopher R. Leslie, *Achieving Efficiency Through Collusion: A Market Failure Defense to Horizontal Price-Fixing*, 81 Cal. L. Rev. 243 (1993). These arguments are addressed at greater length in Section III.B.

²⁷ The phrase “Pigouvian concentration” is—as best I know—original to this essay, although as emphasized in Part IV, versions of Pigouvian concentration have been advocated or adopted in a variety of settings (without the advocates or adopters necessarily realizing that these similar policies in disparate settings were variations on the same theme).

- (7) Concentration in markets for bads may be difficult to reverse if innovation reduces the social costs associated with those bads;
- (8) Concentration in markets for bads may enhance the political power wielded by producers of bads, making it even less likely that anything like an optimal Pigouvian tax can be adopted in the future.

I examine each of these concerns in more detail in the pages that follow. I arrive at the (tentative) conclusion that authorities should relax enforcement of antitrust law in markets for bads under specific circumstances, notwithstanding the real risks that relaxed enforcement entails. The broader—and perhaps less controversial—claim is that scholars should think critically and carefully about the merits of using non-tax instruments to mitigate externalities when Pigouvian taxes are politically off the table. We should not reject Pigouvian concentration out of hand, but nor should we embrace Pigouvian concentration without at least some reservations.

Part I of this essay lays out the basic economic intuition underlying the claim that concentration in markets for bads can increase social welfare under certain conditions. Part II assesses the advantages of Pigouvian taxation as a mechanism for addressing negative externalities, and then considers the political feasibility of Pigouvian prescriptions. Part III walks through the primary arguments in favor of the neutrality position and concludes that none of these arguments ultimately overwhelms the basic case for Pigouvian concentration when political obstacles prevent implementation of a Pigouvian tax. Part IV considers extensions of the antitrust analysis to other areas of law involving negative externalities—and to the negative externalities associated with the practice of law.

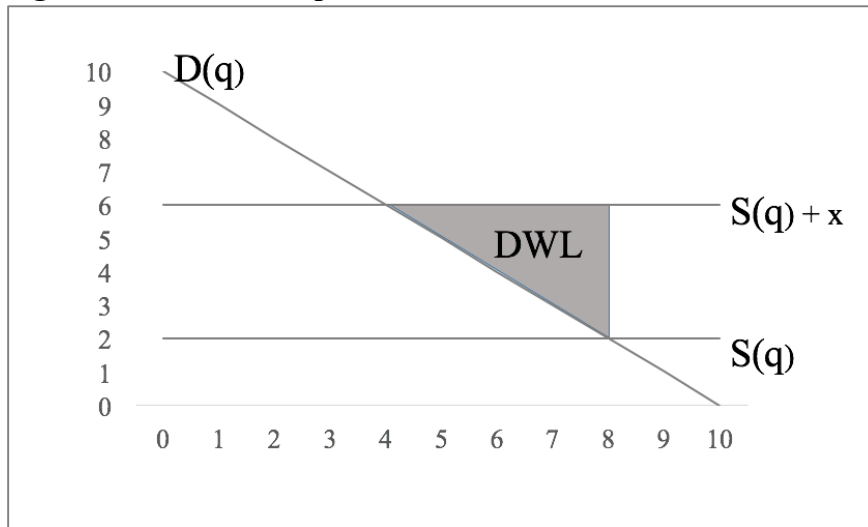
I. Monopolies and Externalities

The argument against antitrust enforcement in markets for bads is based on the proposition that, at least under certain conditions, the emergence of a monopoly or oligopoly can increase social welfare. The following part illustrates the basic economic intuition underlying this claim.

Consider the simple case in which firms supply a product (say, beer) characterized by a downward-sloping demand function and constant marginal costs. Suppose that marginal cost ($S(q)$) is 2 per beer and the demand function is given by $D(q) = 10 - q$. Under conditions of perfect competition, the price and quantity of beer reflect the intersection of the demand and marginal cost curves: 8 units of beer are supplied, and the price of beer is 2 per unit.

Now suppose that the negative externality (x) generated by beer consumption is 4 per unit. These negative externalities come in the form of health costs borne by the government (e.g., through Medicare or Medicaid), motor vehicle crash costs borne by other drivers, pedestrians, and cyclists, costs to victims of sexual assault, and so on. The social cost of supplying one unit of beer, then, is 6 rather than 2. The socially optimal quantity of beer, q^* , is given by $10 - q^* = 2 + x$, or $q^* = 4$ when $x = 4$. The deadweight loss from excessive beer consumption under perfect competition is 8 (with the deadweight loss calculation relegated to the margin²⁸).

²⁸The deadweight loss, $L(q)$, is equal to:

Figure 1. Perfect Competition

The most straightforward way to bring the quantity of beer down to the socially optimal level would be to impose a Pigouvian tax (t) on beer of 4 per unit. The consumer who was previously willing to pay a price of $10 - q$ for a beer is now willing to pay only $10 - q - 4$ (with the last term reflecting the tax). Now, the quantity of beer under perfect competition falls from 8 units to 4 units. The government will raise revenue of tq^* , or $4/\text{unit} \times 4$ units, or 16. The deadweight loss of excessive beer consumption will vanish.

There is, however, an alternative way to achieve the same socially optimal result: the antitrust authority can allow beer producers to merge with one another so that a beer monopoly emerges. The beer monopolist will set the price of beer so as to maximize its profit function, which it does by setting the price equal to 6 per unit and producing 4 units of beer.²⁹ The monopolist makes a

$$\frac{(q - q^*)(C + x - D(q))}{2}$$

where C represents the (here constant) marginal cost of beer production.

$$\text{Substituting terms: } L(8) = \frac{(8 - 4)((2 + 4) - (10 - 8))}{2} = 8$$

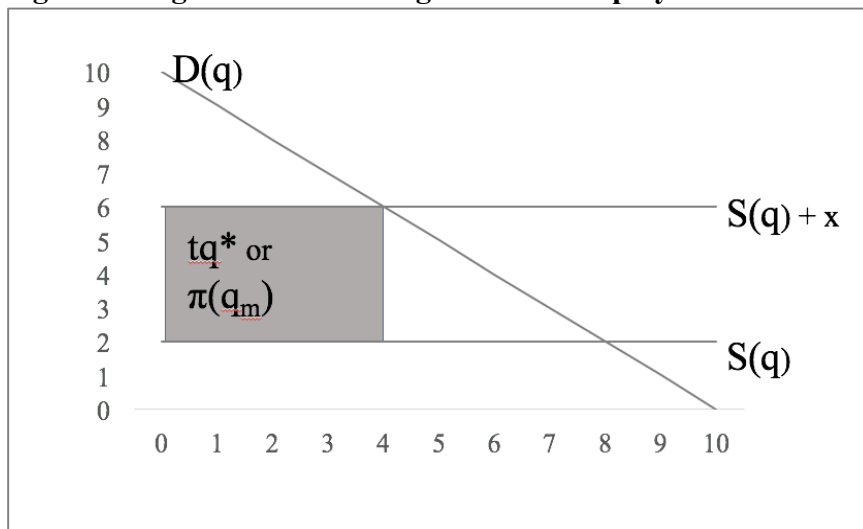
²⁹ The monopolist's profit function, $\pi(q_m)$, is given by $q_m((10 - q_m) - 2)$, or $8q_m - q_m^2$. The monopolist maximizes profits when:

$$\begin{aligned} \pi'(q_m) &= 0 \\ 8 - 2q_m &= 0 \\ q_m &= 4 \end{aligned}$$

The monopolist sets price equal to $D(4)$, or $10 - 4 = 6$.

profit of 4 per beer (price of 6 minus cost of 2), or a total profit of 4/beer x 4 beers = 16, which is—not coincidentally—the same amount that the government would have raised if it had imposed the optimal Pigouvian tax. The quantity of beer consumed under monopoly (q_m) is equal to the socially optimal quantity q^* , and so there is no deadweight loss. We might call this a case of “Pigouvian monopoly”: the monopolist’s profit-maximizing price results in the same output as the Pigouvian tax.

Figure 2. Pigouvian Tax or Pigouvian Monopoly



The basic model is—of course—jerry-rigged to generate this result. Monopolization would not eliminate deadweight loss if the negative externality per unit of beer consumer were greater than 4. Yet even under those circumstances, monopolization would reduce (though not eliminate) deadweight loss. Suppose that the negative externality per unit of beer is 5. The socially optimal quantity of beer is now given by $10 - q^* = 2 + 5$, or $q^* = 3$. Deadweight loss under perfect competition is now 12.5.³⁰ A monopolist still would maximize profits at $q_m = 4$, though, and so the deadweight loss of excessive beer consumption under monopoly is 0.5.³¹

Monopolization would also not eliminate deadweight loss if the negative externality per unit of beer consumer were less than 4. Suppose that the negative externality per unit of beer is 3. The

$$^{30} \quad L(q) = \frac{(q - q^*)(C + x - D(q))}{2}$$

$$L(q) = \frac{(8 - 3)(2 + 5 - (10 - 8))}{2} = 12.5$$

$$^{31} \quad L(q_m) = \frac{(q_m - q^*)(C + x - D(q_m))}{2}$$

$$L(q) = \frac{(4 - 3)(2 + 5 - (10 - 4))}{2} = 0.5$$

socially optimal quantity of beer is now 5 units, and the deadweight loss under monopoly is again 0.5.³² That is, the deadweight loss when there is one too many units of beer is the same as the deadweight loss when there is one too few.

Note that the antitrust authority may be able to bring the quantity of beer to the optimal level (here, 5 units) even when the quantity supplied by the profit-maximizing monopolist is below the optimal level (here, 4 units). The antitrust authority can do so by allowing what we might call “Pigouvian concentration”: mergers (perhaps coupled with partial divestitures) that result in producers enjoying market power short of monopoly. Yet this capability is not symmetrical: when the quantity set by the monopolist to maximize profits is greater than the socially optimal quantity, then there is no obvious mechanism—short of Pigouvian taxation or quantity regulation—that will cause the monopolist to set output equal to q^* .

To sum up so far: Under some conditions, with respect to goods that generate negative externalities (i.e., “bads”), market concentration can serve to eliminate deadweight loss just as Pigouvian taxation can accomplish the same result. A key difference between Pigouvian taxation and Pigouvian concentration is that government revenues under a Pigouvian tax become private profits to the firms wielding market power. Assuming that the antitrust authority can calibrate enforcement so as to achieve concentration less than full monopoly, concentration can eliminate deadweight loss even when the monopolist would set quantity below the socially optimal quantity. (Recall that the antitrust authority can accomplish this result by mandating partial divestiture.) However, when the socially optimal quantity is below the quantity that maximizes monopoly profits, the antitrust authority can only reduce—not eliminate—the deadweight loss of bads.

II. The Promise and Politics of Pigouvian Taxation

At this point one might ask: Even if the model in Part I matches reality, and Pigouvian concentration can reduce consumption of bads to the socially optimal level just as Pigouvian taxation can, why not use the Pigouvian tax? Implementing the Pigouvian tax seems much simpler: all the tax authority has to do is to calculate the external cost of the bad and then to impose a tax equal to the external cost. Accomplishing the same result through antitrust law requires (1) that the antitrust authority know the socially optimal quantity and (2) that the antitrust authority know the level of enforcement that will result in market concentration such that consumption falls to the socially optimal level. Moreover, under some circumstances the antitrust authority cannot bring consumption all the way down to the socially optimal level because the quantity that allows the monopolist to maximize profits, q_m , is greater than the

³² When $x = 3$, the socially optimal quantity is q^* such that $10 - q^* = 2 + x$, or $q^* = 5$. The deadweight loss under monopoly is then:

$$L(q_m) = \frac{(q_m - q^*)(C + x - D(q_m))}{2}$$

$$L(q_m) = \frac{(4 - 5)(2 + 3 - (10 - 4))}{2} = 0.5$$

socially optimal quantity, q^* . And even setting aside the informational challenges of Pigouvian concentration, and even assuming that $q_m \leq q^*$ (such that the antitrust authority can bring consumption down to the socially optimal level by allowing a monopoly to form or by allowing mergers short of monopolization), the government would presumably prefer the Pigouvian tax over the Pigouvian monopoly. Recall that with the Pigouvian tax, the tax revenue of tq^* flows into the government's coffers, while with the Pigouvian monopoly, profits of $\pi(q_m)$ flow to the monopolist. Even when $tq^* = \pi(q_m)$ as in Part I, the government would almost certainly want those dollars be its dollars rather than the monopolist's dollars.³³

So why ever resort to Pigouvian concentration? The answer is, in a word, politics. Three distinct obstacles stand on the path to Pigouvian taxation.

The first is institutional: taxation generally requires legislative action, and that requirement multiplies the number of veto players who might prevent a tax from taking effect. Note, though, that there may be a number of circumstances in which administrative agencies can impose Pigouvian taxes within the framework of existing statutes through their notice-and-comment rulemaking authority. (Jonathan Masur and Eric Posner have argued that this is so with respect to the Clean Air Act, Clean Water Act, various banking and securities laws, and the Occupational Safety and Health Act.³⁴) Even so, the notice-and-comment rulemaking process is not costless, and rulemaking may open agencies to court challenges.

Pigouvian concentration, by contrast, results from the nonenforcement of antitrust laws rather than the promulgation of new rules. It is, as a general matter, easier to do less than to do more. And at it least in the United States, antitrust authorities enjoy broad enforcement discretion.³⁵ If the Justice Department and the Federal Trade Commission want a merger to go through, they do not need Congress to pass a new law, and they do not need to promulgate a new rule. The merger may still be challenged by in a private lawsuit brought by competitors or customers, though it is the merging firms (rather than the agencies) who will have to defend against such a lawsuit, and it is very difficult for either competitors or customers to stop a merger this way.³⁶ Indeed, the last example of a merger that was approved by the Justice Department or FTC but then blocked by a private-party lawsuit may date as far back as 1985.³⁷

³³ Consider that governments generally impose business income taxes that transfer dollars from private firms to the public fisc at positive social cost (administrative and compliance costs, deadweight loss, etc.). This is so because the marginal (social) utility of an additional \$1 in government hands is greater than the marginal utility of an additional \$1 to the private firm (or so the government presumably thinks).

³⁴ Jonathan S. Masur & Eric A. Posner, *Toward a Pigouvian State*, 164 U. Pa. L. Rev. 93 (2015).

³⁵ See William F. Baxter, *Separation of Powers, Prosecutorial Discertion, and the "Common Law" Nature of Antitrust Law*, 60 Tex. L. Rev. 661 (1982).

³⁶ See M. Sean Royall & Adam J. DiVincenzo, *When Mergers Become a Private Matter: An Updated Antitrust Primer*, *Antitrust*, vol. 26, no. 2, Spring 2012, at 41.

³⁷ Incidentally, the 1985 case involved a merger between two beer companies. *Christian Schmidt Brewing Co. v. G. Heileman Brewing Co.*, 600 F. Supp. 1326, 1333 (E.D. Mich.), *aff'd*, 753 F.2d 1354 (6th Cir. 1985); see Royall & DiVincenzo, *supra* note 36, at 42 & n.18.

A second obstacle to Pigouvian taxation is psychological: “tax” is a dirty word.³⁸ Perhaps it is possible to reduce resistance to Pigouvian taxation either by labeling such taxes as “fees” or by earmarking the revenues for popular programs,³⁹ though this strategy does not seem to succeed across all contexts.⁴⁰ To be sure, “monopoly” may be a dirty word as well: the literature on the political psychology of antitrust enforcement is scant, and we cannot say whether Pigouvian concentration will “sell” better than Pigouvian taxation. But insofar as a policy of Pigouvian concentration can be implemented by an administrative agency insulated from political pressures, it may not be necessary to “sell” Pigouvian concentration at all (at least not to voters).

A third obstacle to Pigouvian taxation is a public choice problem. The “losers” from a Pigouvian tax are producers of bads (in the running example, beer), who will see demand for their goods decline, as well as consumers of bads, who will see after-tax prices rise. The “winners” are future victims of bads (or, more precisely, individuals who would have been victims of bads but for the reduction in consumption brought about by the Pigouvian tax). The winners also are taxpayers who do not consume the relevant bads and who will benefit indirectly from the revenue raised by the Pigouvian tax (in the running example, teetotalers). As may be apparent already, producers and consumers have a built-in advantage against future victims and teetotalers in the political competition over Pigouvian taxation.

To begin with, producers and consumers are identifiable individuals and firms who likely know that they stand to lose from adoption of the Pigouvian tax. Moreover, with respect to most bads, producers will be a relatively concentrated group whose members are connected by trade associations and other intra-industry ties. On top of this, producers and consumers are connected to each other through their transactional relationship. For all these reasons, we might expect producers to organize effectively against the Pigouvian tax and to bring in consumers as allies.

On the other side, future victims of bads probably do not know that they are future victims at all. Only the clairvoyant can foresee that they will be the victim of a drunk driver on a future date. As for the taxpayers who do not consume the relevant bads, the benefits of Pigouvian taxation are uncertain. If revenues raised through Pigouvian taxation allow the government to reduce income taxes or other consumption taxes, then teetotaling taxpayers will indeed be better off, though they may not know why their taxes declined. Alternatively, the government may use the revenues raised through Pigouvian taxation for spending programs, and the beneficiaries of those spending programs may not know that they are winners from the Pigouvian tax either.

³⁸ See, e.g., Christopher C. Fennell & Lee Anne Fennell, *Fear & Greed in Tax Policy: A Qualitative Research Agenda*, 13 *Wash. U. J. L. & Pol’y* 75 (2003); Masur & Posner, *supra* note 34, at 141-43.

³⁹ See Steffen Kallbekken, Stephan Kroll & Todd L. Cherry, *Do You Not Like Pigou, or Do You Not Understand Him? Tax Aversion and Revenue Recycling in the Lab*, 62 *J. Envtl. Econ. & Mgmt.* 53 (2011); Edward A. McCaffery & Jonathan Baron, *Thinking About Tax*, 12 *Psychol. Pub. Pol’y & L.* 106 (2006).

⁴⁰ On the limits of earmarked taxes, see Daniel Hemel & Ethan Porter, *Aligning Taxes and Spending: Theory and Evidence* (2017) (unpublished manuscript).

For all these reasons, organizing a coalition to support the Pigouvian tax will be difficult. In some instances, a well-organized interest group may emerge that seeks to reduce consumption of a particular bad for reasons rooted in religion, morality, personal experience, or other sources. With respect to alcohol taxes, we might expect Mothers Against Drunk Driving⁴¹ (and perhaps certain religious groups as well⁴²) to play this role. We might also expect to see cancer survivors lobbying for cigarette taxes⁴³ or environmentalists lobbying for a carbon tax.⁴⁴ And yet these interest groups will face an arduous challenge in attracting allies, given that the more direct beneficiaries of Pigouvian taxation are diffuse and difficult to identify.

Pigouvian concentration, on the other hand, has a built-in support group: the firms that seek to merge. The prospect of Pigouvian concentration splits producers into two, with the merging firms in favor and other producers against. (In the A-B InBev-SABMiller case, independent craft brewers met with members of Congress to lobby against the merger—ultimately without success.⁴⁵) Whereas Pigouvian taxation elicits united opposition from producers of bads, Pigouvian concentration sows division within the bads industry—potentially making implementation more feasible. And recall, again, that a policy of Pigouvian concentration requires no new legislation to implement, and so faces fewer vetogates.

III. The Uneasy Case for (and Against) Antitrust Enforcement in Markets for Bads

⁴¹ See James C. Fell & Robert B. Voas, *Mothers Against Drunk Driving (MADD): The First 25 Years, 7 Traffic Injury Prevention* 195 (2006).

⁴² See Douglas Coate & Michael Grossman, *Effects of Alcohol Beverage Prices and Legal Drinking Ages on Youth Alcohol Use*, 31 *J. L. & Econ.* 145, 158-59 (1988).

⁴³ See, e.g., *Cancer Survivors Lobby for Cigarette Tax Increase*, *Radio Iowa* (Feb. 26, 2004), <https://www.radioiowa.com/2004/02/26/cancer-survivors-lobby-for-cigarette-tax-increase>.

⁴⁴ Interestingly, the effort to implement a carbon tax in Washington state through a ballot measure split the environmentalist community, with some objecting to the fact that revenues would have been earmarked for tax reductions and rebates rather than clean energy projects, water quality improvement, and assistance to communities disproportionately harmed by emissions. See Rebecca Leber, *Inside the Carbon Tax Fight That's Dividing Environmentalists*, *Mother Jones* (Nov. 1, 2016), <http://www.motherjones.com/environment/2016/11/washington-carbon-tax-i732>. The measure ultimately failed, with only 42% of voters casting their ballots in favor. See Lewis Kamb, *Washington Voters Reject Initiative To Impose Carbon Tax on Fossil Fuels*, *Seattle Times*, Nov. 9, 2016, <http://www.seattletimes.com/seattle-news/politics/carbon-emissions-tax-initiative-732>.

The fact that the Washington carbon tax faltered on the subject of earmarking suggests a caveat to the conventional wisdom that earmarking can increase support for a Pigouvian tax. When revenues are not earmarked, multiple constituencies may anticipate the possibility that they will benefit from a Pigouvian tax. The decision not to earmark a proposed Pigouvian tax can defer competition over revenues to a later date—and thus reduce the risk that conflict over revenues will divide constituencies that otherwise would have supported the tax.

⁴⁵ Lisa Brown, *Craft Brewers Eye Merger of A-B InBev and SABMiller Warily*, *St. Louis Post-Dispatch*, June 26, 2016, http://www.stltoday.com/business/local/craft-brewers-eye-merger-of-a-b-inbev-and-sabmiller/article_b11a1daa-5c7d-59aa-b859-cf14829d19c9.html.

By this point the nub of the case against antitrust enforcement in markets for bads should be clear: insofar as antitrust enforcement prevents producers from merging (or cartelizing) and reducing the consumption of bads, then antitrust enforcement accomplishes a perverse result. Yet it would be premature to conclude that authorities should therefore refrain from enforcing antitrust laws with respect to markets for bads: a case can be made for enforcing antitrust laws in such markets just as antitrust laws are enforced in markets for “goods.” This part considers the strongest arguments in favor of the neutrality position (i.e., the view that antitrust authorities should be neutral between goods and bads and should enforce antitrust law the same way in both contexts).

A. Institutional Capacity

A first argument for the neutrality position is that the alternative exceeds the institutional capacity of antitrust authorities. It is hard enough to determine whether a merger or other potentially market-concentrating action will yield significant anticompetitive effects—harder still to determine whether the market is one for “bads” or for “goods.” And whereas the agencies and units enforcing antitrust laws (principally, the FTC and the Justice Department’s Antitrust Division) have honed their skills at measuring market concentration, the task of distinguishing “bads” from “goods” lies entirely out of these agencies’ past experiences. Consider, moreover, that matching the output result of a Pigouvian tax through market concentration requires the agency to determine (1) the socially optimal quantity of the relevant bad and (2) the level of antitrust enforcement that will lead to consumption equal to the social optimum.

Stating the problem is almost enough to show that the antitrust authority will fail to solve it, at least insofar as “solving” the problem means moderating consumption so as to match the socially optimal quantity precisely. Yet Pigouvian concentration can be welfare-increasing even if the antitrust authority misses the optimality mark. After all, the deadweight loss from excessive consumption of bads is increasing over the distance between the status quo and the social optimum, and so movement in the right direction (which is to say, the left direction on the x-axis) enhances welfare. Moreover, the first unit of movement toward the social optimum increases welfare more than the next. Getting consumption in the right region matters a lot; getting consumption exactly right matters less.

To illustrate: Consider again the example in Part I. Consumption under perfect competition is 8 units; the socially optimal quantity is 4 units; and deadweight loss under perfect competition is 8. If consumption declined 1 unit from 8 units to 7 units, then deadweight loss would decline by 3.5.⁴⁶ If consumption declined another 1 unit from 7 units to 6 units, then deadweight loss would

$$^{46} \quad L(q) = \frac{(q - q^*)(C + x - D(q))}{2}$$

$$L(7) = \frac{(7 - 4)((2 + 4) - (10 - 7))}{2} = 4.5$$

$$L(8) - L(7) = 8 - 4.5 = 3.5$$

decline by 2.5.⁴⁷ If consumption declined another 1 unit from 6 units to 5 units, then deadweight loss would decline by 1.5. And so on. Each unit of movement towards the optimum matters less than the previous. The implication for our purposes is that the antitrust authority can increase social welfare even if it is not quite sure where the optimum is, as long as it can determine that allowing a particular merger to go through (or allowing a particular anticompetitive practice to go unchallenged) will move consumption closer to the optimum.

There is still a real risk of overshooting. If consumption today is 5 units, the optimal level is 4 units, and consumption post-merger would be 2 units, then allowing the merger to go through would be welfare-decreasing. However, when a merger would have only a modest effect on price and quantity and there are significant negative externalities from consumption of the relevant bad, then the antitrust authority can say without too much worry that the merger will increase welfare in the immediate term (subject to the distributional concerns discussed in Section III.C).

Implementing a policy of Pigouvian concentration would, concededly, impose some tax on the resources of the antitrust authority. For one, it would add another factor to the already complex process of merger review. For another, it would require the antitrust authority to develop some knowledge outside of its core competency (e.g., the antitrust authority would now have to know that drinking leads to drunk driving and other negative externalities not fully internalized by the drinker, that fossil fuel consumption leads to climate change, and so on). Moreover, the antitrust authority would need at least a rough sense of negative externalities per unit of bad, so that it would know whether the price increases resulting from a reduction in competition come close to approximating the magnitude of the externality (at which point the risk of overshooting would become salient). Yet presumably the antitrust authority could leverage the expertise of other specialized agencies in making these sorts of determinations (e.g., the Justice Department Antitrust Division and the FTC can consult the Surgeon General with regard to drinking and the Environmental Protection Agency with regard to climate change). And remember what the result is if the antitrust authority decides not to challenge a merger based on a Pigouvian concentration rationale: the antitrust authority saves the resources that it otherwise would have expended in fighting the merger. If our sole concern is conservation of the antitrust authority's resources, then it is not clear whether that concern militates against a policy of Pigouvian concentration or in favor: there is a tradeoff between (a) the additional cost at the decisionmaking stage and (b) the reduced cost at the enforcement stage.

In short, concerns regarding institutional capacity do not give us a clear reason to prefer the neutrality position over a policy of Pigouvian concentration. Such a policy would impose an additional informational burden on antitrust authorities (as they would have to decide when not to enforce), but that burden must be weighed against the reality that nonenforcement is generally less resource intensive than enforcement. Absent any reason to think that one of these factors significantly outweighs the other, then the contest between the neutrality position and Pigouvian concentration must be decided on a different basis.

⁴⁷ $L(6) = \frac{(6-4)((2+4)-(10-6))}{2} = 2$

$$L(7) - L(6) = 4.5 - 2 = 2.5$$

B. Legal Constraints

A second argument against a policy of Pigouvian concentration—at least in the U.S. context—arises from the antitrust statutes. Section 1 of the Sherman Act prohibits “[e]very contract, combination . . . , or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations.”⁴⁸ Section 2 makes it a crime “to monopolize any part” of interstate or international trade or commerce.⁴⁹ Section 7 of the Clayton Act outlaws mergers and acquisitions where “the effect . . . may be substantially to lessen competition, or to tend to create a monopoly.”⁵⁰ None of these laws includes an exception for combinations and mergers that have anticompetitive but welfare-enhancing consequences.

Nor does judicial precedent help, at least at first blush. In *National Society of Professional Engineers v. United States*, for example, the Supreme Court held that the Sherman Act flatly prohibits restraints on competition, and that the “statutory policy” of the Sherman Act precludes a court from inquiring into whether competition is good or bad.⁵¹ Likewise, in *United States v. Philadelphia National Bank*, the Supreme Court considered the argument that a merger’s positive effects on the local economy should be a factor in its favor under the Clayton Act. Justice Brennan, joined by four of his colleagues, rejected the argument in unsparing terms:

We are clear . . . that a merger the effect of which “may be substantially to lessen competition” is not saved because, on some ultimate reckoning of social or economic debits and credits, it may be deemed beneficial. A value choice of such magnitude is beyond the ordinary limits of judicial competence, and in any event has been made for us already, by Congress when it enacted the amended § 7. Congress determined to preserve our traditionally competitive economy. It therefore proscribed anticompetitive mergers, the benign and the malignant alike, fully aware, we must assume, that some price might have to be paid.⁵²

Peter Hammer and Christopher Leslie have both suggested that courts ought to allow firms to present a “market failure” defense when an anticompetitive merger might increase overall social welfare.⁵³ But both recognize that a market failure defense would be difficult to justify under existing law. Leslie’s conclusion is succinct: “current doctrine precludes a market failure defense.”⁵⁴

⁴⁸ 15 U.S.C. § 1.

⁴⁹ 15 U.S.C. § 2.

⁵⁰ 15 U.S.C. § 18.

⁵¹ 435 U.S. 679, 695 (1978).

⁵² 374 U.S. 321, 371 (1963).

⁵³ See Hammer, *supra* note 26; Leslie, *supra* note 26.

⁵⁴ See Leslie, *supra* note 26, at 273; see also Hammer, *supra* note 26, at 913 (“[I]t would be difficult to reconcile a total welfare standard or intramarket second-best tradeoffs with a strict statutory orientation”). Hammer is more hopeful, though, that “[u]nder an organic methodological orientation, the evolution of the efficiency defense in lower courts can claim legitimacy.” *Id.*

Placing the onus on producers to come forward with a case for Pigouvian concentration also runs into an obvious practical problem: would any firm argue that “my products are so bad you should let me combine with my competitors so as to reduce overall quantity”? Perhaps A-B InBev would make the calculation that consumers already know about the social costs of alcohol consumption, and so whatever incremental damage to its image might follow from such an argument would be trivial in comparison to the profits from a Pigouvian monopoly (or perhaps that the damage to its image could be repaired through a particularly well crafted Super Bowl ad⁵⁵). It is difficult to know. No firm would make the argument today—at least not in a U.S. federal court—because cases such as *National Society of Professional Engineers* and *Philadelphia National Bank* render it a nonstarter.

Note, though, that the Sherman and Clayton Acts do not say—and the Supreme Court has not held—that the Justice Department and the Federal Trade Commission have a statutory obligation to contest every anticompetitive merger. Moreover, Executive Order 12866 (which remained in effect as of this writing, though it is still to be seen what the Trump presidency holds) instructs agencies to consider “all costs and benefits” and to “select those approaches that maximize net benefits . . . unless a statute requires another regulatory approach.”⁵⁶ The order applies with full force to the Justice Department; the FTC—as an independent agency—is exempt,⁵⁷ but it is under no obligation to enforce antitrust law when the effects of such enforcement are detrimental. There is no obvious reason why the Justice Department and FTC could not say something along the lines of: “We will focus our enforcement efforts on areas in which competition enhances welfare, and not on markets in which output already exceeds the socially optimal level.”

C. Distributional Concerns

A third argument against a policy of Pigouvian concentration is rooted in distributional considerations: Pigouvian concentration would result in a shift in wealth from consumers of bads to producers of bads. A now-standard view in the economic analysis of antitrust law is that antitrust should focus on growing the pie, and the task of dividing up the pie should be shunted aside to the tax-and-transfer system.⁵⁸ Yet there is an obvious problem with applying that argument here: the whole reason we are considering Pigouvian concentration is because we cannot use tax tools to accomplish our goals. And so distributional concerns come to the fore.

⁵⁵ But see Sam Adams, Budweiser’s Super Bowl Ad Tells a Compelling Immigrant Story. It’s Just Not Adolphus Busch’s, *Slate* (Feb. 2, 2017), http://www.slate.com/blogs/browbeat/2017/02/02/budweiser_s_super_bowl_ad_casts_adolphus_busch_as_an_immigrant_success_story.html; Cindy Boren, A Boycott Budweiser Movement Begins Over Super Bowl Immigration Ad, *Wash. Post*, Feb. 4, 2017, <https://www.washingtonpost.com/news/early-lead/wp/2017/02/04/a-boycott-budweiser-movement-begins-over-super-bowl-immigration-ad>;

⁵⁶ Exec. Order 12866, 58 Fed. Reg. 51,735 (1993).

⁵⁷ See Exec Order 12866, *supra* note 56, § 3(b).

⁵⁸ See, e.g., Richard A. Posner, *Antitrust Law* 2 (2d ed. 2001).

Return to the initial example in Part I, where the negative externality from beer consumption is 4 per unit. There, Pigouvian concentration appears to be welfare enhancing. Under perfect competition, consumer surplus is 32;⁵⁹ the negative externality from beer consumption is 4/unit x 8 units = 32; and so social surplus is zero. (Producer surplus is zero because price equals cost.) Under Pigouvian concentration, consumer surplus is 8;⁶⁰ the negative externality from beer consumption is 4/unit x 4 units = 16; the monopolist's profit is 16; and so social surplus is 8 – 16 + 16 = 8. By all measures, that appears to be an increase over social surplus under perfect competition.

But now suppose that society is divided into two socioeconomic classes, the Poors and the Riches. The Poors drink beer; the Riches consume cognac. The external costs of alcohol consumption (which for present purposes we will say come only in the form of drunk driving injuries) are split between the Poors and the Riches. Now also attach dollar signs to prices and surpluses, and assume that—consistent with the diminishing marginal utility of income—the marginal utility of \$1 to a Rich is half the marginal utility of \$1 to a Poor (0.5 utils vs. 1 util).

Under perfect competition, consumer surplus (\$32) accrues to the Poors, and the Poors and Riches split the external costs of alcohol consumption (\$16 each). Total welfare is 8 utils.⁶¹ Under Pigouvian concentration, consumer surplus (\$8) accrues to the Poors; the Poors and the Riches split the external costs of drunk driving (\$8 each). Meanwhile, monopoly profits accrue to the Riches (\$16). Total welfare is 4 utils.⁶² Once we factor the diminishing marginal utility of

$$\begin{aligned}
 {}^{59} \quad CS &= \frac{q(D(0) - D(q))}{2} \\
 &= \frac{(8)((10 - 0) - (10 - 8))}{2} = 32
 \end{aligned}$$

$$\begin{aligned}
 {}^{60} \quad CS &= \frac{q(D(0) - D(q))}{2} \\
 &= \frac{(4)((10 - 0) - (10 - 4))}{2} = 8
 \end{aligned}$$

⁶¹ Total welfare =

	consumer surplus to Poors (\$32)	x (1 util/\$1)	= 32 utils
—	external costs to Poors (\$16)	x (1 util/\$1)	= 16 utils
—	external costs to Riches (\$16)	x (0.5 utils/\$1)	= 8 utils
			= 8 utils

⁶² Total welfare =

	consumer surplus to Poors (\$8)	x (1 util/\$1)	= 8 utils
—	external costs to Poors (\$8)	x (1 util/\$1)	= 8 utils

income into the equation, the shift from perfect competition to Pigouvian concentration is welfare decreasing. In terms of dollars, consumer surplus plus producer surplus minus external cost is higher under Pigouvian concentration, but welfare is lower because the Riches have a lower marginal utility of income.

Ideally, we could transfer wealth from the Riches to the Poors so that Pigouvian concentration would be efficient in terms of dollars and in terms of utils. If, for example, we could transfer \$9 from the Riches to the Poors under Pigouvian concentration, then total welfare would be higher under Pigouvian concentration in dollar terms and in util terms.⁶³ (Each transferred dollar raises total welfare by 0.5 utils, which is the gap between marginal utility to Poors and marginal utility to Riches.) But what if the same constraints that stand in the way of Pigouvian taxation also impede efforts to reapportion the pie through taxes and transfers? Then, distributional considerations might change our calculus, and might militate against Pigouvian concentration where consumers of bads have higher marginal utilities of income than the residual claimants of bad-producing firms.

Note, though, that even if the distributional consequences of Pigouvian concentration are sticky (i.e., no ex post reallocation through taxes and transfers occurs), Pigouvian concentration still may be welfare enhancing across a range of circumstances. Taking into account distribution, welfare effects will depend on (a) relative marginal utilities of income, (b) relative consumption of bads across the income spectrum, and (c) the incidence of external costs. As for (b), the welfare effects of Pigouvian concentration in the market for port wine may look very different from the welfare effects of Pigouvian concentration in the market for malt liquor. As for (c), the welfare effects of Pigouvian concentration in the market for alcohol more generally may look very different depending on whether the rich travel by roadway (exposing themselves to the risk posed by drunk drivers) or whether, São Paulo-style, they commute by helicopter.⁶⁴ The distributional consequences of Pigouvian concentration will further depend on whether the

—	external costs to Riches (\$8)	x (0.5 utils/\$1)	= 4 utils
+	monopoly profits to Riches (\$16)	x (0.5 utils/\$1)	= 8 utils

			= 4 utils

⁶³ Total welfare =

—	consumer surplus to Poors (\$8)	x (1 util/\$1)	= 8 utils
—	external costs to Poors (\$8)	x (1 util/\$1)	= 8 utils
—	external costs to Riches (\$8)	x (0.5 utils/\$1)	= 4 utils
+	monopoly profits to Riches (\$16)	x (0.5 utils/\$1)	= 8 utils
+	transfer from Riches to Poors (\$9)	x (0.5 utils/\$1)	= 4.5 utils

			= 8.5 utils

⁶⁴ See Blake Schmidt, Uber Lets You Hail a Helicopter in Brazil for \$63, Bloomberg (June 21, 2016), <https://www.bloomberg.com/news/articles/2016-06-21/uber-lets-you-hail-a-helicopter-in-brazil-for-63>.

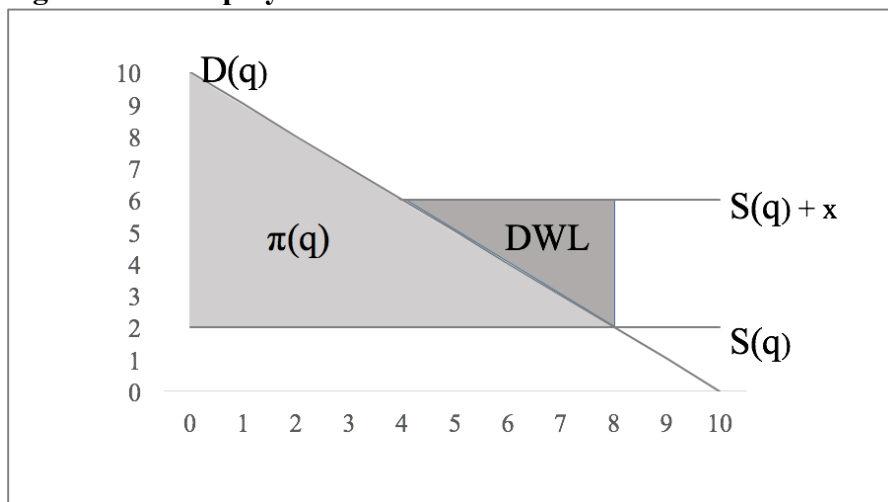
relevant bad generates negative externalities or negative “internalities” (or both).⁶⁵ Arguably, higher prices for bads such as alcohol and tobacco make consumers of those products better off. If so, then the distributional concerns limned above are less salient.

Finally, it may sometimes be the case that even though Pigouvian taxation is politically infeasible, redistribution of monopoly profits through the tax-and-transfer system is not. Producers and consumers of externality-generating bads have reason to oppose the imposition of Pigouvian taxes on those bads; consumers have less of a reason, however, to oppose an excess profits tax on bads producers. A tax imposed only on supranormal profits will not, at least in theory, affect the monopolist’s choice of quantity and price, and so generally will not be passed onto consumers like a Pigouvian tax might be. If an excess profits tax is possible, then the distributional analysis of Pigouvian concentration looks much the same as the distributional analysis of Pigouvian taxation.

D. Price Discrimination

A related concern is that producers of bads might be able to price-discriminate successfully such that Pigouvian concentration is purely redistributive. That is, producers of bads might offer different prices to different consumers such that each consumer is offered a price equal to her willingness to pay. Under those conditions, the quantity of bads (and the attendant deadweight loss) is the same as under perfect competition, with the one change being that the entire area between the demand curve and the cost curve represents producer profits (as depicted in Figure 3). While deadweight loss with a monopoly and perfect price discrimination is no greater than under perfect competition, overall welfare is lower if the marginal utility of income is lower for the monopolist than for consumers (assuming, as above, that an excess profits tax or other ex post transfer mechanism is infeasible).

Figure 3. Monopoly Plus Perfect Price Discrimination



⁶⁵ See R. Herrnstein et al., *Utility Maximization and Melioration: Internalities in Individual Choice*, 6 *J. Behav. Decision Making* 149 (1993).

How likely is it that producers will be able to price-discriminate perfectly? Certainly in the beer market, we see quite a bit of price discrimination. Beer connoisseurs will tell you that they can easily tell the difference between a Goose Island wheat ale and a Shock Top wheat ale (both of which are made by A-B InBev), but from A-B InBev's perspective, Goose Island and Shock Top might exist as separate brands so that A-B InBev can easily tell the difference between consumers willing to pay \$14 for a 12-pack (Goose Island) and consumers willing to pay \$11 for a 12-pack (Shock Top).⁶⁶

The better able a producer is to price-discriminate, the weaker the case for Pigouvian concentration in the relevant market. It is doubtful that we see perfect price discrimination in the beer market, and so concentration is likely to have price effects and quantity effects as opposed to only price effects. But as discussed in Section IV.B, there may be instances in which producers of bads can price-discriminate almost perfectly, in which event the case for Pigouvian concentration becomes considerably weaker.

E. The Generation of New (and Worse) Bads

A further argument for full-scale enforcement of antitrust law in markets for bads is that relaxed enforcement might incentivize innovation and entry. Entrepreneurs may dream up and develop new bads with the hope that if they succeed, they will be able to reap monopoly profits. And producers of existing bads may seek to make their bads even worse, on the theory that antitrust authorities will allow greater concentration commensurate with a greater negative externality.

Relaxed enforcement of antitrust law arguably functions as a supplement to the innovation incentive provided by patent law. A firm that develops a new bad might expect that it will be able to reap monopoly profits beyond the 20 years provided by patent law. Note, though, that relaxed enforcement of antitrust law will have multiple effects on incentives for entry and innovation, not all of which run in the same direction. Potential entrants might fear that weaker enforcement of antitrust law leaves them vulnerable to predatory practices by industry incumbents, and in this respect a policy of Pigouvian concentration may deter entry into the market for bads. As for existing firms, market concentration may have conflicting effects on innovation. Philippe Aghion and coauthors suggest that innovation incentives depend upon the difference between post-innovation and pre-innovation rents of incumbent firms: incentives are strongest when post-innovation rents are high relative to pre-innovation rents. On the one hand, relaxed enforcement of antitrust law may increase pre-innovation rents for incumbent firms, thereby reducing innovation. On the other hand, relaxed enforcement and the market concentration that results may allow innovative firms to capture an even larger share of post-innovation rents, thereby increasing innovation. (Aghion et al. characterize this as the "Schumpeterian effect," a reference to the early-/mid-20th century economist Joseph Schumpeter, who famously argued that market concentration would speed the pace of

⁶⁶ At least, that is how the two brands were priced at a Walmart on the north side of Chicago on a recent Sunday afternoon. A producer or retailer might price-discriminate further by setting different prices at different locations, using area income as a proxy for willingness to pay.

technological process.)⁶⁷ An impressive literature in industrial organizations investigating the relationship between market concentration and innovation yields no definitive conclusion.⁶⁸

One possible response to the concern that relaxed enforcement of antitrust law will encourage the development of new bads is to adopt a policy of Pigouvian concentration limited to existing bads. But the line between “old” bads and “new” bads is blurry. Is low carbohydrate beer a new bad or a new iteration on an existing bad?⁶⁹ (Is low carb beer even a bad, or does consumption of low carbohydrate rather than full bodied beer result in weight loss and thus welfare gain?) One can ask a similar set of questions regarding electronic cigarettes⁷⁰ or Diet Coke⁷¹ or hydraulic fracturing.⁷² Ultimately, we do not know the sign, much less the magnitude, of the effect that Pigouvian concentration might have on the pace of innovation by producers of bads, nor do we know whether innovation by bads producers is a net positive or net negative from a social welfare perspective. Unless there is some reason to think that the consequences weigh in one direction or the other, the innovation argument probably will not be decisive in the debate over Pigouvian concentration.

F. Pigouvian Concentration and Productive Efficiency

A related concern is that Pigouvian concentration might increase productive efficiency in bads markets. By this, I mean that relaxed enforcement of antitrust law might allow producers of bads to achieve greater scale economies, thus reducing marginal cost. If so, then the reduction in cost could offset—partially or wholly—the quantity effects of concentration.

Return again to the simple case in Part I, but now imagine—quite unrealistically—that the monopoly is so productively efficient that it can produce beer at zero cost. If the demand

⁶⁷ Philippe Aghion et al., *Competition and Innovation: An Inverted-U Relationship*, 120 *Q. J. Econ.* 701 (2005); see also Tom Nichols, *Why Schumpeter Was Right: Innovation, Market Power, and Creative Destruction in 1920s America*, 63 *J. Econ. Hist.* 1023 (2003).

⁶⁸ Compare Nicholas Bloom, Mirko Draca & John Van Reenen, *Trade Induced Technical Change? The Impact of Chinese Imports on Innovation, IT and Productivity*, 83 *Rev. Econ. Studies* 87 (2015) (finding positive relationship between competition and innovation), with Aamir Rafique Hashmi, *Competition and Innovation: The Inverted-U Relationship Revisited*, 95 *Rev. Econ. Studies* 1653 (2013) (mildly negative relationship between competition and innovation).

⁶⁹ See Karen Borsari, *15 Better-for-Your-Body Beers*, *Daily Burn* (Aug. 27, 2013), <http://dailyburn.com/life/health/healthy-best-beers> (listing 15 beers under 110 calories per 12-ounce serving, led by Bud Select 55, with—as the name implies—55 calories per serving).

⁷⁰ For an overview of arguments on each side of the e-cigarette health debate, see Chitra Dinakar and George T. O’Connor, *The Health Effects of Electronic Cigarettes*, 375 *N. Engl. J. Med.* 1372 (2016).

⁷¹ See, e.g., Susan E. Swithers, *Artificial Sweeteners Produce the Counterintuitive Effect of Inducing Metabolic Derangements*, 24 *Trends in Endocrinology & Metabolism* 431 (2013).

⁷² See, e.g., Lawrence M. Cathles, et al., *A Commentary on “The Greenhouse Gas Footprint of Natural Gas in Shale Formations”* by R.W. Howarth, R. Santoro, and Anthony Ingraffea, 113 *Climatic Change* 525 (2012).

function remains the same as before ($D(q) = 10 - q$), then the monopolist maximizes profits by producing 5 units of beer at a price of 5 per unit.⁷³ Consumer surplus is now 12.5;⁷⁴ the negative externality from beer consumption is $4/\text{unit} \times 5 \text{ units} = 20$; and the monopolist makes a profit of $5 \text{ per unit} \times 5 \text{ units} = 25$. Social surplus is the sum of consumer surplus and monopoly profit minus the negative externality: $12.5 + 25 - 20 = 17.5$. Note that with these productive efficiency gains, social surplus is even greater than with perfect competition and a Pigouvian tax (8), even though the monopolist's q_m is greater than the optimal q^* ($q_m = 5 > q^* = 4$).

If this result seems surprising at first blush, consider that costs of producing bads are real social costs, just as the negative externalities from consumption of bads are real social costs. Productive efficiency gains in the bads sector reduce the costs of producing bads even as they increase the quantity and thus the negative externalities generated by bads. As a general matter, we should want bads to be as cheap as possible to produce and then for the government to control consumption of bads through price instruments (or, which are often equivalent, quantity controls). Intervening to raise the cost of producing bads is akin to imposing a Pigouvian tax and flushing the revenue down the toilet.

For this reason, the concern that concentration in markets for bads may enhance productive efficiency turns out to be a weak argument against Pigouvian concentration in most circumstances.⁷⁵ Note, moreover, that productive efficiency is already a factor considered by the

⁷³ The monopolist's profit function is now $\pi(q_m) = q_m(10 - q_m)$, or $10q_m - q_m^2$. The monopolist maximizes profits when:

$$\begin{aligned} \pi'(q_m) &= 0 \\ 10 - 2q_m &= 0 \\ q_m &= 5 \end{aligned}$$

⁷⁴ $CS = \frac{q(D(0) - D(q))}{2}$

$$= \frac{(5)((10 - 0) - (10 - 5))}{2} = 12.5$$

⁷⁵ When James Buchanan defended organized crime on the ground that cartelization would reduce quantity, Jürgen Backhaus raised a productive efficiency objection in response. See Jürgen Backhaus, *Defending Organized Crime? A Note*, 8 *J. Legal Stud.* 623, 625 (1979) (responding to Buchanan, *supra* note 25) (“An argument entirely neglected by Buchanan concerns the possibility of economies of scale in organizing crime. For his analysis to be correct it has to be shown that there are no such economies accruing to the illicit entrepreneur.”). The analysis in this essay would suggest that Backhaus states the case too strongly: the costs of committing crimes are real social costs just as the negative externalities of crimes are real social costs. If organized crime raises productive efficiency (thereby reducing the cost of committing crime) and increases quantity (thereby increasing the negative externalities of crime), then one would have to compare the magnitudes of these two effects before reaching an overall conclusion regarding the welfare consequences of organized crime.

Justice Department and the FTC in their horizontal merger analysis (though productive efficiency gains are given less weight than allocative efficiency losses).⁷⁶ That is, when a merger in a market for bads would enhance productive efficiency, antitrust authorities already take that into account as a reason to favor the merger. The argument here is that when a merger in a market for bads would lead to greater productive efficiency but lower output, authorities should generally consider both of those to be factors weighing in favor of the merger.

G. The (Ir)reversibility of Pigouvian Concentration

Even when concentration in a market for bads would be welfare enhancing in the short term, one might worry about such concentration outlasting its utility. What if there are new technological developments that reduce or even eliminate the negative externalities associated with a particular bad? Imagine, for instance, that self-driving cars make the problem of drunk driving obsolete, and that the socially optimal quantity of beer consumption increases accordingly. Would we then regret our prior decision to allow a market-concentrating merger between two giant beer producers?⁷⁷

A possible response is to say that of all the social problems that should worry us, the problem that we will not have enough cheap beer to drink in our self-driving cars of the future should be last on the list. And if we have a preference for progressive redistribution across generations as well as across individuals within a generation, then a policy of Pigouvian concentration that increases welfare in the present period at the expense of welfare in a technologically advanced future period might seem attractive. Moreover, concentration in a market for bads will be durable only if there are permanent barriers to entry. Otherwise, the effects of concentration will dissipate over time as new firms enter the relevant market and bring price and quantity back to competitive levels.

The concern about future developments that reduce the negative externalities of bads does serve to underscore the general point that Pigouvian taxation is preferable to Pigouvian concentration. Pigouvian taxes are easier to adjust as social and technological conditions change. A legitimate worry with respect to Pigouvian concentration is that it might negatively affect the prospects for Pigouvian taxation in future periods. The next section turns to that concern.

H. The Political Economy of Pigouvian Concentration

Perhaps the most worrying effect of Pigouvian concentration is that it might make the first best of Pigouvian taxation more difficult to attain. Concentration in markets for bads could give rise to powerful mega-firms that fiercely fight any proposal for a Pigouvian tax in the future. The mega-firms that emerge from a policy of Pigouvian concentration also might muster the political power to resist regulatory interventions short of Pigouvian taxation (e.g., calorie labeling

⁷⁶ U.S. Dep't of Justice & Fed. Trade Comm'n Horizontal Merger Guidelines § 4, at 29-31 (rev'd Aug. 19, 2010). On the asymmetric treatment of productive efficiency and allocative efficiency, see Daniel A. Crane, Rethinking Merger Efficiencies, 110 Mich. L. Rev. 347 (2011).

⁷⁷ Or, with respect to tobacco, imagine a cure for lung cancer. Or, with respect to fossil fuels, a successful carbon capture mechanism.

requirements on alcoholic beverages⁷⁸). These political consequences potentially result in real social costs that any comprehensive welfare analysis must take into account.

Yet the political ramifications of Pigouvian concentration are more complicated than the above paragraph let on. First, it is not clear whether Pigouvian concentration would increase or decrease the political power that producers of the relevant bad possess. Classic public choice analysis would suggest that concentration works to an interest group's advantage, but size works to an interest group's advantage too.⁷⁹ A monopolized market is a smaller market, with fewer factories in fewer congressional districts, fewer employees and fewer consumers. Second, a policy of Pigouvian concentration might affect the political behavior of actors other than the merging firms.

Suppose that the relevant interest groups are (1) the merging mega-firms, (2) smaller-scale producers of the bad (e.g., craft brewers), (3) consumers of the bad (beer drinkers), (4) future victims and their advocates (e.g., Mothers Against Drunk Driving), and (5) teetotaling taxpayers. In the first instance, the merging mega-firms, craft brewers, and beer drinkers all oppose a Pigouvian tax on beer, while MADD and the teetotaling taxpayers support it. Suppose, moreover, that the Justice Department and FTC announce or intimate a policy along the following lines: we will relax enforcement of competition laws in the beer market unless and until a Pigouvian tax on beer is enacted. That announcement affects each group's incentives:

- (1) The merging mega-firms have even more reason to oppose the Pigouvian tax, because if the Pigouvian tax fails, then Pigouvian concentration will proceed in its place and the merged mega-mega-firm will reap monopoly profits.
- (2a) Craft brewers may become proponents of the Pigouvian tax because they fear the alternative of Pigouvian concentration even more: i.e., they fear that the merged mega-mega-firm will enjoy scale economies or employ predatory practices that drive craft brewers out of business.
- (2b) Alternatively, craft brewers might conclude that they actually stand to benefit from Pigouvian concentration, since higher beer prices will pad profits for the merged mega-mega-firm and independent producers alike. (Some research finds that rivals' stock prices rise when other firms in their industry merge.⁸⁰) For this reason, an

⁷⁸ See Fiona Sim, *Alcoholic Drinks Contribute to Obesity and Should Come with Mandatory Calorie Counts*, 350 *BMJ* 2047 (2015). To be sure, such labeling requirements might do little or no good anyway. See Omri Ben-Shahar & Carl E. Schneider, *More Than You Wanted to Know: The Failure of Mandated Disclosure* (2014); Omri Ben-Shahar, *The Surprising Failure of Food Labeling*, *Forbes.com* (Apr. 18, 2016), <http://www.forbes.com/sites/omribenshahar/2016/04/18/the-surprising-failure-of-food-labeling>.

⁷⁹ On the countervailing effects of concentration and group size, see Daniel A. Farber & Philip P. Frickey, *Law and Public Choice: A Critical Introduction* 24-25 & n.52 (1991).

⁸⁰ For an overview and critical review of the literature on rival firm effects of mergers, see Laurence Schumann, *Patterns of Abnormal Returns and the Competitive Effects of Horizontal Mergers*, 8 *Rev. Industrial Org.* 679 (1993).

- announced policy of Pigouvian concentration might motivate craft brewers to resist Pigouvian taxation with even greater vigor.
- (3) Consumers have less reason to oppose a Pigouvian tax because they stand to pay higher prices either way. And since they stand to gain from Pigouvian tax revenues as taxpayers and beneficiaries of government services, they may become mild proponents of Pigouvian taxation.
 - (4a) Interest groups such as MADD that represent future (and past) victims of negative externalities may become even more supportive of Pigouvian taxation because they harbor animosity toward producers of bads and do not like the idea of producers reaping monopoly profits.
 - (4b) Alternatively, interest groups such as MADD may become less supportive of Pigouvian taxation—or may invest fewer resources in supporting such taxes—since they realize that Pigouvian concentration will accomplish a similar quantity reduction.
 - (5) Teetotalers continue to support a Pigouvian tax because they stand to benefit from the revenues but will not bear the costs.

An announced policy of Pigouvian concentration dampens the prospects for Pigouvian taxation if effects (1), (2b), and (4b) are paramount. An announced policy of Pigouvian concentration makes Pigouvian taxation more likely if effects (2a), (3), and (4a) prove strongest. In the abstract, it is difficult to say which scenario is more likely.

An analogy—potentially puerile—to the game of Scrabble might have some purchase here. In Scrabble, a player is allowed to exchange any of her tiles for an equal number of titles chosen at random. The player has no way to know whether the new tiles will be any better than the ones she relinquishes. Whether the exchange makes sense depends on what she already has in her hand: the worse her tiles at present, the more likely that picking again at random will leave her better off.

Perhaps the same can be said of an agency that acknowledges Pigouvian taxation as a first best and is deciding whether to adopt a policy of Pigouvian concentration with respect to a particular market. If the prospects for Pigouvian taxation look grim at present, then the notion of trading tiles—i.e., initiating the reconfiguration of preferences that Pigouvian concentration might bring about—becomes more attractive. If proposals for Pigouvian taxation are gathering support already, then reconfiguring preferences would seem less wise. In other words, adoption of a Pigouvian concentration policy would change the political climate with respect to Pigouvian taxation; whether such a change would be for better or for worse depends to a large extent on the starting point.

* * *

Thus far, this essay has argued that a policy of Pigouvian concentration (i.e., relaxed enforcement of antitrust law in markets for bads) can be a second-best approach when a

Pigouvian tax is unavailable. I have also considered the principal counterarguments to the Pigouvian concentration proposal: that it would exceed the institutional competence and/or legal authority of antitrust enforcement agencies; that it would lead to undesirable distributional consequences; that it might be ineffective because of perfect or near-perfect price discrimination; that it might motivate entrepreneurs to dream up new types of bads, or might enhance productive efficiency in markets for bads; that it might be irreversible; and that it might make the first best of Pigouvian taxation even less attainable. I have explained why none of these arguments is overwhelmingly persuasive (though not all can be dismissed out of hand).

So where does that leave us? Should antitrust authorities adopt a policy of Pigouvian concentration with respect to, say, alcohol, tobacco, and fossil fuels? The answer, I suggest, is (as is often the case) “it depends.” But the analysis above helps us zero in on relevant factors.

Consider first the risk of “overshooting.” This risk is least when current consumption of the relevant bad is clearly much higher than the optimal level, and when the proposed merger would have relatively modest effects on prices. Next, consider the distributional consequences: these are least worrying when the relevant bad leads to negative externalities as well as negative externalities, and when the consumers of the relevant bad have relatively high incomes and/or the bearers of the negative externality are disproportionately drawn from the lower-income groups. Next, consider the feasibility of price discrimination: the more easily the producer can adjust price to the consumer’s willingness to pay, then the less that concentration will reduce the quantity of bads (and thus the negative externalities that flow from bads). Next, consider the ways in which Pigouvian concentration might affect incentives for innovation. The longer the relevant bad has been around, the less worrisome this might be (subject, again, to the constraint that it is not immediately obvious what distinguishes new bads from old bads in new bottles). And finally, consider the effects of Pigouvian concentration on the prospects for Pigouvian taxation in the future. Pigouvian concentration becomes more attractive when the political prospects for Pigouvian taxation are dim.

On this view, the beer market would seem to be an opportune setting for a policy of Pigouvian concentration. First, the socially optimal tax rate on beer and other alcohol almost certainly exceeds current rates by a wide margin.⁸¹ Beer consumption leads to a host of negative health externalities for drinkers, somewhat mitigating distributional concerns. Price discrimination is possible in the market but perfect price discrimination almost certainly is not. Beer is an “old bad” (it has been around for millennia), and so insofar as the antitrust authority tries to draw an old bad/new bad distinction, beer would presumably fall on the “old” side of the divide. And federal excise taxes on beer have been constant in nominal terms (declining in real terms) since

⁸¹ Holley Shafer estimates that the average state would have to increase the tax on alcohol by \$0.84 per drink in order for alcohol taxes to equal external costs absorbed by government. See Shafer, *supra* note 13. Meanwhile, Donald Kenkel estimates that the optimal alcohol tax is 1.06 times the net-of-tax price, more than an order of magnitude above current levels. See Donald S. Kenkel, *New Estimates of the Optimal Tax on Alcohol*, 34 *Econ. Inq.* 296, 314 (1996); see also Tax Policy Ctr., *State Alcohol Excise Tax Rates 2016* (Jan. 5, 2017), <http://www.taxpolicycenter.org/statistics/alcohol-rates-2000-2010-2013-2016>.

1991, while average state taxes have declined significantly in real terms since the 1960s.⁸² If this is correct, then the merger between A-B InBev and SABMiller marked a missed opportunity for antitrust agencies to put a policy of Pigouvian concentration in place.

The case for Pigouvian concentration in the cigarette market is shakier. This is principally due to the fact that cigarette taxes have increased at a rapid rate over the past two decades. In 2000, the U.S. Department of Health and Human Services declared a goal of raising combined federal and state cigarette taxes to \$2 per pack by 2010;⁸³ by 2009, the average combined rate reached \$2.21 per pack.⁸⁴ Rates vary widely across states (and across municipalities within states). At the low end, the combined federal and state rate in Missouri was \$1.38 as of 2014 (\$1.01 federal plus \$0.37 state); at the high end, the combined rate in Chicago (including county and municipal taxes) was \$7.17.⁸⁵ Jonathan Gruber and Botond Koszegi estimate that the optimal tax on cigarettes in the United States ranges from \$1 to \$10 depending on consumers' time inconsistency.⁸⁶ Current rates already fall within that (wide) range.

The key point here is that the desirability of Pigouvian concentration will vary across markets for bads. It will depend both upon the Pigouvian taxes already in place and on the politics of Pigouvian taxation, as well as on the distributional and innovation-inducing considerations analyzed above. The beer market presents a strong case for Pigouvian concentration but perhaps not the only such strong case. When the next significant combination in a market for bads is proposed, antitrust agencies should think carefully and critically before requiring partial divestiture as a condition for merger approval.

IV. Pigouvian Concentration Beyond Antitrust

One might ask at this point: If Pigouvian concentration is desirable as a second best and the first best is off the table, why wait for a new merger to be proposed? Ought not the government affirmatively intervene in markets for bads so as to promote concentration? (Should we encourage Coca-Cola and Pepsi to merge rather than waiting until they do?⁸⁷) As noted above, Pigouvian concentration in antitrust involves a period of governmental inaction rather than action and so potentially conserves administrative resources; this same argument would not apply if the

⁸² See Ctr. for Science in the Public Interest, *Increasing Alcohol Taxes To Fund Programs To Prevent and Treat Youth-Related Alcohol Problems* (2001), <https://safesupportivelearning.ed.gov/sites/default/files/hec/product/strategizer37.pdf>.

⁸³ 2 U.S. Dep't of Health and Human Servs., *Healthy People 2010: Understanding and Improving Health* 27-34 (2d ed. 2000).

⁸⁴ Ctrs. for Disease Control & Prevention, *Federal and State Cigarette Excise Taxes --- United States, 1995—2009*, 58 *Morbidity & Mortality Weekly Report* 524 (May 22, 2009), <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5819a2.htm>.

⁸⁵ See Liz Emanuel & Richard Borean, *State Cigarette Tax Rates in 2014*, Tax Found. (July 2, 2014), <https://taxfoundation.org/state-cigarette-tax-rates-2014>.

⁸⁶ Jonathan Gruber & Botond Koszegi, *Tax Incidence When Individuals Are Time-Inconsistent: The Case of Cigarette Excise Taxes*, 88 *J. Pub. Econ.* 1959, 1967 n.9 (2004).

⁸⁷ This assumes that the optimal price for sugary soft drinks is higher than the competitive price and that a first-best soda tax is politically infeasible.

government's approach were more avowedly interventionist. The analysis above may nonetheless shed some light on whether there are circumstances in which government-facilitated concentration or cartelization could have positive welfare effects.

A. Government as Pigouvian Monopolist

One possibility is that the government itself could take on the role of monopolist in markets for bads. We already see this to some extent in the alcohol market in a number of U.S. states: 17 states maintain monopolies over spirits sales at the wholesale level, and in 11 of those 17, the state maintains a retail-level spirits monopoly as well. Two of the 17 states also control their wholesale wine markets, and three more of the 17 maintain monopolies in both the wholesale and retail wine markets.⁸⁸ Finland, Iceland, Norway, and Sweden maintain state alcohol monopolies at the retail level as well.⁸⁹ State-run gambling monopolies are also widespread.⁹⁰ (Whether gambling qualifies as a bad is a question far beyond the scope of this essay.)

When the quantity set by the profit-maximizing monopolist matches the socially optimal quantity and when the state-run monopoly maximizes profits, then the state-run monopoly generates results essentially equivalent to an optimal Pigouvian tax. (Recall that in the basic model in Part I, monopoly profits are equal to Pigouvian tax revenues.) When the quantity set by the profit-maximizing monopolist is greater or less than the socially optimal quantity, the government must decide whether it wants to maximize revenues or to maximize social welfare. A potential concern regarding government monopolies is that governments will become addicted to the revenue stream and so will choose the profit-maximizing quantity rather than the socially optimal quantity. But note that this same concern applies to taxes: the revenue-maximizing tax on a bad may be more or less than the negative externality generated by the bad, and so a government addicted to revenues from taxes on bads may set rates higher or lower than a Pigouvian prescription would suggest.

One might at this point ask: Are there circumstances in which the government might be able to monopolize a market for a bad but would not be able to impose a Pigouvian tax on a free market for the same bad? The answer may be "yes" for reasons of history and path dependency in alcohol control states. However, a proposal for a new state-run monopoly on an existing bad would likely encounter opposition from the same sources as a Pigouvian tax (i.e., producers and consumers). It is perhaps instructive that the number and scope of state-run alcohol monopolies

⁸⁸ See Sarah Mart & Michele Simon, Marin Inst., Control State Politics: Big Alcohol's Attempt To Dismantle Regulation State by State 5 (Sept. 2010), <http://www.eatdrinkpolitics.com/wp-content/uploads/ControlStateReportSimon.pdf>. Note that the Marin Institute report preceded Washington State's decision to dismantle its control system. See Amy Martinez, The Day Liquor Went Private and Prices Stumped the Public, Seattle Times, June 1, 2012, <http://www.seattletimes.com/seattle-news/the-day-liquor-went-private-and-prices-stumped-the-public>.

⁸⁹ J. Cisneros Örnberg & H. Ólafsdóttir: How To Sell alcohol? Nordic Alcohol Monopolies in a Changing Epoch, 25 Nordic Stud. on Alcohol & Drugs 129 (2008).

⁹⁰ See, e.g., A. Barton Hinkle, States Play Gambling Monopoly, Reason (Nov. 23, 2015), <http://reason.com/archives/2015/11/23/states-play-gambling-monopoly>.

in the United States have been diminishing rather than expanding in recent decades.⁹¹ More generally, government monopoly is a second-best solution given the unavailability of a Pigouvian tax only if the government monopoly is politically feasible; if the Pigouvian tax is infeasible, it is not clear why the government monopoly would be.

B. Patent as Pigouvian Monopoly

Another way that governments can pursue policies of Pigouvian concentration is by granting patents with respect to bads. Christopher Cotropia and James Gibson have suggested that government-granted patent monopolies can serve as effective mechanisms for regulating the supply of bads.⁹² The analysis here sheds some light on the desirability of that proposal.

With respect to institutional capacity, a key difference between antitrust law and patent law is that competition is the default rule in the former while monopoly is the default in the latter. That is, a policy of Pigouvian concentration in antitrust involves distinguishing between goods and bads and then not applying antitrust law with respect to bads. Cotropia and Gibson's argument is that patent authorities should draw no distinction between goods and bads, and should grant patent monopolies with respect to both. In doctrinal terms, Cotropia and Gibson are arguing against a "moral utility" requirement in patent law: novel, nonobvious inventions that meet the other generally applicable criteria for patentability should not be excluded from protection on the grounds that they are bads rather than goods.⁹³

A natural objection to Cotropia and Gibson's argument (one that the authors anticipate⁹⁴) is that patents serve to incentivize innovation even as government-granted monopolies restrict access to patented goods. The idea behind limited-life patents is that the dynamic efficiency benefits (i.e., increased innovation) more than outweigh the static efficiency costs (the deadweight loss of monopoly). Either this idea is right, in which case patents for bads would do more to incentivize innovation than to restrict access to patented bads, or the idea is wrong, in which case patents for bads might be a good idea but patents for goods are a bad one.

Cotropia and Gibson's response is that in some but not all markets, non-patent mechanisms such as trade secret protection already incentivize innovation, and that if these markets are markets for bads, then patent monopolies can be welfare enhancing. They cite the example of tax planning patents: even without patent protection, they argue, "[h]igh consumer demand and the availability of trade secret protection combined (and continue to combine) to incentivize the creation of new tax planning methods." They anticipate that the availability of tax planning patents will cause planners to shift from trade secret protection to patent protection, which in turn will raise their own costs since now "tax planners need to engage in preclearance searching and

⁹¹ See, e.g., A C Wagenaar & H D Holder, Changes in Alcohol Consumption Resulting from the Elimination of Retail Wine Monopolies: Results from Five U.S. States, 56 *J. Stud. on Alcohol & Drugs* 566 (1995).

⁹² See Cotropia & Gibson, *supra* note 13.

⁹³ See *id.* at 951-52 & nn. 127-128.

⁹⁴ See *id.* at 930-38.

analysis” to avoid infringement liability. They also argue that disclosure of tax planning methods on patent applications will alert the IRS to new avoidance strategies.⁹⁵

A potential problem here is that if trade secret protection already allows tax planners to capture monopoly rents from their inventions, then planners will have little reason to opt into the patent system (especially if that requires public disclosure of avoidance strategies). But if patents provide rewards for innovators over and above the rewards available with trade secret protection, then presumably more (and smarter) people will enter the tax planning industry and more tax avoidance methods will be generated. The supply of tax planners is not inelastic; more 2Ls and 3Ls might choose to go into tax law rather than litigation or M&A if compensation for tax lawyers were consistently higher than in other fields. And while it is still possible that the quantity-restricting consequences of tax planning patents might offset the inducement to innovation, there is no clear reason to believe *ex ante* that one of these effects will outweigh the other.

On some of the other dimensions identified above, the case for Pigouvian concentration with respect to tax planning seems stronger. If the optimal amount of tax avoidance is zero, the risk of “overshooting” is zero as well. (Query, though, whether it is possible to distinguish “bad” tax planning methods such as the BOSS and Son of BOSS tax shelters⁹⁶ from “good” tax planning methods such as Low-Income Housing Tax Credit syndication.⁹⁷) The distributional concerns present with respect to beer and cigarettes are absent in the tax planning context: consumers of tax planning methods are, we might expect, disproportionately drawn from the upper end of the income spectrum, perhaps even above the lawyers who stand to reap monopoly rents if they can patent their avoidance methods. The negative externalities of tax avoidance, meanwhile, are borne by all other taxpayers and recipients of government services, since avoidance by any one taxpayer tightens the government’s budget constraint. Irreversibility concerns are less salient with respect to patent monopolies because patents expire at the end of twenty years. As for the risk that Pigouvian concentration might dampen the future prospects for a Pigouvian tax, it is hard to see how a Pigouvian tax on tax avoidance would ever be plausible, given that the tax could—presumably—be avoided. (We could, perhaps, imagine a Pigouvian tax on tax lawyers—a possibility addressed at greater length in Section IV.D.)

Weighing in the other direction is the fact that tax planners might be unusually capable of price-discriminating. Consider the following scenario: A tax lawyer develops a new tax shelter and obtains a patent. She then publicizes her invention (another advantage of patent protection over trade secret protection is that advertising a patent is much easier than advertising a trade secret), and she makes the following offer to potential clients: I will license my tax shelter to you as long

⁹⁵ See *id.* at 944-50. Cotropia and Gibson also mention the possibility that “nonprofit organizations whose goal is to bring about tax reform and expose tax abuses” might apply for patents on tax planning methods so that they can “engage in private policing—by acquiring the patent, refusing to license it to anyone, and actively enforcing it against infringers.” *Id.* at 946.

⁹⁶ See Joseph Bankman, *The Tax Shelter Problem*, 57 *Nat’l Tax J.* 925, 926-27 (2004).

⁹⁷ See Michael Novogradac, *Investing in Low-Income Housing Tax Credits, Community Developments*, Spring 2006, <https://www.occ.gov/static/community-affairs/community-developments-investments/spring06/investinginlowincome.htm>.

as I get to keep 50% (or 99%) of whatever the shelter saves you in taxes. By requiring the clients to disclose their tax positions to the lawyer, the lawyer can accurately assess willingness to pay and adjust price accordingly. In this scenario, patent protection for bads likely increases the quantity of bads because (a) perfect price discrimination ensures that every consumer who would have purchased the bad under perfect competition still does so, and (b) the enhanced profitability of production incentivizes innovators to generate even more new bads (here, to develop new tax shelters).

To be sure, the exact scenario described in the previous paragraph may be precluded by legal ethics rules. But the observation that tax lawyers can engage in effective price discrimination holds more generally. Still, defenders of tax planning patents (and other patents on similar bads) arguably satisfy their justificatory burden simply by showing that the case against patents on bads is as uneasy as the case in favor.⁹⁸ Recall that Cotropia and Gibson are arguing that we ought not deviate from the default rule of patentability when it comes to bads such as tax planning methods. At the very least, they have offered a reason why patents on bads might not be so bad after all. And yet as the above discussion demonstrates, the desirability of Pigouvian concentration depends on context, and the potential for price discrimination in the tax planning context limits the attractiveness of Pigouvian concentration with respect to that market.

C. Trademark as Pigouvian Monopoly

The antitrust analysis in Part III might also lead us to new insights regarding trademark law. Consider the pending Supreme Court case of *Lee v. Tam*,⁹⁹ which presents the question of whether the disparagement provision of the Lanham Act violates the First Amendment. The disparagement provision denies registration to marks “which may disparage or falsely suggest a connection with persons, living or dead, institutions, beliefs, or national symbols, or bring them into contempt, or disrepute.”¹⁰⁰ At immediate issue in *Lee v. Tam* is an application filed by the dance-rock band “The Slants,” who seek to register the band’s name. The Patent and Trademark Office denied registration on the ground that “The Slants” is disparaging to persons of Asian ancestry. A similar issue arises with respect to the National Football League’s Washington Redskins, who had several of their trademarks cancelled on the ground that the marks disparage Native Americans.¹⁰¹

Assume for present purposes that there are indeed Asian-Americans offended by The Slants’ name and (as there surely are¹⁰²) Native Americans offended by the Washington football team’s

⁹⁸ Alternatively, proponents of patents on tax shelters might argue that the novelty and nonobviousness criteria should be relaxed—or even reversed—with respect to bads such as tax shelters. If patents are granted (only?) for bads that are old and obvious, then they will do little to incentivize innovation.

⁹⁹ No. 15-1293 (oral arg. Jan. 18, 2017).

¹⁰⁰ 15 U.S.C. § 1052(a).

¹⁰¹ See *Pro-Football, Inc. v. Blackhorse*, 112 F. Supp. 3d 439 (E.D. Va. 2015) (affirming cancellations), appeal pending, No. 15-1874 (4th Cir.).

¹⁰² A telephone poll conducted by the Washington Post of 504 self-identified Native Americans found that 9% were offended by the Redskins’ name, 90% were not bothered, and 1% had no

name. These marks thus generate real negative externalities, though what the government should do about that is a more difficult question. A Pigouvian tax on ethnic slurs would clearly violate the First Amendment.¹⁰³ The argument in *Lee v. Tam* is that the federal government also violates the First Amendment when it denies applicants such as The Slants and the Washington football team monopoly power over their allegedly disparaging marks. In other words, while Pigouvian taxation is barred by the First Amendment, Pigouvian monopoly is arguably required by the First Amendment (at least against the background of generally available trademark protection).

Omri Ben-Shahar has suggested that trademark registration with respect to ethnic slurs also has desirable quantity-reducing consequences. Ben-Shahar writes:

There is a wicked irony in the government’s desire to deny registration of disparaging trademarks. The government naïvely believes that denial of registration would reduce the preponderance of offensive names and logos, and thus protect offended groups from frequent insults. But the exact opposite is more likely to happen. Trademark registration has the sole effect of making it easier for its owner to suppress the speech of others and to exclude competitors’ use of the term. If the REDSKINS mark cannot be registered, it would be easier for competitors to sell unlicensed Redskins insignia, thus increasing the sales of merchandise carrying the name. Trademark protection, in other words, is a sure way to limit the proliferation of a slur.¹⁰⁴

Ben-Shahar’s argument is a version of the basic economic intuition outlined in Part I. What lessons might we draw from the antitrust analysis in Part III with respect to this argument? Consider first the concern regarding institutional capacity: here, as in patent case (but not in the antitrust case), Pigouvian monopoly is the default rule rather than the exception. Striking down the disparagement clause would reduce informational burdens on the PTO because the agency would no longer need to distinguish between disparaging marks and all others.

Consider next the risk of overshooting. Perhaps the optimal number of uses of the term “Redskins” is greater than zero, though there is no reason to believe that it is greater than the

opinion. See John Woodrow Cox, Scott Clement & Theresa Vargas, *New Poll Finds 9 in 10 Native Americans Aren’t Offended by Redskins Name*, Wash. Post., May 19, 2016, https://www.washingtonpost.com/local/new-poll-finds-9-in-10-native-americans-arent-offended-by-redskins-name/2016/05/18/3ea11cfa-161a-11e6-924d-838753295f9a_story.html. Even if those percentages are correct, then with a Native American population of 5.43 million in the United States, that would suggest that nearly 490,000 Native Americans are indeed offended by the Redskins’ name. Cf. U.S. Census Bureau, *2015 American Community Survey 1-Year Estimates*, <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>. (And that figure does not include non-Native Americans who might take offense as well.

¹⁰³ The Supreme Court has struck down discriminatory taxes on speech in several cases. See *Ark. Writers’ Project, Inc. v. Ragland*, 481 U.S. 221 (1987); *Minneapolis Star & Tribune Co. v. Minnesota Comm’r of Revenue*, 460 U. S. 575 (1983); *Grosjean v. American Press Co.*, 297 U. S. 233 (1936).

¹⁰⁴ Ben-Shahar, *supra* note 26.

optimal number of uses of the marks “Patriots” and “Falcons,” which also enjoy trademark protection. And if we think that trademark protection is too strong across the board, then denying registration to the Washington football team would be a strange place to start.

Next, consider distribution. Registration enriches the owner of the Washington football team at the expense of fans, who would presumably pay lower prices for team products in the absence of trademark protection. Again, though, there is no reason to believe that distributional concerns are any more salient in this context than with respect to the New England Patriots or Atlanta Falcons (unless one harbors special animosity toward the Washington football team’s owner, as quite a few do¹⁰⁵). As for price discrimination, the Washington football team does indeed sell different versions of its branded apparel at different locations and different price points so as to discriminate among consumers based on willingness to pay, but it is doubtful that the team’s price discrimination efforts work perfectly.

What about the worry that trademark registration for ethnic slurs might lead to the generation of new (or worse) bads? While it is hard to believe that individuals dream up new ethnic slurs so they can register trademarks, it is not hard to believe that the availability of trademark protection influences a firm’s choice to use an ethnic slur as a mark. If the Washington football team’s mark is cancelled, then one possibility is that the team would keep its name and knock-off apparel bearing the name would proliferate. Another possibility is that the team’s owner would change the name so that he could reap the profits that trademark registration brings (“the Washington Federalists”?)¹⁰⁶. In the latter case, the frequency with which the word “Redskins” is used would almost certainly plummet, except for a brief blip of media coverage around the time that the change is announced. Alas, which of these two scenarios is more likely requires insight into the murky mind of the team’s owner.¹⁰⁷

The more general point is that with trademark, as with patent, monopoly has an ambiguous effect on quantity. In the basic model, quantity under monopoly is lower than quantity under perfect competition. Yet the opportunity to reap monopoly profits might also encourage entry or, in the trademark case, continued use. We cannot say that Pigouvian monopoly is always second-best to Pigouvian taxation because in some cases it is indeed worse than no monopoly and no tax.

¹⁰⁵ See Jeb Lund, The 15 Worst Owners in Sports, *Rolling Stone* (Nov. 25, 2014), <http://www.rollingstone.com/culture/lists/the-15-worst-owners-in-sports-20141125/daniel-snyder-washington-redskins-20141121> (listing Snyder as number one).

¹⁰⁶ Lara Brown, Hail to the Federalists, *U.S. News & World Report* (June 19, 2014), <http://www.usnews.com/opinion/blogs/lara-brown/2014/06/19/why-the-washington-redskins-should-be-renamed-the-federalists>.

¹⁰⁷ See Monte Burk, What Is Dan Snyder Thinking?, *Forbes.com* (Feb. 4, 2011), <http://www.forbes.com/sites/monteburke/2011/02/04/what-is-dan-snyder-thinking/#458dbb4a32e5> (discussing surprising lawsuit filed by Snyder against a local newspaper); What Was Dan Snyder Thinking?, *ESPN* (Jan. 9, 2002), <http://www.espn.com/espnw/news-commentary/article/1307944/what-was-daniel-snyder-thinking> (discussing puzzling decision by Snyder to fire team’s head coach after an impressive streak of wins).

D. Law as Pigouvian Cartel

As the previous sections made clear, the idea of Pigouvian concentration is not entirely foreign to the law. Beyond just government-run monopolies and government-granted monopolies, we might think of licensing and permitting schemes (e.g., cap and trade) as instances of Pigouvian concentration.

Might we think of our own profession this way as well? The suggestion is only semi-serious (but still “semi-”). Consider the fact that litigation imposes costs on the court system that litigants fail to fully internalize through filing fees. Consider, moreover, that a plaintiff’s litigation expenditures subtract from the defendant’s utility (and vice versa), and so each side (arguably) overinvests because she fails to internalize the negative effects of her investment on her rival. Louis Kaplow has suggested that a Pigouvian tax on litigation expenditures might therefore enhance welfare.¹⁰⁸ And we might apply a similar analysis beyond the litigation context. Certainly some of what transactional lawyers do is to help parties maximize joint gains (i.e., contractual surplus). Just as certainly, some of what transactional lawyers do is to help their clients capture a larger share of that surplus. Activity of the latter sort is rent-seeking and pure deadweight loss.¹⁰⁹

An argument against a Pigouvian tax on lawyering (and thus against Pigouvian concentration in the legal services profession) is that if only some of what lawyers do is rent-seeking, then a tax on everything that lawyers do is not necessarily welfare-enhancing. Imposing a broad tax on legal services would be like imposing a broad sales tax on pharmacies that vend both cigarettes and medicines: the tax might reduce deadweight loss in the market for cigarettes but increase deadweight loss in the market for medicines. Which of these two effects outweighs the other cannot be determined simply from observing that the provision of legal services sometimes generates negative externalities. In other words, the Pigouvian prescription of imposing a tax equal to external cost is confounded by the substantial heterogeneity in the external cost per unit of legal services supplied.

Suppose, though, that a modest Pigouvian tax on lawyering is optimal (combined, perhaps, with a subsidy for public interest lawyers or lawyers who serve low-income clients). If the political power of lawyers makes the first-best unattainable, might Pigouvian concentration—through entry barriers such as a J.D. requirement and state bar exams—emerge as a potentially viable second-best? The antitrust analysis in Part III helps us to answer the question (or, at least, to think about how we might generate an answer). There may indeed be a real risk of overshooting. As for distribution, it is probably the case that consumers of legal services are drawn disproportionately from the high end of the income spectrum, so the wealth transfer from clients to lawyers is not obviously regressive on net. Lawyers can price-discriminate in their fee structure, but licensing requirements for lawyers impose constraints on quantity such that

¹⁰⁸ See, e.g., Louis Kaplow, *Shifting Plaintiffs’ Fees Versus Increasing Damage Awards*, 24 *RAND J. Econ.* 625, 628 n.11 (1993).

¹⁰⁹ So too for tax lawyers. Some of what tax lawyers do is to help their clients comply with the law. Some of what tax lawyers do is to help their clients avoid tax. Activity of the latter sort leads to gains to the client and equivalent losses to the fisc.

Pigouvian concentration is indeed likely to reduce the relevant negative externalities. It is unlikely that any future technological change will solve the problem of rent-seeking, and so the irreversibility concern is less salient. And while a lawyer cartel might have incentives to create more complex laws so as to drive up demand for services, lawyers might also wield more political power if there were no entry barriers and thus even more of us.

The discussion here is concededly cursory and purposefully so; the goal is not to present a comprehensive overview of the legal profession but instead to illustrate how the analysis above might shed light on areas other than mergers and antitrust. Those who argue for deregulation of the legal profession¹¹⁰ should consider (a) whether a Pigouvian tax on legal services is optimal, and (b) whether entry barriers serve as a second-best substitute for a tax. Perhaps A-B InBev and the American Bar Association are not so different from one another. At the very least, thinking through the regulation of beer and other acknowledged bads might lead us toward new insights regarding the regulation of our own profession.

Conclusion

So was it a mistake for the Justice Department to compel partial divestiture when A-B InBev sought to acquire its rival SABMiller? The answer, I think, is “yes” in this case but not in every case of a merger between two producers of bads. A merger in a market for bads may affect distribution, incentives for innovation, and the political prospects for future Pigouvian taxes, sometimes in ways that outweigh the desirable quantity-reducing effects of concentration. This essay is an effort to think through these competing considerations and to connect the merger question to similar questions in other areas of law. Maybe a widespread embrace of Pigouvian taxation will render these sorts of questions irrelevant at some point, but until then, the puzzle of the second best continues to be one of first-order importance.

¹¹⁰ See, e.g., Clifford Winston & Quentin Karpilow, Should the US Eliminate Barriers to the Practice of Law? Perspectives Shaped by Industry Deregulation, 106 *Am. Econ. Rev.: Papers & Proceedings* 171 (2016).