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Inflation, Market Failures, and Algorithms

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ABSTRACT

Inflation is a problem of tremendous scale. But the leading response to inflation—raising interest rates—also poses economic risks. Raising interest rates rapidly may increase unemployment and heighten the chance of recession. This Article argues that there is a better way to think about anti-inflation policy. Rather than defaulting to interest rate hikes that harm markets, policymakers should prioritize laws that lower prices while improving markets. Most importantly, there is evidence that businesses have raised prices by colluding with one another, exploiting consumers' behavioral and informational limits, and lobbying for protectionist laws that block competition. Artificial intelligence pricing algorithms and dark pattern online manipulation tools have further enhanced businesses' ability to charge higher prices. Although those preexisting market failures did not cause the high levels of inflation that began in 2021, they create new inflation challenges and opportunities.

A key challenge is that in an era of automated pricing algorithms and market failures, direct solutions to inflation, like the end of the war in Ukraine, may not bring the full level of lowered prices that would be otherwise expected. Fortunately, market failures now also provide an inflation-fighting tool that would not otherwise exist—like a piggy bank of market improvements that the law can break open to offset some portion of

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inflation. Interest rate hikes would surely still be needed, perhaps to address the bulk of inflation, but avoiding even a small amount of economically harmful rate hikes is still worthwhile. Many of these market improvement opportunities lie in existing administrative agency authority, but considerably more could be done through new legislation, such as a wide-ranging Price Transparency Act. Moreover, these legal reforms are desirable independent of inflation because they would improve efficiency. Thus, policymakers should resist the urge to rely solely on interest rate hikes that destroy wealth and should instead simultaneously pursue legal rules that promote prosperity. Doing so could even transform a grave crisis into a tremendous economic opportunity.

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INTRODUCTION

The dominant narrative surrounding inflation is that we must pick our economic poison: high inflation or high interest rates. Doing nothing and allowing high inflation to continue can cause economic volatility and leave people poorer if their wages fail to keep up.[1] Unfortunately, the leading policy response currently being deployed—increasing interest rates—also tends to be economically harmful, even if less harmful than inflation.[2] The aim of interest rate hikes is to encourage less spending, which brings down prices. However, lower spending levels also slow down the economy and increase the chance of a recession.[3] Rising interest rates thus risk increasing poverty, eliminating jobs, and making households of all income levels worse off.[4]

What if this choice between two poisons is framed incorrectly? This Article argues that lawmakers and scholars have paid insufficient attention to a more attractive policy tool for helping to reduce inflation: using legal

1. There is a debate as to the extent and nature of harm resulting from inflation, but there is little doubt that high levels of inflation come with risks. *See, e.g.*, Yair Listokin & Daniel Murphy, *Macroeconomics and the Law*, 15 ANN. REV. L. & SOC. SCI. 377, 383 (2019) ("High inflation is costly both because high (and volatile) inflation is associated with uncertainty over the value of contracts, thereby reducing exchange and output in the economy, and because high inflation can cause a reduction in the amount of labor or other factors of production supplied in the economy."); Hongyi Li & Heng-fu Zou, *Inflation, Growth, and Income Distribution: A Cross-Country Study*, 3 ANNALS ECON. & FIN. 85, 87 (2002) ("When inflation is taking place, price rises tend to run ahead of increases in money wages. Therefore inflation leads to a shift of income away from wage earners, and toward profits.").

2. There is some economic debate about whether inflation or interest rate increases are more harmful, but because this Article focuses on comparing interest rates to other anti-inflation tools, answering that question is unnecessary for the core arguments below.

3. Note that tax increases, such as those in the Inflation Reduction Act, have a similar effect. *See, e.g.*, NPR Planet Money, *Inflation Reduction Actually*, NPR, at 4:59 (Aug. 19, 2022), https://www.npr.org/transcripts/1118552609 [https://perma.cc/2P7K-KQQB] ("The biggest way the Inflation Reduction Act takes money out is through new taxes on big companies. This will pull back spending . . . .").

4. *See, e.g.*, Jeanna Smialek, *Fed Confronts a 'New World' of Inflation*, N.Y. TIMES (June 24, 2022), https://www.nytimes.com/2022/06/24/business/economy/fed-inflation.html [https://perma.cc/A7UC-WFVQ] (noting that the "painful process [of rate increases] would ramp up the risk of a recession that would cost jobs and shutter businesses").

authority to correct market failures. Three categories of market failures are particularly worthy of greater consideration. First, inflation policy conversations proceed without considering the research, especially related to behavioral economics, that suggests that even prior to the recent rise in inflation businesses deployed numerous strategies to cause customers to pay higher prices on everything from mortgages to paper towels.[5] Price transparency laws can help consumers find the best deals and thereby counteract those price increases.[6] Second, another overlooked way to fix market failures would be to remove excess licensing laws, which raise consumer prices by requiring everyone from hairstylists to casket sellers to undergo training and pass an exam before offering their services.[7] Finally, scholars and policymakers have paid some attention to antitrust as an inflation-fighting tool, but most have dismissed that possibility without analyzing the institutional nuances of different types of antitrust intervention and how they might fit into a broader anti-inflation toolkit.[8] Because legal reforms in each of these areas—price transparency, government licensing, and antitrust—move markets toward what economic theory refers to as their "perfect" equilibrium,[9] they will be referred to below as "market

5. *See, e.g.*, Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1449 (1999) [hereinafter Hanson & Kysar, *Evidence of Market Manipulation*] ("Pricing has become still another method of manipulation."); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630, 635 (1999) ("[M]arket outcomes frequently will be heavily influenced, if not determined, by the ability of one actor to control the format of information, the presentation of choices, and, in general, the setting within which market transactions occur.") Hanson and Kysar provide numerous examples, including that "the manufacturer of Campbell's Soup knows, as an empirical fact, that placing soup cans *out* of alphabetical order on store shelves will increase sales by exactly six percent" and "retailers, studying such research as . . . *the Effects of Music on Purchasing Behavior*, can lower customer blink rates from the normal average of thirty-two times a minute to a narcotic fourteen blinks a minute." *Id.* at 748.

6. *See infra* Section II.B. (summarizing the empirical literature on price increases and the law's ability to respond).

7. *See* Morris M. Kleiner & Alan B. Krueger, *Analyzing the Extent and Influence of Occupational Licensing on the Labor Market*, 31 J. LAB. ECON. S173, S179 (2013) (estimating that such practices raise prices paid by about 15%).

8. *See* Paul Krugman, Opinion, *Why Are Progressives Hating on Antitrust?*, N.Y. TIMES (Jan. 18, 2022), https://www.nytimes.com/2022/01/18/opinion/biden-inflation-monopoly-antitrust.html [https://perma.cc/JVL8-CR5T] (observing that "linkage of monopoly power to inflation is facing vehement, almost hysterical, criticism"). For one of the leading recent academic calls for using antitrust to fight inflation, see Hal Singer, *Antitrust Should Be Used to Fight Inflation*, AM. PROSPECT (Feb. 2, 2022), https://prospect.org/economy/antitrust-should-be-used-to-fight-inflation [https://perma.cc/42YV-5K5H].

9. More specifically, perfect competition occurs when informed consumers make rational choices in a market filled with many competing sellers, among other conditions. Of course, despite the widespread use of this concept in modeling, it is widely recognized that perfection is unattainable. On the influence and limits of this notion, which draws on the concept of the widely influential concept of "perfect competition," see Herbert Hovenkamp & Fiona Scott Morton, *Framing the Chicago School of Antitrust Analysis*, 168 U. PA. L. REV. 1843, 1854 (2020). The terminology of "perfect competition" is not used below because legal scholars tend to associate competition with antitrust, whereas the focus here is on other areas of law that advance related goals.

improvement laws."

Importantly, effective market improvement laws are desirable even in normal times. They would overall increase efficiency, promote economic growth, raise employment, and make a dent in economic inequality.[10] Consequently, this Article concludes that policymakers should prioritize addressing whatever portion of inflation is possible through market improvement laws and other laws that are overall more economically beneficial.[11] Whether that amounts to reducing one point of inflation through market improvements or ten points, and even if interest rates still need to be used in addition to market improvement laws, the result would be some quantity less of interest rate increases that have heavy economic costs.

Despite the economic appeal of market improvement laws, scholars and lawmakers have almost completely ignored them in fighting inflation. The market improvement reforms that this Article concludes are most immediately promising—price transparency laws—are not even part of those debates. Although antitrust laws had their legislative moment in the spotlight in the 1970s,[12] scholars dismissed the idea that they could be used to reduce inflation based on many arguments that are not valid today, if they ever were.[13] These various objections are considered in greater depth below, but one common argument is that market failures did not cause inflation and thus it would be a mistake to look to market failures as a solution.[14] However,

10. *See, e.g.*, Jonathan B. Baker & Steven C. Salop, *Antitrust, Competition Policy, and Inequality*, 104 GEO. L.J. ONLINE 1, 11–12 (2015) ("Market power . . . contributes to growing inequality."); Oren Bar-Gill & Rebecca Stone, *Pricing Misperceptions: Explaining Pricing Structure in the Cell Phone Service Market*, 9 J. EMPIRICAL LEGAL STUD. 430, 453–54 (2012) (discussing in passing the regressive redistribution resulting from market failures related to behavioral economics); Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1267, 1267 (2016) (summarizing the effects of improved antitrust on inequality); Rory Van Loo, *Broadening Consumer Law: Competition, Protection, and Distribution*, 95 NOTRE DAME L. REV. 211 (2019) (surveying the literature and finding evidence that market failures related to consumer markets, including both consumer protection and antitrust, may contribute significantly to economic inequality); Clark C. Havighurst & Barak D. Richman, *The Provider Monopoly Problem in Health Care*, 89 OR. L. REV. 847, 865 (2011) ("Allowing nonprofit hospitals or other providers to gain market power by merger . . . causes extraordinary redistributions of wealth . . . ."). Note that the effects on inequality are subject to debate, especially regarding how greater competition might have an impact on workers. The above authors explore some of these uncertainties, and for greater scholarly skepticism about antitrust reducing inequality, see Daniel A. Crane, *Antitrust and Wealth Inequality*, 101 CORNELL L. REV. 1171, 1171, 1183 (2016); *cf.* Hiba Hafiz, *Rethinking Breakups*, 71 DUKE L.J. 1491 (2022) (raising concerns about the fate of labor following antitrust breakups).

11. The level of inflation is calculated merely by collecting information about the prices paid, and thus these mechanisms for lowering prices can offset inflation even if the underlying market failures did not cause the inflation in the first place. *See infra* Part I.

12. *See* Antitrust Procedures and Penalties Act, Pub. L. No. 93-528, § 3, 88 Stat. 1706, 1708 (1974) (increasing fines and adding felony penalties for violations of the Sherman Act).

13. *See, e.g.*, Milton Handler, *Antitrust—Myth and Reality in an Inflationary Era*, 50 N.Y.U. L. REV. 211, 222 (1975) (dismissing the idea of using antitrust to counteract inflation).

14. *See infra* Parts I & III (analyzing the sources of resistance to antitrust and offering new reasons why some skepticism is warranted).

that reasoning would mean that we should not rely on interest rates to address all of inflation either, since the war in Ukraine and supply-chain disruptions in China caused much of the current inflation. Yet interest rates are used without asking whether they are addressing the direct causes of inflation. Despite the limits to such objections, similar arguments are being repeated today to dismiss the idea of using antitrust.[15] The real question should instead be what will work to address inflation.

If win-win market improvement laws exist, why would so many observers overlook and even dismiss their importance without engaging in a more nuanced legal institutional analysis? Although politicization clouds the debate, conceptual barriers also impede a comprehensive analysis. As a threshold matter, the scholarly inattention to market improvement laws partly reflects intellectual silos. Economists, like legal scholars, are not generalists. They focus on either macroeconomics or microeconomics, and within those broad areas have further specializations. Inflation lies in the domain of macroeconomics. Indeed, the leading alternatives to interest rates that lawmakers have pursued are macroeconomic tools such as taxes and federal spending, as demonstrated by the Inflation Reduction Act of 2022.[16] Yet consumer law, antitrust, and other market improvement laws are the domain of microeconomics.[17] Further complicating matters, most legal scholars engaging in economic analysis focus on microeconomics.[18] Although areas such as financial regulation involve macroeconomic considerations, the broader inattention to macroeconomics has prompted the observation that "[l]aw and economics should be called law and microeconomics."[19] Consequently, most of the scholars best situated to design microeconomic market improvement laws rarely pay attention to

15. *See infra* Parts I & III.

16. *See* President Joseph Biden, Remarks by President Biden on the Inflation Reduction Act of 2022 (July 28, 2022), https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/07/28/remarks-by-president-biden-on-the-inflation-reduction-act-of-2022 [https://perma.cc/HWJ9-P37F] (summarizing the legislation, whose main inflation components include tax adjustments). The Act's Medicare price negotiation provision is, however, microeconomic. *Id.* As mentioned above, tax increases, like increasing interest rates, tend to have the effect of slowing down the economy. *See* NPR Planet Money, *supra* note 3.

17. *See* Yair Listokin, *Law and Macro: What Took So Long?*, 83 LAW & CONTEMP. PROBS. 141, 146 (2020).

18. Mark Kelman, *Could Lawyers Stop Recessions? Speculations on Law and Macroeconomics*, 45 STAN. L. REV. 1215, 1216 (1993) ("When legal scholars and law students discuss the impact of economics on their understanding of law, they invariably think about *microeconomics*, not macroeconomics."). A notable exception to this is financial regulation scholarship.

19. *See* Yair Listokin, *Law and Macroeconomics*, U. OXFORD (Feb. 10, 2017), https://www.law.ox.ac.uk/business-law-blog/blog/2017/02/law-and-macroeconomics [https://perma.cc/68CZ-LNAU]; *see also* YAIR LISTOKIN, LAW AND MACROECONOMICS: LEGAL REMEDIES TO RECESSIONS (2019) (outlining the disconnect between macroeconomic approaches and legal scholarship).

macroeconomic issues like inflation.[20]

These conceptual silos may help explain why the macroeconomic inflation toolkit has not fully incorporated recent microeconomic evidence about market failures. Inflation has not been a major problem in the U.S. since the early 1980s.[21] Whereas in 1980 the average markup on goods sold in the United States was 21% above cost, by 2016 that figure had reached 61%.[22] This data alone suggest that there could be a far greater magnitude of opportunity for the law to improve markets than there was in 1980.[23]

Moreover, since 1980, firms have greatly enhanced their capabilities to deploy behavioral economics insights and algorithmic pricing to push consumers into paying higher prices, including through online interfaces designed to confuse shoppers, known as "dark patterns."[24] The portion of U.S. employees who need a license to legally work grew from 5% in the 1950s to almost 30% by 2013, thereby raising the average prices people pay by about an estimated 15% on everything from cosmetology to funeral services.[25] And over the last two decades, the average market concentration level increased 90%, meaning that a smaller number of companies now hold greater market share throughout the economy.[26] Although the consequences are disputed, several leading studies have found growing market power over time.[27]

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20. *See* Listokin, *supra* note 17, at 147 (noting financial regulation as a rapidly changing exception).

21. *See, e.g.*, Donald Tomaskovic-Devey & Ken-Hou Lin, *Financialization: Causes, Inequality Consequences, and Policy Implications*, 18 N.C. BANKING INST. 167, 171 (2013) (stating that "[o]ne of the central developments of the 1970s crisis era was . . . high inflation," which was not "slowed" until the "early 1980s").

22. Jan De Loecker, Jan Eeckhout & Gabriel Unger, *The Rise of Market Power and the Macroeconomic Implications*, 135 Q.J. ECON. 561, 562 (2020).

23. A rise in markups is not inevitably anticompetitive, requiring a more nuanced analysis of the potential determinants. *See id.*; *infra* Part II.

24. *See* Rory Van Loo, *Helping Buyers Beware: The Need for Supervision of Big Retail,* 163 U. PA. L. REV. 1311, 1387 (2015); Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995, 999 (2014); *infra* Section II.A (summarizing the empirical literature establishing that such practices raise prices). Despite hopes that the internet would make prices more competitive, research has found that is not necessarily the case. *See* Glenn Ellison & Sara Fisher Ellison, *Search, Obfuscation, and Price Elasticities on the Internet*, 77 ECONOMETRICA 427, 428–29 (2009) (showing how online sellers can raise prices 6% to 9% by obfuscation of quality and shipping fees).

25. *See* Kleiner & Krueger, *supra* note 7, at S179. Also, the number of states granting auto dealers the exclusive right to sell manufacturers' cars in their territory—essentially state-granted monopolies—increased from twenty-seven in 1979 to all fifty today. Francine Lafontaine & Fiona Scott Morton, *Markets: State Franchise Laws, Dealer Terminations, and the Auto Crisis*, 24 J. ECON. PERSPS. 233, 236 tbl.1, 240 (2010).

26. *See* Gustavo Grullon, Yelena Larkin & Roni Michaely, *Are US Industries Becoming More Concentrated?*, 23 REV. FIN. 697, 698 (2019) (finding also that more than 75% of U.S. industries have increased in concentration).

27. *See, e.g.*, *id.* at 698; De Loecker et al., *supra* note 22 (attributing rising margins over time to market power). It is difficult to establish this relationship conclusively, due to empirical limitations.

Thus, interest rates became the default anti-inflation tool in a prior world with fewer market failures and when automated profit-maximizing algorithms did not drive market prices. In 1980, when markups were only 21% above costs, there may not have been much room to push prices lower while addressing market failures, especially because some markup is needed above costs for a business to survive.[28] Whatever the merits of scholars' dismissal of antitrust as a tool for combatting inflation in the 1970s and 1980s, the last time the issue received significant attention, that issue should be reexamined in light of major subsequent market developments.[29]

Although the question of magnitude of impact is difficult to determine, as a threshold matter it is worth observing that markup increases from 21% to 61% are not insignificant next to the concerns about inflation of about 8% or 9% annually.[30] Yet instead of starting with anti-inflation tools that increase prosperity, lawmakers have allowed the country to rely mostly on interest rate increases that lower prosperity for all, as they did in the 1970s and 1980s. Legal scholars have also not turned their attention to the connection between market failures and inflation in any sustained manner.[31] In short, there is an absence of sustained effort to update the anti-inflation policy paradigm to the modern algorithmic markup economy.

To reach the conclusion that microeconomic market improvement laws deserve greater attention in a macroeconomic inflation policy toolkit, this Article synthesizes the theory and evidence. It shows why many of the main reservations about market improvement laws can be addressed with a more comprehensive legal and economic institutional analysis. It also offers a framework for analyzing inflation laws that shows why many of the dismissals of market improvement laws rest on an incomplete economic picture.

Although a comprehensive economic cost-benefit analysis anti-inflation framework has many components, one of the most essential is giving greater weight to the side effects that inflation policies have on the economy beyond inflation. Once the side effects are not assumed to be inevitably negative, and are given greater weight, it becomes difficult to

28. Even some markup above marginal cost is generally assumed to be necessary. *See, e.g.*, Ellison & Ellison, *supra* note 24, at 428–29 (assuming several percentage points of profit above marginal cost before calculating supracompetitive price levels).

29. *See* Handler, *supra* note 13, at 213.

30. On levels of inflation, see Gabriel T. Rubin, *U.S. Inflation Hits New Four-Decade High of 9.1%*, WALL ST. J. (July 13, 2022, 7:07 PM), https://www.wsj.com/articles/us-inflation-june-2022-consumer-price-index-11657664129 [https://perma.cc/48VQ-5FNC].

31. Some economists have begun to turn their attention to the connection between antitrust-related issues and inflation, although even those analyses do not consider the area of market improvement laws that this Article shows is the most promising, those related to consumer law. *See infra* Part I.

justify ignoring market improvement laws that advance both total wealth and distributional goals. Regardless of the magnitude of their impact on inflation, such laws should be the highest priority largely because they benefit society regardless of their impact on inflation. Whatever portion of interest rate increases they prevent can save the economy from damage that does not need to happen.

Another key factor in an anti-inflation framework that has received insufficiently nuanced analysis is the ease with which they can be implemented. Once that administrability factor is analyzed more fully, for example, it becomes clear that the market improvement laws that have defined past debates—especially antitrust laws that would address oligopoly industries—suffer from major limitations that other market improvement laws do not. For instance, the most significant antitrust remedy for reducing monopoly power—breaking up large companies—typically takes years to implement and may cost the broken-up firm billions of dollars to complete.[32] Thus, lower prices from breakups may not materialize for years.

In contrast, price transparency laws are better situated to create a fast reduction in prices. For example, consider a 2015 Israeli regulation that required stores to make their price information available in machine-readable form.[33] That law was aimed at allowing third-party price comparison tools to help consumers locate the best prices.[34] Within eight months of that regulation's enactment, prices had begun to decline, and within two years of the regulation's enactment prices decreased by an average of 4% to 5%.[35] Price transparency laws may even overall act on prices faster than an increase in interest rates.[36]

The point here is not that antitrust law should be ignored as an anti-inflation tool. Indeed, some areas of antitrust law could have a quicker effect on pricing, such as investigations into price fixing.[37] It is also possible that price transparency laws with faster price effects might be accompanied by antitrust remedies whose impact will take a few years, thereby offering a more enduring market improvement package for lowering inflation.

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32. Rory Van Loo, *In Defense of Breakups: Administering a "Radical" Remedy*, 105 CORNELL L. REV. 1955, 1986 (2020).

33. Itai Ater & Oren Rigbi, *Price Transparency, Media and Informative Advertising*, 15 AM. ECON. J.: MICROECONOMICS 1, 2 (2023).

34. *Id.*

35. *Id.* This law illustrates a larger set of commercial laws that could help consumers to better locate the best deals—or at least to pressure firms into offering lower prices out of concern that the transparency will drive away customers if the business does not lower prices. For other examples, see *infra* Part II.

36. *See infra* Section III.A.

37. *See infra* Part III. Note that this difficulty in administering refers to inflation purposes, not the administrability for antitrust purposes. On the latter, see Van Loo, *supra* note 32.

Instead, the point is that a more in-depth consideration of administrability shows how structural antitrust interventions may be less immediately helpful than other market improvement laws. Additionally, since these difficult-to-administer antitrust laws have dominated consideration of market improvement laws, the focus on them negatively skews perceptions of the extent to which market improvement laws should be considered in fighting inflation.[38]

These dynamics speak to a final institutional implication. Limited governmental resources and a dysfunctional legislative process mean that Congress and other governmental leaders do not implement every important policy that should exist on the economic merits. Thus, simply because a policy would improve efficiency does not mean it will be enacted as law. Yet the threat of a recession is a well-known way to break political impasse.[39] Consequently, inflation could provide the means to enact market improvement laws that will leave the economy better off than when inflation began its precipitous rise. Responding to inflation with an emphasis on market improvement laws therefore channels the wisdom that policymakers should "[n]ever let a crisis go to waste."[40]

The Article proceeds as follows. Part I explains the theory behind why market improvement laws can help to combat inflation. In so doing, it addresses common objections to looking beyond interest rates. Part II reviews the evidence that market failures drive up prices, and that legal reforms can bring them back down. Part III offers several concrete suggestions for reform, ranging from a universal price transparency statute to inflation impact statements. It also sketches a framework for choosing among inflation policies. That framework shows the potential to build an anti-inflation toolkit rooted not in weakening the economy, but in strengthening it.

I. THE THEORY: WHY IMPROVED MARKETS CAN LOWER INFLATION

Economic theory alone cannot determine the best anti-inflation policy. But theory is important, particularly because empirical evidence is usually insufficient to dispositively prove that any one policy choice is optimal.[41]

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38. More precisely, governmental efforts have prioritized antitrust and scholarly conversations have ignored other areas of market improvement laws. *See infra* Part I.

39. *See generally* POLICY SHOCK: RECALIBRATING RISK AND REGULATIONS AFTER OIL SPILLS, NUCLEAR ACCIDENTS, AND FINANCIAL CRISES (Edward J. Balleisen, Lori S. Bennear, Kimberly D. Krawiec & Jonathan B. Wiener eds., 2017) (summarizing the interplay between crises and legislation).

40. CHARLES C. DOYLE, WOLFGANG MIEDER & FRED. R. SHAPIRO, THE DICTIONARY OF MODERN PROVERBS 47 (2012).

41. *See generally* POLICY SHOCK, *supra* note 39 (outlining the challenges of policymaking and

Several theoretical considerations provide essential foundational support for the possibility of using market improvement laws to counter inflation. The theory behind relying on interest rates tends to fail to recognize that (1) unlike interest rates, some alternative anti-inflation policies cause no economic harm or even have economic benefits; (2) market improvement laws can offset inflation from even unrelated causes, such as wars; (3) market improvement laws can complement direct inflation efforts; and (4) efficiency considerations alone have not produced all beneficial market laws. Each of these oversights will be taken in turn, in the process laying the theoretical foundations for a more comprehensive anti-inflation framework.

A. AVOIDING ECONOMIC HARM SHOULD BE A HIGH PRIORITY

All else equal, policymakers should seek to lower inflation through interventions that avoid as much collateral economic damage as possible, and ideally even through interventions that help the economy. Arguably price controls are disfavored for this reason. When inflation skyrocketed in the 1970s, an event sometimes called the "Great Inflation," a period of price controls followed.[42] Most aggressively, in 1971, President Nixon issued an executive order freezing wages, rents, and prices for ninety days.[43] That shock briefly decreased inflation, but by the mid-1970s those freezes had contributed to a recession.[44] Largely because it is believed that they "eventually lead to the destruction of the free-enterprise system,"[45] price controls are a heavily disfavored tool for fighting inflation.[46] Thus, minimizing economic harm is a priority in choosing how to respond to inflation.

Compared with price controls, interest rates are seen as a more appealing tool because they leave intact markets' ability to set prices based

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difficulties in assessing underlying risks).

42. *See* Listokin & Murphy, *supra* note 1, at 392 ("[T]he initial response to the Great Inflation of the 1970s in the United States was an extraordinarily intrusive legal regime of price controls.").

43. Exec. Order No. 11,615, 36 Fed. Reg. 15,727 (Aug. 17, 1971). There were some exceptions. *Id.*

44. *See* Listokin & Murphy, *supra* note 1, at 392 ("These price controls reduced inflation briefly but ultimately caused so much economic harm that they could not be sustained . . . .").

45. MILTON FRIEDMAN, CAPITALISM AND FREEDOM 135 (40th anniversary ed. 2002).

46. *See* ROBERT L. SCHUETTINGER & EAMONN F. BUTLER, FORTY CENTURIES OF WAGE AND PRICE CONTROLS: HOW NOT TO FIGHT INFLATION 3 (1979); Note, *Price and Sovereignty*, 135 HARV. L. REV. 755, 761 (2021) ("Price controls represent not just an inadequate solution to inflation and other social problems, they also signal the success of a conception of popular sovereignty anathema to the freedom of and through the market prized by neoliberalism."); Ben Casselman & Jeanna Smialek, *Price Controls Set Off Heated Debate as History Gets a Second Look*, N.Y. TIMES (Jan. 13, 2022), https://www.nytimes.com/2022/01/13/business/economy/inflation-price-controls.html [https://perma.cc/6UZS-UKYK] (reporting results from a survey of economists) ("Artificially holding down prices leads to shortages, inefficiencies or other unintended consequences, like an increase in black-market activity."). When used to address market failures, however, this antipathy for price controls does not hold.

on supply and (reduced) demand rather than a government-commanded price. However, interest rate increases still distort markets by causing a retraction in spending.[47] That raises the question of whether preferable responses to inflation exist that would have less dire consequences.

Policymakers considered such an option in the 1970s, when lawmakers passed legislation strengthening antitrust and the Federal Trade Commission ("FTC") exercised its authority more aggressively.[48] It is difficult to know what effect these reforms had on inflation.[49] Nonetheless, one point is worth recognizing, because it speaks to the possibility of using market improvement laws today. Unlike with price controls and interest rate increases, there is no strong evidence that the increase in antitrust enforcement in the 1970s harmed the economy. Instead, there are good reasons, based in theory and evidence, to think that effective antitrust laws, like other market improvement laws, strengthen the economy.[50]

Faced with a choice between two tools for lowering inflation, one that is viewed as harming the economy (interest rates) and one that is viewed as strengthening the economy (market improvement laws), it would seem straightforward to choose the latter. Since market improvement laws are preferable to interest rates on the issue of their economic effects outside of inflation, the main sources of resistance to them must lie in questions about whether and how they affect inflation.

B. MARKET INTERVENTIONS HELP EVEN IF ONE-OFF AND UNRELATED TO INFLATION'S CAUSES

One of the main sources of resistance to using antitrust to combat inflation, both in the 1970s and more recently, is that shortcomings in competition did not create inflation.[51] As a result, even in the best-case

47. *See, e.g.*, Frederic S. Mishkin, *Is the Fisher Effect for Real?: A Reexamination of the Relationship Between Inflation and Interest Rates*, 30 J. MONETARY ECON. 195, 213 (1992) (summarizing the challenges of rate increases).

48. Donald I. Baker, *Restating Law and Refining Remedies: The Trading Company Act, the Joint Research Act, and the Local Government Antitrust Act*, 55 ANTITRUST L.J. 499 (1986). For examples, see Antitrust Procedures and Penalties Act, Pub. L. No. 93-528, § 3, 88 Stat. 1706, 1708 (1974) (making some violations of the Sherman Act a felony and increasing fine); William E. Kovacic, *"Competition Policy in Its Broadest Sense": Michael Pertschuk's Chairmanship of the Federal Trade Commission 1977-1981*, 60 WM. & MARY L. REV. 1269, 1269 (2019) ("[T]hrough the 1970s, the Federal Trade Commission . . . expanded the focus of antitrust enforcement . . . .").

49. Tomaskovic-Devey & Lin, *supra* note 21, at 171.

50. This issue is not easy to rigorously study, making it difficult to draw strong conclusions, but see JONATHAN B. BAKER, THE ANTITRUST PARADIGM: RESTORING A COMPETITIVE ECONOMY 2–3 (2019) (seeing economic benefits in stronger antitrust enforcement of the 1970s).

51. *See* Handler, *supra* note 13, at 222 (stating that those proposing to combat inflation with antitrust assume that "the deficiencies of antitrust—substantive, procedural, remedial and enforcement-related—have combined to contribute to our present economic woes"). Law professor Ramsi Woodcock

scenario, antitrust solutions leave in place the structural causes of inflation.[52] That means that antitrust, and by extension market improvement laws more broadly, are seen as one-off while inflation occurs on an ongoing basis.

For instance, when gas or grain supplies shrink due to the Russia-Ukraine war, there is a real increase in cost because the supply has been lowered, and price is the product of supply and demand. Additionally, a potential structural demand-side contributor is an increase in the supply of money, such as through a government stimulus package, which can increase demand because people have a greater capacity to spend.[53] Critics have thus argued that antitrust is an inadequate response to inflation because it can only be used once and does not address the inflation's ongoing structural causes.[54]

Before responding to that concern, it is helpful to address a threshold mathematical issue that can lead to confusion. Inflation is calculated by averaging the prices paid on a large list of goods and services, ranging from medical expenses to paper towels. Those weighted average prices are then compared to the prices paid in a previous time period, to obtain an average price increase. Inflation is thus the rate of change in prices as measured by the percentage increase between two periods. Consequently, anything that causes the prices to change between those two periods averaged—whether market anxiety, a war abroad, supply-chain disruptions, greater competition, or something else—can contribute to raising or lowering the inputs to the number reported out as inflation. And because inflation is based on weighted average prices across markets, that average can be brought up or down by even industry-specific market improvements whose effects would then feed into the average price.[55] Of course, there may be differences in the magnitudes or timing of the price reductions and the degree to which the reductions are sustained, as discussed in Part III. But as a purely mathematical matter, market improvement laws can offset price increases resulting from structural causes of inflation between those two measured points in time.

Nonetheless, the core proposition in the critiques that market failures

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recently deployed this reasoning. *See* Ramsi Woodcock, Opinion, *Antitrust Can't Tame Inequality, Let Alone Inflation*, HILL (Jan. 28, 2022), https://thehill.com/opinion/finance/591609-antitrust-legislation-cant-tame-inequality-let-alone-inflation [https://perma.cc/46YS-AC2N] ("But . . . can [antitrust] at least tame inflation? The answer is: not by much because everyone agrees that a major cause of the present inflation is supply chain disruption . . . .").

52. *See, e.g.*, Woodcock, *supra* note 51.

53. *See id.* at 324. Note that an increase in money supply need not increase inflation if, for example, it is accompanied by a lower velocity of money changing hands.

54. *See, e.g.*, Handler, *supra* note 13, at 222–24 (observing the mismatch between antitrust and inflation).

55. *Cf.* Richard S. Markovits, *An Ideal Antitrust Law Regime*, 64 TEX. L. REV. 251, 266 (1985) (observing in passing that antitrust can offset some amount of inflation).

did not necessarily cause most of inflation is correct. It is also therefore true that improving markets may leave in place contributors such as high demand and supply chain breakdowns.[56] However, interest rate changes do not necessarily directly address the bulk of inflation's structural causes either, such as supply chain shortcomings and the Ukraine war in the current inflationary period.[57] A requirement that only the causes of inflation can be deployed in response to inflation would mean that we cannot use interest rates to address inflation caused by these supply-side developments, such as the war in Ukraine. Yet clearly that is not how either policymakers or scholars approach inflation, and thus we should not dismiss market improvement laws simply because market failures are not the direct cause of all inflation that exists.

Perhaps the most generous way to view this critique is as speaking to the perceived comprehensiveness of the solution. After the desired market improvements are achieved, prices could not be reduced further because businesses cannot sell below cost for sustained periods. Yet because market failures did not cause the inflation, some level of inflation may still remain after market improvement interventions. Accordingly, once market improvement laws reach their limits in addressing market failures, they also reach a ceiling for lowering inflation. In contrast, at least in theory, interest rates can be increased indefinitely over a span of many years.[58]

This concern ultimately speaks to the issues of magnitude and timing. A threshold observation is that because most conversations focus on antitrust, the magnitude of price reduction assumed to be possible is less than it would be if the array of legal reforms considered also included consumer laws and reduced occupational licensing. If each of these areas can lower prices by two percentage points each year, together they can offset a more meaningful magnitude of inflation each year, six percentage points each year, than any one of them could individually. Indeed, a series of one-time market improvement reforms could lower inflation for several years, in ways

56. It is possible, if not likely, that some companies are increasing inflation by raising prices more than necessary while using structural inflation as cover. But that does not appear to be the main cause of inflation, and thus the skepticism is warranted.

57. For instance, interest rates cannot fix the effects of pandemics or wars on supply, which is thought to be responsible for most of the current inflation. *See* James Mackintosh, *War, Pandemic, Inflation: Markets Struggle When Narratives Collide*, WALL ST. J. (Mar. 15, 2022, 9:45 AM), https://www.wsj.com/articles/war-pandemic-inflation-markets-struggle-when-narratives-collide-11647351753 [https://perma.cc/Y7HV-QHD8]. Thus, to dismiss market improvement laws because they do not address the structural roots of inflation while allowing interest rates to be used to address all of inflation would be a policymaking double standard—or it would paralyze the government's ability to respond to inflation if that standard is consistently applied. It is also worth noting that both interest rates and some market improvement laws both seek to influence consumer behavior, albeit in different ways.

58. In reality, there would be practical limits imposed by the resulting harms to the economy and society by extreme freezes in investment.

that are in some ways interchangeable with a series of interest rate hikes over several years—interchangeable at least in the sense of the impact on the announced inflation figures.[59] For now, the point is theoretical, but Part II will explore the empirical evidence of the potential magnitude of price reduction in each of these areas.

Pushing this point further, in theory, market improvement laws could even in some inflationary contexts serve as the sole anti-inflationary policy tool. (To be clear, in reality, given questions of magnitude and administrability discussed in greater depth below, market improvement laws are more likely to be partial supplements for interest rate hikes in high-inflation periods).[60] By way of illustration, imagine a simplified island-nation that sells two products, bananas and coconut water, each accounting for half of households' expenditures. The bananas are sold by a cartel for $10 per bunch, even though without price fixing the price would be $8 per bunch. Coconut water is sold at a competitive price of $10 per gallon. Now imagine a storm decimates the island's coconut trees, such that the price per gallon of coconut water increases to $12. The supply-side shock would cause inflation of 10%, from an average price paid of $20 to an average price paid of $22. If authorities responded by prosecuting the banana cartel, thereby pushing the price of bananas down to $8 per bunch, the total price level would be driven back down to $20 ($8 for bananas and $12 for coconuts), thus containing inflation. This containment of inflation could last long enough for the island's coconut producers to plant enough trees, or find alternative sources of coconuts on nearby islands, at which point the price of a gallon of coconut water could move back towards its pre-inflationary level. Under these assumptions, the antitrust intervention would have served as the sole inflation-reducing intervention needed.[61] Moreover, the result would be a more competitive economy post-inflation due to the removal of the cartel.

Of course, the economic implications of such a policy become much more complex with a dynamic rather than a static model, and in a real economy. Still, this hypothetical illustrates how a market improvement policy can be used as the primary tool for responding to inflation despite not at all addressing the causes of inflation. Applying this reasoning to the current macroeconomic context, the war in Ukraine, labor shortages, and the supply-chain constraints from lockdowns in China have contributed

59. Of course, the underlying numbers that feed into the top-line inflation figure may look drastically different, in that the prices in different product categories would presumably be quite different depending on whether interest rates or market improvement laws were lowering prices.

60. *See infra* Part III.

61. The possibility of deflation in this situation could be handled in any number of ways, including many growth-oriented policies that—unlike cartels or raising interest rates—could benefit the economy.

significantly to inflation but may require several years to resolve. If market-oriented price reductions offset the price effects of some of those temporary structural contributors to inflation, they could in theory reduce inflation until those direct structural causes can be resolved. At a minimum, assuming market improvement reforms could not address all of the excess inflation, they could require some amount less of interest rate increases and thereby lessen the resulting collateral economic risks and costs of addressing inflation.

A related issue is that policy responses to inflation involve a prediction about the likely persistence of the shock to prices. One-time, short-term shocks that increase prices would ultimately provoke different policy responses, if any at all, compared with shocks expected to persist. For policy shocks that last for long periods, say decades, one-off market interventions may in the larger picture prove to be of more limited help, such as only delaying the inevitably large-scale interest rate increases. In such a scenario, market improvements could still be economically beneficial, but a less significant part of the overall response to inflation.

Two points provide valuable perspective here. First, when central banks make decisions about interest rates, they will often need to make highly uncertain predictions about the potential persistence of price shocks. It would be almost impossible to reliably predict, for instance, how long the war in Ukraine would depress energy and food supplies or how long supply chains would be disrupted by China's COVID policies. In the face of such uncertainty about persistence, arguably the case is even stronger for starting with one-off investments in market improvements as the default initial response to signs of inflation. Then if it turns out that inflation is more enduring, policymakers would always have more aggressive interest rates as a backup or to make up the difference. So faced with uncertainty about the persistence of inflation, and about whether we're dealing with a short-term shock, the smarter choice may still be to double down on market improvement policies that are beneficial either way, rather than potentially harming markets unnecessarily.

Second, many instances of inflation would have at least some direct structural solutions that will eventually arrive and that are preferable to interest rate increases—such as the end of a war, investment in alternative energy sources, and supply chain improvements. Additionally, interest rate increases are typically implemented gradually over many years. Simply classifying the shock as either a permanent change in the rate or a one-off event seems too binary of an analysis, whereas most causes and solutions will lie on a spectrum of duration depending on how long various structural solutions will take to arrive. Again, by offsetting some portion of otherwise

needed interest rate increases in the first five to ten years of inflation, market improvement laws could, in theory, still end up preventing some level of interest rate increases in years eight to ten of an inflationary period, by buying time for slower structural causes to arrive.

Furthermore, this gap-filling effect can offer a different type of long-term benefit because inflation can result from purely psychological factors rather than any structural cause.[62] In other words, even if there is no shortage of supply or increase in demand, prices can go up (or stay up) if people expect inflation.[63] For instance, if there are widespread rumors that inflation will happen, many consumers might decide to quickly purchase large amounts of goods at the current price. The sudden spike in demand can drive up prices, further stoking fears of inflation.[64] Consequently, market improvement laws could prevent—or lessen the intensity of—longer lasting, self-fulfilling inflation by keeping the expectation of inflation from ever taking root in consumers' minds, even if the direct impact on prices from market improvement laws only lasts a few years as a gap-filler until structural causes of inflation can be resolved.

In short, it would be a mistake to require that inflationary solutions directly address the causes of inflation or have the potential to address the entirety of inflation in order to be considered. Nor should market improvement laws be dismissed simply because they lead to one-off price changes while inflation is a rate of change. The more important question is whether market improvement laws can help meaningfully ameliorate inflation. At a minimum, when the direct causes of inflation have potential direct solutions that will potentially arrive within a few years, market improvement laws can still offset some of that inflation because they can lower prices with comparable if not greater speed than interest rate increases.[65]

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62. *See, e.g.*, Edgar R. Fiedler, *The Price-Wage Stabilization Program*, 1972 BROOKINGS PAPERS ON ECON. ACTIVITY 199, 200 (1972) ("During that period the economy entered a cost-push inflation—a spiral of rising wages and prices, based not on union or corporate market power, but on the widely and deeply ingrained expectations of endless rapid inflation that were being cemented into the institutional framework within which price and wage decisions are made in our economy.").

63. *See id.* at 200.

64. *See* Franklin R. Shupp, *Optimal Control, Uncertainty and a Temporary Incomes Policy*, *in* PROCEEDINGS OF THE 1972 IEEE CONFERENCE ON DECISION AND CONTROL AND 11TH SYMPOSIUM ON ADAPTIVE PROCESSES 21, 21 (1972) (citing expectation of price increases as the driving force behind certain kinds of inflation).

65. On the comparable timing, see the discussion of administrability *infra* Section III.A.

C. MARKET FAILURES AND ALGORITHMIC PRICING ARE RELEVANT TO DIRECT SOLUTIONS

There is a certain irony in criticism that market improvement laws do not address the structural causes of inflation. Those critiques have overlooked a key feature of market improvement laws. Such laws have a potentially important supportive role to help address inflation's direct causes. That supportive role may be especially important in an era of algorithmic pricing and widespread market failures.

To have their full impact, direct solutions may depend on market improvement laws. Assume that structural shocks—such as China's COVID-19 shutdown, which deprived factories of workers—increase prices by ten percentage points, but only for a year or two. If consumers are not discerning enough to choose sellers who quickly adjust prices downward after that shock has passed, then what could have been a temporary price hike can become a sustained price increase because consumers, on autopilot, are continuing to purchase as before or expecting prices to continue rising. Temporarily high inflation may thus condition consumers to expect ongoing high levels of inflation.

Price transparency laws are perhaps uniquely situated among legal reforms to eliminate this potential psychological contribution to inflation. Antitrust alone cannot fix this problem, because consumers need to be able to understand and locate low prices to provide competing businesses with sufficient incentives to offer them.[66] If consumers can quickly understand that the structural increases in costs amount to only four percentage points, a ten percent price increase should arouse their suspicions and drive them to look for a better deal. Consumers would thereby reward sellers offering lower prices by seeking them out rather than assuming such sellers do not exist.[67] Increasing consumers' accuracy in understanding prices may therefore be necessary for direct solutions to lessen the level of inflation fully.

Market improvement laws may also directly contribute to addressing inflation before structural solutions arrive. Structural and psychological

66. *See, e.g.*, OREN BAR-GILL, SEDUCTION BY CONTRACT 26 (2012) (summarizing behavioral economics pricing dynamics that operate independently of traditional measures of competition); Kelman, *supra* note 18, at 1263–64 ("[Monopolists] might quickly realign prices after . . . a [demand] shock to maximize revenues. The risk-averse, imperfectly competitive firm . . . may find it preferable to maintain historical mark-ups . . . It is not apparent . . . how antitrust enforcement could counteract the sorts of oligopolistic structures most likely to exhibit atypically high levels of price rigidity."); *infra* Part II.

67. Ryan McCauley, *Breaking A Monopoly: Vigilante Justice or the Sort of Innovative Approach We Celebrate?*, 24 J. ANTITRUST, UNFAIR COMPETITION L. & PRIV. SECTION ST. BAR CAL. 76, 76 (2015) (explaining that increased consumer consumption of lower prices encourages low price levels).

factors can combine to contribute to high levels of inflation.[68] For instance, if there are structural reasons for an additional price increase of two or three percentage points, people may expect the impact to be even higher, such as eight percentage points. Moreover, the rapid changes in price mean that prices learned in past shopping trips are no longer relevant. Consequently, assessing current prices becomes more cognitively difficult. The research on behavioral economics suggests that the greater the cognitive load, the easier it is for sellers to charge anticompetitively higher prices.[69] As a result, consumers may have more difficulty determining the true competitive price during inflationary times.[70]

Businesses would be expected to exploit these consumer expectations and cognitive limits. Unfortunately, that issue has become politicized, as if the whole problem of inflation can be reframed as "greedflation."[71] But once this conversation moves away from such framing, the idea that businesses would charge the highest prices possible simply restates economic theory about how markets work.[72] Furthermore, managers arguably have a fiduciary duty to charge the highest prices legally possible in order to maximize shareholder value or would see themselves as having such a duty.[73]

Unlike in prior periods of high U.S. inflation, today many managers need not ever even consciously decide to capitalize on inflation or be aware that such behavior is occurring. Many prices are set by automated algorithms instructed to maximize profits.[74] An effective algorithm following those

68. *See, e.g.*, Janet L. Yellen, Chair, Bd. Governors Fed. Rsrv. Sys., Remarks on Inflation Dynamics and Monetary Policy at the Philip Gamble Memorial Lecture 3 (Sept. 24, 2015) ("Today many economists believe that these features of inflation in the late 1960s and 1970s—its high level and lack of a stable anchor—reflected a combination of factors, including . . . the emergence of an 'inflationary psychology' whereby a rise in actual inflation led people to revise up their expectations for future inflation. Together, these various factors caused inflation . . . to ratchet higher over time.").

69. *See, e.g.*, Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1477 (1998) (providing an overview of the behavioral economics research on consumers' cognitive limitations); *infra* Part II.

70. In theory, the opposite cannot be ruled out—that people will pay more attention to prices during inflationary periods, perhaps because they are more concerned about prices. But the literature on price manipulation suggests it is more difficult than most assume to locate the best price. *See infra* Part II.

71. *See* Lydia DePillis, *Is 'Greedflation' Rewriting Economics, or Do Old Rules Still Apply?*, N.Y. TIMES (June 3, 2022), https://www.nytimes.com/2022/06/03/business/economy/price-gouging-inflation.html [https://perma.cc/7LHX-W55H].

72. *See, e.g.*, Xavier Gabaix & David Laibson, *Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets*, 121 Q.J. ECON. 505, 506–07 (2006) (showing why companies face market pressures to shroud prices).

73. *See* Stephen M. Bainbridge, *In Defense of the Shareholder Wealth Maximization Norm: A Reply to Professor Green*, 50 WASH. & LEE L. REV. 1423, 1445 (1993).

74. *See, e.g.*, Rory Van Loo, *Rise of the Digital Regulator*, 66 DUKE L.J. 1267, 1292 (2017) ("[D]igital intermediaries run tests year-round to identify which algorithms earn higher profits."); Ariel Ezrachi & Maurice E. Stucke, *Artificial Intelligence & Collusion: When Computers Inhibit Competition*, 2017 U. ILL. L. REV. 1775, 1794 (exploring antitrust issues of algorithmic pricing); Alexander MacKay

instructions would be expected to exploit whatever confusion arises from inflation, whether the manager knew that was happening or not. It is possible that whereas managers observing lowered costs as inflation subsides would lower prices assuming that consumers would expect such adjustments, algorithms would only do so once the consumers show, through market behavior, that they expect lower prices. Indeed, in theory, the algorithm could even learn from an inflationary period that prices could be more rapidly raised and encourage continued price increases. In other words, the algorithm would be trained to encourage inflation. Inflation would thereby become an algorithmically reinforced phenomenon. Although the research on automated pricing algorithms is still nascent, there is evidence that these algorithms increase prices.[75]

At a minimum, policymakers would ideally consider the possible effects of algorithms on inflation. An anti-inflation toolkit that fails to consider the possible changes to inflation introduced by algorithmic pricing could produce more muted price reductions than in prior eras. That would necessitate even greater interest rate cuts to achieve the same level of price reduction as in the past, meaning more economic harm would be caused and an increased risk of recession. It follows that market improvement laws that improve consumers' ability to advance their interests in the face of algorithmic pricing could prove to be a valuable tool in either avoiding algorithmically enhanced inflation or in getting more of an anti-inflation effect from addressing the original causes of inflation.[76] Without such laws, there is a risk that perceptions of inflation—and businesses' inevitable efforts to exploit those perceptions—will cause inflation to endure long after the original structural contributors have ended.

D. LAWMAKERS HAVE NOT NECESSARILY PRODUCED EFFICIENT LAWS

Skepticism about using market improvement laws against inflation sometimes implicitly assumes that little or nothing more can be done to improve markets.[77] That assumption might seem sensible at first glance because an independent basis exists for market improvement laws: efficiency. Efficiency has long been one of the most powerful influences in designing the law.[78] Since market improvement laws already have such a

& Samuel N. Weinstein, *Dynamic Pricing Algorithms, Consumer Harm, and Regulatory Response*, 100 WASH. U. L. REV. 111, 173 (2022) (concluding algorithmic pricing may raise prices even without collusion).

75. *See infra* Part II.

76. *See infra* Part II.

77. That assumption is implied by the logic that because competition failures did not cause inflation, market improvement laws cannot combat it. *See supra* Section I.B.

78. *See, e.g.*, Oliver Wendell Holmes, Jr., *The Path of the Law*, 10 HARV. L. REV. 457 (1897)

persuasive intellectual cornerstone pushing them forward, it is understandable why observers might posit that the extra motivation added by inflation would be inconsequential. After all, if there are legal rules that would move markets toward perfection, they would improve efficiency and thus they would be expected to already exist.

If this assumption were true, lawmakers would have already passed up-to-date price transparency and antitrust laws and would have previously removed any excess governmental licensing. State and federal lawmakers would also have refrained from succumbing to interest groups' lobbying for laws that provide protections for various products and occupations. Under this assumption, the Department of Justice ("DOJ") and FTC would also already have all the authority, resources, expertise, and motivation necessary to prevent price increases resulting from market failures. In such a world, there would be no additional room for legal reforms to push prices down and meaningfully address inflation.

However, that assumption is suspect. There is a rich literature arguing that laws are not passed as a result of a rational process that reflects society's best interests.[79] Laws are instead the product of a messy set of interest group advocacy and political considerations that often reflect powerful opposition to regulation.[80] More specifically, scholars have observed these political economy dysfunctions in each of the three areas of market improvement laws. Consumers have had limited success in bringing about favorable price transparency and licensing laws because they are so dispersed,[81] whereas concentrated industry lobbyists exert great influence on legislatures.[82] And a consensus has emerged that the antitrust framework has fallen far short,

(observing economic efficiency as a value emphasized by the law); Alan Schwartz & Louis L. Wilde, *Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis*, 127 U. PA. L. REV. 630, 668 (1979) (stressing efficiency as a priority for market regulation); Jedediah Britton-Purdy, David Singh Grewal, Amy Kapczynski & K. Sabeel Rahman, *Building A Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L.J. 1784, 1789–90 (2020) (remarking on and critiquing the powerful influence of efficiency).

79. For a prominent example and application of this vast literature, see JERRY L. MASHAW, GREED, CHAOS, AND GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW 81–105 (1997).

80. *See, e.g.*, Lee Anne Fennell & Richard H. McAdams, *The Distributive Deficit in Law and Economics*, 100 MINN. L. REV. 1051, 1052–53 (2016) (showing how law and economics operates under a questionable assumption that the desired distribution will subsequently occur but legislative shortcomings mean that such distribution may never result); MARTIN GILENS, AFFLUENCE AND INFLUENCE: ECONOMIC INEQUALITY AND POLITICAL POWER IN AMERICA 81 (2012) ("[W]hen preferences between the well-off and the poor diverge, government policy bears absolutely no relationship to the degree of support or opposition among the poor.").

81. *See* Jean Braucher, *Foreword: Consumer Protection and the Uniform Commercial Code*, 75 WASH. U. L.Q. 1, 3 (1997) (describing obstacles to consumer participation).

82. *See* Aaron Edlin & Rebecca Haw, *Cartels by Another Name: Should Licensed Occupations Face Antitrust Scrutiny?*, 162 U. PA. L. REV. 1093, 1108, 1140 (2014) (exploring the role of lobbying in occupational licensing).

even if there is disagreement about the best ways to improve that framework.[83] Stated otherwise, the skeptics have inadequately considered how institutional dysfunctions make it unlikely that the law has done everything it can to prevent widespread market failures that cause high prices.

Ultimately, each of the theoretical points made in this Part hinges on an empirical claim about whether most of what can be done to address market failures has already been done. Thus, to have a full sense of the potential for market improvement laws to meaningfully reduce inflation, the next Part turns to the empirical evidence.

II. THE EVIDENCE: MARKET IMPROVEMENT LAWS CAN LOWER INFLATION

Part I showed that, in theory, inflation can be addressed by improving consumer markets, rather than by holding them back. That theory rests on two key empirical assumptions: (1) market failures significantly raise consumer prices, and (2) legal reforms can address those market failures. This Part summarizes the evidence relevant to both assumptions, divided into the three areas of market improvement laws: price transparency, licensing, and antitrust.

Before turning to that discussion, a caveat is in order. A well-known limitation of macroeconomics is the ability to predict magnitude, as demonstrated by the difficulty in estimating what the effects of any given interest rate hike will have on inflation.[84] Microeconomics offers greater precision by studying a particular market, but a similar magnitude challenge plagues the study of aggregate market failures across the economy, in part because information about costs, prices, and preferences are often unavailable.[85] Thus, market improvement laws face predictive difficulties, but since other anti-inflation tools face related limits, that should not be grounds for dismissing market improvement laws. It bears emphasis that this Article's core arguments do not depend on establishing any particular

83. *See* Jonathan B. Baker, *Finding Common Ground Among Antitrust Reformers*, 84 ANTITRUST L.J. 705, 708–09 (2022) (summarizing reform proposals). Of course, antitrust scholars do not agree on the nature and extent of the legal framework's shortcomings. *See id.*

84. Mishkin, *supra* note 47, at 213; *see also* Paul Krugman, Opinion, *I Was Wrong About Inflation*, N.Y. TIMES (July 21, 2022), https://www.nytimes.com/2022/07/21/opinion/paul-krugman-inflation.html [https://perma.cc/SY6S-DDST] ("Everyone in the debate agreed that deficit spending would stimulate demand; everyone agreed that a stronger economy with a lower unemployment rate would, other things equal, have a higher inflation rate. What we had instead was an argument about magnitudes.").

85. Asher Schechter, *The Rise of Market Power and the Decline of Labor's Share*, PROMARKET (Aug. 14, 2017), https://promarket.org/rise-market-power-decline-labors-share [https://perma.cc/T8E7-EVQ6] (interviewing economists Jan De Loecker and Jan Eeckhout about data challenges).

magnitude of market failure. They instead depend on concluding that there are some significant price-increasing market failures that the law can address.

A. MARKET FAILURES SIGNIFICANTLY RAISE CONSUMER PRICES

Despite empirical limits, a growing body of empirical research has begun to quantify the higher prices paid due to inadequate price transparency, occupational licensing, and antitrust laws.[86] The following summary aims to provide a sense of the potential magnitudes rather than to establish any particular level of price increases.

1. Price Transparency Market Failures

Businesses systematically charge consumers higher prices by making it harder to compare options. The list of tactics that businesses use for this purpose is too vast to summarize. In one common strategy, known as drip pricing, businesses shift costs to later phases in the purchase process.[87] Airlines charge fees for baggage, printer manufacturers charge high prices for ink refills, and Airbnb adds cleaning and convenience fees that significantly increase the final price beyond what originally appeared in the search results.[88] Researchers have found that these practices weaken consumers' ability to compare full prices—even if consumers know that those costs will be added later.[89] As another example, companies offer teaser rates for online subscriptions or credit cards, knowing that many people will not follow through with unsubscribing or changing credit cards before the prices increase.[90]

Behavioral surcharges are not limited to complex purchases. Even in seemingly straightforward retail settings, sellers like Walmart and Target implement countless strategies to profit systematically from "market manipulation."[91] For instance, stores put higher-price items where most consumers' eyes naturally gravitate on the shelves and misleadingly frame prices as being "discounted" from some original higher price.[92] The ability

86. For a summary of some of the principal limits and why they should not block such studies from being used, see Van Loo, *supra* note 10.

87. *See* Gabaix & Laibson, *supra* note 72, at 506–07.

88. *See id.*

89. *See id.*

90. *See, e.g.*, Oren Bar-Gill & Ryan Bubb, *Credit Card Pricing: The Card Act and Beyond*, 97 CORNELL L. REV. 967, 967 (2012) ("[R]egulators should . . . consider limiting the ability of issuers to charge introductory teaser interest rates that are, in a sense, 'too low.' "); Shelle Santana, Steven K. Dallas & Vicki G. Morwitz, *Consumer Reactions to Drip Pricing*, 39 MKTG. SCI. 188, 188 (2020) (summarizing widespread drip pricing practices).

91. *See* Hanson & Kysar, *Evidence of Market Manipulation*, *supra* note 5, at 1420.

92. *Id.*

to influence people's choices has only grown in the digital era. Sellers scientifically study details including facial patterns of people in advertisements and the ordering of items on the screen.[93] I have previously argued that such practices, both across retail and the broader economy, have macroeconomic implications for issues such as the distribution of wealth.[94] These strategies, and countless more like them, may sound trivial, but for the purposes of anti-inflation, it is important to view them through an empirical lens.

Economists empirically studying the resulting price effects have consistently found that these strategies cause consumers to pay significantly more. For instance, excessively complex cell phone plans were associated with 8% higher consumer prices.[95] Hiding mandatory fees on StubHub until later in the purchase process increased ticket payments by 21%.[96] Even in straightforward online settings, where price comparisons are a click away, economists have linked obfuscation practices such as lengthy product descriptions and add-on shipping costs to price increases of possibly around 6%.[97]

In short, the empirical evidence indicates that a lack of pricing transparency significantly increases prices by exploiting informational and behavioral market failures—even for products of identical quality.[98] Moreover, many of these studies only look at one pricing strategy. Therefore, the full effects of multiple practices could produce even higher magnitudes of increased prices.[99] Inflation policies designed in an era before these practices became widespread do not reflect a comprehensive understanding of consumer prices today.[100]

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93. Calo, *supra* note 24.

94. *See* Van Loo, *supra* note 24, at 1357–59.

95. Bar-Gill & Stone, *supra* note 10 at 453–54. The reference point for the comparison was the plan at the same cell phone carrier that would have saved the most money. *Id.*

96. Tom Blake, Sarah Moshary, Kane Sweeney & Steve Tadelis, *Price Salience and Product Choice*, 40 MKTG. SCI. 619, 619, 625 (2021). Unlike with the cell phone plans, this research reflects strategies that pushed consumers toward a different product (a different seat) that was more expensive. *Id.*

97. Ellison & Ellison, *supra* note 24, at 428–29.

98. For reviews of this literature, see Michael D. Grubb, *Failing to Choose the Best Price: Theory, Evidence, and Policy*, 47 REV. INDUS. ORG. 303, 310–13 (2015); BAR-GILL, *supra* note 66, at 26; Van Loo, *supra* note 10, at 219–31.

99. For instance, the study by Oren Bar-Gill and Rebecca Stone finding 8% increases in price looked only at consumers' mistakes in choosing among the plans offered by a single carrier. *See* Bar-Gill & Stone, *supra* note 10, at 453. Consequently, if the plan purchased was compared to the best deal available across all carriers, and factors beyond complexity were considered, the price increase could be significantly higher.

100. On the growth of such practices, see BAR-GILL, *supra* note 66, at 2–10; Ellison & Ellison, *supra* note 24, at 428.

2. Licensing Law Market Failures

Legislatures regularly enact laws that insulate existing market participants from competition and consequently produce higher prices in consumer transactions. For example, tariffs increase the prices of foreign sellers, thereby enabling domestic sellers to charge higher prices.[101] Less widely recognized is that state license laws protect about 25% of occupations.[102] These laws require massage therapists, hair braiders, fortune tellers, and many others to satisfy various conditions to work. They typically mandate that the aspiring worker complete a year of expensive training, pay hundreds of dollars for a license, and pass a licensure exam that also comes with a fee.[103] Some licensing provides valuable quality control, but the restrictions often go beyond what is needed for consumer protection—such as Louisiana and Tennessee statutes requiring that caskets only be sold by licensed sellers.[104] Economists have found, for instance, that some licensing restrictions raised dental service prices by over 10% without improving oral health.[105] Evidence also suggests that legal reforms giving nurse practitioners greater licensing independence reduced prices by as much as 16% without diminishing the "quality and safety of health services."[106] Economists' rough estimate of the aggregate impact of licensing restrictions is that they raise consumer prices by about 15% across much of the service economy.[107]

Other restrictive laws also reach consumer goods. Laws in all fifty states

101. On the possibility of reducing tariffs in response to inflation, see Matthew Yglesias, Opinion, *Biden Can Do Much More to Fight Inflation*, BLOOMBERG (May 15, 2022), https://www.bloomberg.com/opinion/articles/2022-05-15/biden-can-do-much-more-to-fight-inflation [https://perma.cc/HQU6-7DNT].

102. *See* Morris M. Kleiner & Evgeny Vorotnikov, *Analyzing Occupational Licensing Among the States*, 52 J. REGUL. ECON. 132, 134 (2017).

103. *See* Dick M. Carpenter II, Lisa Knepper, Kyle Sweetland & Jennifer McDonald, *The Continuing Burden of Occupational Licensing in the United States*, 38 ECON. AFFS. 380, 380 (2018) (studying licensing laws across all fifty states).

104. *See* St. Joseph Abbey v. Castille, 712 F.3d 215, 225–26 (5th Cir. 2013) (finding no rational basis for concluding that the statute helped safety, health, or consumer protection); Craigmiles v. Giles, 312 F.3d 220, 228–29 (6th. Cir. 2002) (finding that the statute whose true goal was "to privilege certain businessmen over others . . . cannot survive even rational basis").

105. *See* Morris M. Kleiner & Robert T. Kudrle, *Does Regulation Affect Economic Outcomes? The Case of Dentistry*, 43 J.L. & ECON. 547, 573 (2000) ("[A] state that changed from a low or medium to highest restrictiveness could expect to see an increase in the price of dental services of about 11 percent."); Coady Wing & Allison Marier, *Effects of Occupational Regulations on the Cost of Dental Services: Evidence from Dental Insurance Claims*, 34 J. HEALTH ECON. 131, 131–32 (2014) (finding that limiting the authority of hygienists increases the prices of basic dental services by about 12%).

106. Morris M. Kleiner, Allison Marier, Kyoung Won Park & Coady Wing, *Relaxing Occupational Licensing Requirements: Analyzing Wages and Prices for a Medical Service,* 59 J.L. & ECON. 261, 261 (2016).

107. *See* MORRIS M. KLEINER, OCCUPATIONAL LICENSING: PROTECTING THE PUBLIC INTEREST OR PROTECTIONISM? 2–3 (Upjohn Inst. Emp. Rsch., Policy Paper No. 2011-009, 2011), http://research.upjohn.org/cgi/viewcontent.cgi?article=1008&context=up_policypapers [https://perma.cc/4JX2-2P62].

limit the number of franchises that can sell any manufacturer's car in a given territory, thereby providing auto dealers with local monopolies, preventing online sales of new vehicles, and making in-person price comparisons difficult.[108] A DOJ study, relying on estimates by Goldman Sachs, concluded these statutes raise prices by 8.6%.[109]

A final related category is zoning laws, which often make obtaining a government building permit far more onerous. For example, economists have estimated that such zoning regulations cause a "regulatory tax" on single-family homes of over 50% of the total home value in the San Francisco Bay Area and over 20% in Boston.[110] The price impact varies greatly by location, and not all areas have zoning laws. However, because housing has a strong impact on inflation, even a few percentage points would prove particularly meaningful for inflation.[111]

3. Antitrust Market Failures

The empirical study of antitrust is, in key ways, less reliable than research in other areas of market improvement laws. Nonetheless, it provides reason to believe that antitrust could play a meaningful role in lowering prices. Economists have linked many mergers and high levels of industry concentration with lower consumer welfare and higher prices.[112] One study of fifty mergers, albeit not necessarily representative ones, found that most of them increased prices, typically by about 10%.[113]

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108. *See, e.g.*, Daniel A. Crane, *Tesla and the Car Dealers' Lobby*, 37 REGUL. 10, 12–14 (2014); Francine Lafontaine & Fiona Scott Morton, *Markets: State Franchise Laws, Dealer Terminations, and the Auto Crisis*, 24 J. ECON. PERSPS. 233, 240 (2010).

109. *See* GERALD R. BODISCH, U.S. DEPT. JUST. ANTITRUST DIV. ECON. ANALYSIS GRP., ECONOMIC EFFECTS OF STATE BANS ON DIRECT MANUFACTURER SALES TO CAR BUYERS 4 (2009), https://www.justice.gov/sites/default/files/atr/legacy/2009/05/28/246374.pdf [https://perma.cc/J6HC-MM2R] (estimating automobile price increases due to territorial monopolies at 8.6%).

110. *See* Joseph Gyourko & Raven Molloy, *Regulation and Housing Supply*, 5B HANDBOOK REG'L & URB. ECON. 1289, 1295–96 (2015).

111. *Cf.* Fernando Alvarez, Andrew Atkeson & Chris Edmond, *Sluggish Responses of Prices and Inflation to Monetary Shocks in an Inventory Model of Money Demand*, 124 Q.J. ECON. 911, 947–49 (2009) (outlining the relationship between housing prices and inflation); *See* Devin Bunten, *Is the Rent Too High? Aggregate Implications of Local Land-Use Regulation* 25 (Fed. Rsrv. Bd. Working Paper No. 2017-64), https://www.federalreserve.gov/econres/feds/files/2017064pap.pdf [https://perma.cc/6GKH-GJPM] (finding that housing prices could overall be lowered several percentage points through more optimal zoning laws).

112. *See* Orley Ashenfelter, Daniel Hosken & Matthew Weinberg, *Did Robert Bork Understate the Competitive Impact of Mergers? Evidence from Consummated Mergers*, 57 J.L. & ECON. S67, S79 (2014) ("Overall, the results from the retrospective literature on mergers show that mergers in oligopolistic markets can result in economically meaningful price increases."); *see also* Louis Kaplow & Carl Shapiro, *Antitrust*, *in* 1 HANDBOOK OF LAW AND ECONOMICS 1073, 1112 (A.M. Polinsky & S. Shavell eds., 2007) ("Collusive outcomes are less likely to occur in industries with more firms . . . .").

113. JOHN KWOKA, MERGERS, MERGER CONTROL, AND REMEDIES: A RETROSPECTIVE ANALYSIS OF U.S. POLICY 39–46 (2015). If the selection of these mergers made them more likely to have been problematic, this result is more indicative of the existence of many mergers that increase prices, rather

Whereas that examination covered numerous industries, other research has focused on particular industries. For instance, since the mid-1990s alone, over one thousand hospital mergers have occurred.[114] A large body of research demonstrates that hospital mergers have overall led to higher prices, but not necessarily improvements in health care quality.[115] The most comprehensive of these studies, a longitudinal analysis of ninety-seven mergers between 1989 and 1996, found that hospital mergers led to price increases of 40%.[116] Studies have found price increases following mergers in other areas as well, including banking,[117] insurance,[118] and food and beverage.[119]

Despite this evidence, estimating prices at specific points in time before and after individual mergers faces methodological limitations because other factors may contribute to the measured price differences.[120] It is also difficult to know what to make of the literature finding that most industries have become more concentrated and dominated by an ever-shrinking number of competitors over the past several decades.[121] The presence of large

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than of the percentage of mergers that do so.

114. *See* Eduardo Porter, *Health Care's Overlooked Cost Factor*, N.Y. TIMES (June 11, 2013), http://www.nytimes.com/2013/06/12/business/examinations-of-health-costs-overlook-mergers.html [https://perma.cc/JV59-WBM5].

115. *See, e.g.*, Barak D. Richman, *Antitrust and Nonprofit Hospital Mergers: A Return to Basics*, 156 U. PA. L. REV. 121, 125 (2007) ("Recent studies suggest that market power pervades the health care sector and is responsible for a torrent of supracompetitive—and even supramonopoly—prices."); Ashenfelter et al., *supra* note 112, at S84–S85 tbl.3 (summarizing post-merger hospital studies with findings ranging from no price increase to increases of 50%, 65%, and 80%).

116. *See* Leemore Dafny, *Estimation and Identification of Merger Effects: An Application to Hospital Mergers*, 52 J.L. & ECON. 523, 528, 530, 544 (2009).

117. *See, e.g.*, ROBERT M. ADAMS, LARS-HENDRICK ROLLER & ROBIN C. SICKLES, MARKET POWER IN OUTPUTS AND INPUTS: AN EMPIRICAL APPLICATION TO BANKING 16, 24 tbl.1 (Bd. of Governors of Fed. Rsrv. Sys., Fin. & Econ. Discussion Series, Discussion Paper No. 2002-52, 2002) (finding anticompetitive markups of 10 basis points for real estate loans and 18 basis point for installment loans).

118. *See, e.g.*, Leemore Dafny, Mark Duggan & Subramaniam Ramanarayanan, *Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry*, 102 AM. ECON. REV. 1161, 1163 (2012) (finding that health insurer consolidation may have caused a 7% increase in premiums).

119. *See* Ashenfelter et al., *supra* note 112, at S79, S91 (finding anticompetitive price increases of 3% for cereal and 1% to 7% for liquor).

120. Merger economists often use a difference-in-differences methodology to compare prices in control group markets unaffected by the merger to prices—before and after—in markets affected by the merger to determine whether margins have increased anticompetitively, rather than relying on businesses' actual cost and price data. *See* John Simpson & David Schmidt, *Difference-in-Differences Analysis in Antitrust: A Cautionary Note*, 75 ANTITRUST L.J. 623, 624 (2008) (discussing assumptions underlying difference-in-differences estimations). This requires locating a similar control group, such as a different geography or stores' own brands, presumed to be unaffected by the merger. *See id.*

121. Among other reasons, the mechanism for the overcharge cannot necessarily be identified from any given study—it might be actual collusion, a rational avoidance of price wars, or algorithmically driven. Nor is a problematic level of concentration necessarily the result of anticompetitive conduct or mergers. For a review of this literature, see Steven Berry, Martin Gaynor & Fiona Scott Morton, *Do Increasing Markups Matter? Lessons from Empirical Industrial Organization*, 33 J. ECON PERSPS. 44,

businesses in a concentrated industry with high markups cannot, by itself, establish that the high markups are caused by the concentration of the industry.[122] Increased productivity and quality—such as Apple's advancements in smart phone quality—can contribute to higher markups in concentrated industries.[123] And some mergers and industry consolidation have been linked to lower prices.[124] Thus, the evidence about how industry consolidation has affected consumers is mixed, but it suggests that in at least some industries, such as health care, there are opportunities to promote more competitive prices by improving antitrust enforcement related to mergers and industry structure.

Another potential source of antitrust-related price inflation comes not from mergers or industry concentration but from price coordination among firms. One prominent example is the pharmaceutical industry. After their patents expire, drug companies such as Pfizer, Merck, and Johnson & Johnson often pay other companies to refrain from offering competing drugs. One estimate put the resulting annual price increase at 5% in the costs of pharmaceuticals.[125]

Usually, however, price coordination occurs in a more hidden manner. Legal scholars have argued that unprosecuted price-fixing is widespread.[126] According to various studies, price-fixing has raised prices to U.S. consumers by 18% to 37% in markets ranging from baby food to cosmetics.[127] By one estimate, the total cost to consumers globally reaches over half a trillion dollars.[128]

59–62 (2019).

122. *See* Berry et al., *supra* note 121, at 46–47.

123. *See, e.g.*, Sam Peltzman, *Productivity, Prices, and Concentration in Manufacturing: A Demsetzian Perspective*, 65 J.L. & ECON. S121, S136, S151 (2022).

124. *See, e.g.*, Ashenfelter et al., *supra* note 112, at S90 tbl.5, S92 tbl.5.

125. C. Scott Hemphill, *An Aggregate Approach to Antitrust: Using New Data and Rulemaking to Preserve Drug Competition*, 109 COLUM. L. REV. 629, 661 (2009) ("The size of the buyer overcharge from pay-for-delay settlements likely exceeds $16 billion."); Jeanne Whalen, *Outlook is Cut for U.S. Drug Sales*, WALL ST. J. (Oct. 29, 2008, 12:01 AM), https://www.wsj.com/articles/SB12252424741 5878553 [https://perma.cc/Y44F-43XH] (putting drug sales at about $297 billion in 2008).

126. *See, e.g.*, Christopher R. Leslie, *How to Hide a Price-Fixing Conspiracy: Denial, Deception, and Destruction of Evidence*, 2021 U. ILL L. REV. 1199, 1199, 1203–04, 1248 (2021) ("Price-fixing conspiracies overcharge consumers by billions of dollars every year."); D. Daniel Sokol, *Policing the Firm*, 89 NOTRE DAME L. REV. 785, 791 (2013) (summarizing the literature on price-fixing and concluding that the resulting overcharge is high).

127. *See* John M. Connor & Robert H. Lande, *The Size of Cartel Overcharges: Implications for U.S. and EU Fining Policies*, 51 ANTITRUST BULL. 983, 983 (2006).

128. JOHN M. CONNOR, GLOBAL PRICE FIXING 1, 46–47 (K. Cowling & D.C. Mueller eds., 2d ed. 2008) (estimating price-fixing impact on prices globally based on samples); *see also* Flavien Moreau & Ludovic Panon, *Macroeconomic Effects of Market Structure Distortions* 1 (Int'l. Monetary Fund, Working Paper No. 2022-104, 2022), https://ssrn.com/abstract=4106663 [https://perma.cc/4KW3-VM3U] (estimating that breaking down French cartels would increase welfare by 3.5%).

Price-fixing may be more of a problem in today's economy because prices are increasingly set using algorithms. Businesses' programmers typically instruct algorithms to find the profit-maximizing price, meaning that the "invisible hand" has become the "digitized hand."[129] Intelligently maximizing profits inevitably amounts to finding ways to set prices above the competitive level.[130] Moreover, the potential magnitude of resulting price increases can be large, with one study showing gas prices increased by 9% to 28% after gas station owners switched from traditional to algorithmic pricing.[131] It is thus plausible that algorithms have expanded what was already believed to be a high level of undetected price-fixing throughout the economy.[132]

In sum, across price transparency, licensing laws, and antitrust, it would be difficult to estimate the precise total level of market failures causing higher prices across the economy. Many markets have not been studied, whether due to the lack of data available, the resource priorities of researchers, or other factors. Nonetheless, there is evidence of potentially widespread market failures causing higher prices. If so, laws effectively addressing those market failures could lead to significantly lower prices.

B. MARKET IMPROVEMENT LAWS CAN WORK

A causal relationship between market failures and high prices implies, but does not necessarily prove, that the law can address those high prices. Given limited governmental resources and reluctance to intervene in markets, it is important to consider the evidence about whether market improvement laws might work.

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129. *See, e.g.*, ARIEL EZRACHI & MAURICE E. STUCKE, VIRTUAL COMPETITION: THE PROMISE AND PERILS OF THE ALGORITHM-DRIVEN ECONOMY 27–29 (2016) (showing how algorithms increasingly set prices); Stephanie Assad, Emilio Calvano, Giacomo Calzolari, Robert Clark, Vincenzo Denicolò, Daniel Ershov, Justin Johnson, Sergio Pastorello, Andrew Rhodes, Lei Xu & Matthijs Wildenbeest, *Autonomous Algorithmic Collusion: Economic Research and Policy Implications*, 37 OXFORD REV. ECON. POL'Y 459–60 (2021) (explaining that a whole industry has arisen of third parties promising businesses help with pricing optimization).

130. For sophisticated modeling demonstrating this proposition, see Emilio Calvano, Giacomo Calzolari, Vincenzo Denicolò, & Sergio Pastorello, *Artificial Intelligence, Algorithmic Pricing, and Collusion*, 110 AM. ECON. REV. 3267, 3280–81 (2020); Assad et al., *supra* note 129, at 460.

131. *See* Assad et al., *supra* note 129, at 463–64. The researchers inferred the timing of adoption of algorithmic pricing, which creates some limitations for these findings. *Id.*

132. Ezrachi and Stucke stated this most clearly in the context of competition, and others have added evidence to this effect. *See* EZRACHI & STUCKE, *supra* note 129, at 32–33; Salil K. Mehra, *Antitrust and the Robo-Seller: Competition in the Time of Algorithms*, 100 MINN. L. REV. 1323, 1325–27 (2016); Assad et al., *supra* note 129, at 461.

1. Price Transparency Laws Can Lower Prices

Many consumer laws lower prices. Yet unlike the attention paid to antitrust decades ago, the absence of scholarship considering consumer laws as a response to inflation suggests that this basic function of consumer laws is not broadly understood. One explanation for that inattention is that the most prominent consumer laws tend to be framed in ethical terms, such as whether a company's practices were unfair or deceptive.[133]

Part of the disconnect may also be that the few consumer laws that most explicitly target prices only apply in narrow circumstances. Most notably, price gouging laws prohibit sellers from exploiting crises to charge considerably more. For example, sellers risk prosecution if they dramatically increase the price of masks or other medical supplies upon the start of a pandemic.[134] Another visible area of consumer pricing laws prohibits "unconscionable" prices in areas such as pharmaceuticals and mortgages, which have been described as pricing practices significantly varying from industry standards.[135] Although relevant as part of a broader anti-inflation toolkit, price gouging and unconscionability do not immediately appear promising for having a large-scale impact on inflation because they are designed to address unusual instances of extreme prices, not routine and systemic price increases across the economy.[136]

Instead, an area of consumer law offers more promise in addressing inflation despite the reality that it is less commonly understood to be about prices. What this Article refers to as price transparency laws is more commonly known as disclosures or nudges and seeks to contain the everyday pricing practices that companies deploy.

Price transparency proposals tend to raise scholarly concerns about the possibility of facilitating seller collusion, and some such mandates have been followed by increases in prices.[137] However, overall more informed consumer markets tend to lead to lower prices.[138] As the examples that

133. *See, e.g.*, KATHERINE PORTER, MODERN CONSUMER LAW 1–3 (1st ed. 2016) (summarizing some of the confusion surrounding consumer law's identity).

134. *See* Michelle M. Mello & Rebecca E. Wolitz, *Legal Strategies for Reining in "Unconscionable" Prices for Prescription Drugs*, 114 NW. UNIV. L. REV. 859, 897–98 (2020).

135. *See id.* at 933–34, 955 (summarizing laws related to unconscionable pricing); 940 MASS. CODE REGS. § 8.06(6) (2023) (prohibiting mortgage lenders from offering terms that "significantly deviate from industry-wide standards or which are otherwise unconscionable.").

136. Additionally, price-gouging laws are seen as potentially inefficient, contributing to shortages by eroding market forces. *See* Mello & Wolitz, *supra* note 134, at 882.

137. One study found evidence of price increases following gasoline price transparency statutes in Chile, although in higher income geographies the policies lowered prices. *See* Fernando Luco, *Who Benefits from Information Disclosure? The Case of Retail Gasoline*, 11 AM. ECON. J.: MICROECONOMICS 277, 278–80 (2019).

138. Dieter Pennerstorfer, Philipp Schmidt-Dengler, Nicolas Schutz, Christoph Weiss & Biliana

follow show, how the mandates are designed is important in determining whether they are helpful.[139]

In several field experiments, simply providing consumers with helpful information lowered the prices those consumers paid. In one experiment, researchers found that sending Medicare recipients a letter advising which of the available plans would be best saved recipients 5% in out-of-pocket expenses.[140] In another, disclosures at the point of sale for payday loans lowered borrowing costs by 11%.[141]

Other studies have found similar effects due to new laws requiring businesses to make prices more broadly available. For instance, consumers paid an estimated 20% less for gas following a law that required electronic billboards on the highways to show all nearby gas stations' prices.[142] Additionally, as mentioned above, another study concluded that an Israeli statute requiring stores to make their prices and product information available in machine-readable formats led to a 4% to 5% reduction in price.[143]

Other research has looked at interventions that sought to help consumers better calculate prices. For example, many states have mandated that grocery stores provide unit pricing labels on the shelf to facilitate price comparisons.[144] These rules require stores to list per unit prices alongside the full purchase price, like the price per ounce of peanut butter or per battery. This allows shoppers to compare offerings of differing sizes and determine

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Yontcheva, *Information and Price Dispersion: Theory and Evidence*, 61 INT'L ECON. REV. 871, 872 (2020).

139. On the broader point of the potential unintended consequences of disclosures, see Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647, 647, 651–65 (2011). Counterintuitively, it may be that not requiring digital price updates in some contexts would prove more helpful, as the aforementioned highway gas station signs lowered prices while national digital reporting of real-time prices seems to come with greater risks of collusion. On those risks, see Ariel Ezrachi & Maurice E. Stucke, *Sustainable and Unchallenged Algorithmic Tacit Collusion*, 17 NW. J. TECH. & INTELL. PROP. 217, 244 (2020).

140. Jeffrey R. Kling, Sendhil Mullainathan, Eldar Shafir, Lee C. Vermeulen & Marian V. Wrobel, *Comparison Friction: Experimental Evidence from Medicare Drug Plans*, 127 Q.J. ECON. 199, 201, 215 (2012).

141. Marianne Bertrand & Adair Morse, *Information Disclosure, Cognitive Biases, and Payday Borrowing*, 66 J. FIN. 1865, 1865 (2011) (reducing payday borrowing by 11% through disclosures in a field experiment).

142. Federico Rossi & Pradeep K. Chintagunta, *Price Transparency and Retail Prices: Evidence from Fuel Price Signs in the Italian Highway System*, 53 J. MKTG. RSCH. 407, 409 (2016); *see also* Ambarish Chandra & Mariano Tappata, *Consumer Search and Dynamic Price Dispersion: An Application to Gasoline Markets*, 42 RAND J. ECON. 681, 700 (2011) (estimating gasoline savings of 5% gained by better searching solely in a one-mile radius).

143. Ater & Rigbi, *supra* note 33.

144. *A Guide to U.S. Retail Pricing Laws and Regulations*, NAT'L INST. STANDARDS & TECH., https://www.nist.gov/pml/weights-and-measures/laws-and-regulations/retail-and-unit-pricing-laws [https://perma.cc/YDW9-N4ZP].

which items are cheapest without needing a calculator.[145] Studies suggest that consumers use these labels to save money in their purchase choices. Even a basic application of unit pricing led to 1% savings.[146] When combined with other tools for comparison, such as an education campaign, information on unit price disclosures have led to 10% to 13% savings.[147]

Another category aimed at improving the analysis of information focuses on the algorithms that increasingly direct people to their ultimate purchase. In one study with unusual access to internal company data, economists found that a subtle change to eBay's algorithm saved consumers 5% to 15% by returning lower-priced search results first.[148] Yet search results are almost entirely unregulated, and companies have an incentive to increase the prices that consumers pay.[149] It follows that laws pushing online marketplaces toward more helpful search results could bring consumers considerable savings.

This discussion should not be read to imply that consumer price laws are straightforward. Disclosures require careful design and measurement of results to avoid waste or even counterproductive effects.[150] These complications are described in greater depth below. Note, however, that the importance of design underscores how many of the above interventions could be improved, providing even greater price reductions. For instance, the 5% Medicare savings resulted from text inserted into a letter that many people presumably did not read. The researchers observed that, had all Medicare patients followed the advice, the average savings would have been 31%.[151] And while the Israeli statute produced results from mandating machine-readable disclosures, more active support for helpful digital

145. *Id.*

146. J. Edward Russo, *The Value of Unit Price Information*, 14 J. MKTG. RSCH. 193, 193–201 (1977).

147. Clinton S. Weeks, Gary Mortimer & Lionel Page, *Understanding How Consumer Education Impacts Shoppers Over Time: A Longitudinal Field Study of Unit Price Usage*, 32 J. RETAILING & CONSUMER SERVS. 198, 206 (2016) (using a field experiment to quantify the savings from educating consumers about unit prices); *see also* AUSTRALIAN COMPETITION & CONSUMER COMM'N, REPORT OF THE ACCC INQUIRY INTO THE COMPETITIVENESS OF RETAIL PRICES FOR STANDARD GROCERIES 449 (2008) (citing studies that show up to 1% savings across all consumers by improving existing unit pricing laws); James Binkley, *Prices Paid in Grocery Markets: Searching Across Stores and Brands*, 47 J. CONSUMER AFFS. 465, 466 (2013) (finding that improved price comparison approaches within stores led to up to 10% savings).

148. Michael Dinerstein, Liran Einav, Jonathan Levin & Neel Sundaresan, *Consumer Price Search and Platform Design in Internet Commerce*, 108 AM. ECON. REV. 1820, 1821 (2018).

149. More specifically, they have an interest in maximizing what people pay up to the point that those prices do not drive people to shop elsewhere. *See* Frank Pasquale, *Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines*, 2008 U. CHI. LEGAL F. 263, 267 (2008).

150. Ben-Shahar & Schneider, *supra* note 139, at 647, 651–65 (summarizing many failed attempts).

151. Jason T. Abaluck & Jonathan Gruber, *Choice Inconsistencies Among the Elderly: Evidence from Plan Choice in the Medicare Part D Program*, 101 AM. ECON. REV. 1180, 1189–92 (2011).

intermediaries that would analyze all available prices for the consumer could create more powerful shopping tools, putting even greater price pressure on sellers.[152] Thus, the empirical evidence suggests that price transparency laws can significantly lower prices in a variety of markets.

2. Removing Licensing Restrictions Can Lower Prices

Unlike price transparency and antitrust laws, addressing higher prices that result from governmental licensing requirements has a more straightforward legal solution: removal of the laws that require those licenses. The above studies estimating price increases suggest that the removal of inefficient occupational licensing laws, territorial restrictions for car dealerships, and zoning laws could significantly lower prices.[153] Indeed, some of that research goes beyond just estimating price increases by also modeling the effects of removing such laws.[154]

More direct evidence also comes from studies of licensing laws that have already been improved. For instance, in jurisdictions that expanded the role of nurse practitioners and allowed them to provide medical services previously only administered by doctors (albeit still supervised in a doctor's office), prices lowered an estimated 3% to 16%.[155] As another example, in 1983, Colorado lawmakers removed licensing requirements mandating that anyone offering funeral services graduate from a mortuary college, train for a year, and pass oral and written license examinations.[156] A comparison of the resulting prices in Colorado before and after the licensing removal found that the reforms lowered prices in Colorado by 15%.[157]

The removal of licensing laws has mixed effects on labor markets, as discussed below. For purposes of inflation, however, improvements to widespread licensing laws offer an opportunity to lower prices substantially.[158]

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152. For an exploration of such a proposal, see Van Loo, *supra* note 24, at 1387.

153. *See supra* Part I.

154. For instance, one study found that prices would decrease by 4.5% in a range of services if Arkansas lowered its occupational licensing restrictions to match those of neighboring Mississippi. THOMAS J. SNYDER, ARK. CTR. FOR RSCH. ECON., THE EFFECTS OF ARKANSAS' OCCUPATIONAL LICENSURE REGULATIONS 3 (2016), https://uca.edu/acre/files/2016/06/The-Effects-of-Arkansas-Occupational-Licensure-Regulations-by-Dr.-Thomas-Snyder.pdf [https://perma.cc/P2PT-2APS].

155. Kleiner et al., *supra* note 106, at 286.

156. Brandon Pizzola & Alexander Tabarrok, *Occupational Licensing Causes a Wage Premium: Evidence from a Natural Experiment in Colorado's Funeral Services Industry*, 50 INT'L REV. L. & ECON. 50, 52 (2017).

157. *See id.* at 53. Price differences in Colorado were compared with price changes over the same time period in other states that did not have such a removal. *Id.*

158. For a summary of this empirical literature, see *supra* Section II.A.

3. Antitrust Reforms Can Lower Prices

Unfortunately, there is limited evidence that speaks directly to the question of how antitrust reforms would work in the U.S. economy. A big part of the challenge is simply methodological. Changes to price transparency and licensing laws are more readily studied because they occur more frequently and offer researchers the ability to compare prices in a specific market before and after a statutory legal reform.[159] In contrast, new market-wide antitrust laws have been enacted less frequently. New policies have been implemented through ex-post law enforcement processes against individual firms, but it is difficult to measure the market-wide deterrence effects of such developments.[160] Consequently, there are simply fewer rigorous studies of antitrust law's ability to lower prices.

Although it is debatable what level of confidence can be had based on the existing evidence, a few studies speak to this fundamental question of antitrust effectiveness. Research from decades ago found that in the months and years after the filing of a successful price-fixing antitrust complaint, antitrust actions for price-fixing or collusion lowered prices by several percentage points.[161] If scholars are correct that most cartels go undetected,[162] these empirical studies suggest that finding a way to prosecute those cartels could rapidly lower prices.[163] Of course, this raises the question of whether adequate legal authority exists or could be enacted—a topic returned to below in the discussion of administrability. But for now the point is simply that there is empirical support for tentatively concluding that a stronger regime for addressing price-fixing could provide help with inflation.

Antitrust enforcers' ability to address industry concentration is less clear. Part of the problem is simply that the most powerful remedy—breaking up companies—is seldom applied in the United States, so there has been limited ability to study its price effects.[164] Moreover, many empirical

159. *See* Kleiner et al., *supra* note 106, at 286; *see* Pizzola & Tabarrok, *supra* note 156, at 53.

160. Gregory J. Werden, *Assessing the Effects of Antitrust Enforcement in the United States*, 156 DE ECONOMIST 433 (2008).

161. GEORGE J. STIGLER & JAMES K. KINDAHL, NAT'L BUREAU ECON. RSCH., THE BEHAVIOR OF INDUSTRIAL PRICES 92 (1970) (finding that commodities prices lowered between 0.7% and 2.4% three months after the complaint and from 2.2% to 4.4% in the nine months after the complaint). *But see* Michael F. Sproul, *Antitrust and Prices*, 101 J. POL. ECON. 741, 741 (1993) ("In a survey of 25 cases filed between 1973 and 1984, prices are found to gradually rise by about 7 percent over the 4 years following an indictment.").

162. Peter G. Bryant & E. Woodrow Eckard, *Price Fixing: The Probability of Getting Caught*, 73 REV. ECON. & STAT. 531, 535 (1991) (finding that only 13% to 17% of cartels are detected).

163. However, designing such a regime is complicated. *See* Leslie, *supra* note 126, at 1265 (proposing changes to the antitrust regime to allow for greater prosecution of price fixing); Sokol, *supra* note 126, at 848 (proposing stronger price-fixing enforcement through the use of corporate monitors); *infra* Part III.

164. *See* KWOKA, *supra* note 113, at 126–32. For a critique of the analytic approach to divestitures

studies of existing U.S. antitrust interventions tend not to quantify the price effects, presumably due to methodological difficulties.[165]

The most methodologically convincing study comes from the Netherlands, where a new law forced some owners to divest gas stations chosen at random.[166] It found that when concentrated gas stations were broken up, prices decreased from 1.3% to 2.3%.[167] Those findings come with the caveat that they do not reflect a large-scale organizational breakup. Instead, the study measured the effects of the forced sale of existing gas stations whose day-to-day operations presumably could remain uninterrupted.[168] Although these findings are limited in terms of magnitude and market applicability, they provide some cautious support for the possibility of using divestitures in at least some contexts to lower prices.

Finally, a newer wave of research has begun to look at the strength of the overall competition policy of a country in order to determine the effects of those policies on markets.[169] In one study, the antitrust regimes of large economies were evaluated in terms of factors such as the ability to impose significant penalties for violations, the level of investigative authority, and the intensity of oversight applied by enforcers.[170] Although this metric has limits, the study found that when countries weaken competition policies, average profits increase.[171] Another study estimated the impact of competition policy on market concentration.[172] It concluded that removing barriers to entry and blocking mergers lowered concentration levels.[173] These findings speak to the potential impact of competition policy on prices because higher concentration levels are associated with higher markups.[174]

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in the United States, see Van Loo, *supra* note 32, at 1955.

165. *See generally* BUREAU OF COMPETITION & BUREAU OF ECON., FED. TRADE COMM'N, THE FTC'S MERGER REMEDIES 2006–2012: A REPORT OF THE BUREAUS OF COMPETITION AND ECONOMICS (2017).

166. Adriaan R. Soetevent, Marco A. Haan & Pim Heijnen, *Do Auctions and Forced Divestitures Increase Competition? Evidence for Retail Gasoline Markets*, 62 J. INDUS. ECON. 467, 467–70 (2014).

167. *Id.* at 469.

168. *See id.*

169. *See* Amit Zac, Carola Casti, Christopher Decker & Ariel Ezrachi, Competition Policy and the Decline of the Labour Share 8 (Aug. 2, 2022) (unpublished manuscript), available at https://ssrn.com/abstract=3824115 [https://perma.cc/LG5W-PTHX] (summarizing the competition policy index and its usage); Pauline Affeldt, Tomaso Duso, Klaus Gugler & Joanna Piechucka, *Market Concentration in Europe: Evidence from Antitrust Markets* 26 (German Inst. for Econ. Rsch., Working Paper, Paper No. 1930, 2021), https://papers.ssrn.com/abstract=3775524 [https://perma.cc/BDZ5-42KQ] (measuring effects of past merger enforcement on market concentration).

170. Zac et al., *supra* note 169.

171. *See, e.g.*, *id.* at 28–29 (finding price and profits higher in low-competition policy index countries).

172. Affeldt et al., *supra* note 169, at 18 (describing study methodology).

173. *Id.* at 26.

174. De Loecker et al., *supra* note 22, at 598.

These findings are complicated by the debate about whether higher profits and margins are good or bad. Again, profits can increase for pro-competitive reasons, such as greater innovation.[175] Or rising profits and margins can reflect increased market power and lower productivity. The potential for high profits also provides motivation to innovate and invest.

In sum, although antitrust reforms overall have proved more difficult to study directly than price transparency and licensing reforms, there is some limited empirical support for concluding that stronger antitrust interventions can reduce prices. Due to the debates about the benefits and drawbacks of concentration, the least controversial antitrust reforms would be those aimed at undetected price-fixing and algorithmic collusion. The variability of options not only within antitrust but also among all market improvement laws speaks to the importance of a framework for deciding among anti-inflation policy tools.

III. DESIGNING ANTI-INFLATION LAWS

The preceding discussion has shown the theoretical and empirical foundations for using market improvement laws to address inflation. The evidence suggests that consumers face difficulties finding the best deals and that in many markets well-designed market improvement laws can lower the prices paid at magnitudes that would offset a meaningful amount of inflation. This Part offers a framework for choosing among anti-inflation policies. The goal is to comprehensively compare underappreciated microeconomic options, such as market improvement laws, to those more macroeconomic options that tend to be the default choice. It then sketches in greater detail what it would mean to integrate market improvement laws during an inflationary period.

A. A FRAMEWORK FOR CHOOSING INFLATION LAWS

Even after recognizing that market improvement laws have significant potential to lower prices, policymakers are faced with the task of deciding how to prioritize among the various anti-inflation laws. Yet in the rare academic discussions of how more microeconomic laws may address inflation, there is usually an absence of any framework for choosing among options.[176] The discussion above has indicated four key criteria that can be used to choose among policy options: direct magnitude, indirect structural

175. *See supra* Section II.A.3.

176. *See, e.g.*, Handler, *supra* note 13 (considering the role of antitrust in inflation without clarifying a framework for making such a choice); Aneil Kovvali, *Countercyclical Corporate Governance*, 101 N.C. L. Rev. 141 (2022) (offering a framework for incorporating inflation and other macroeconomic considerations into corporate governance but not for choosing among responses to inflation).

support, administrability, and side effects. Analytic shifts in applying these criteria would help to better incorporate microeconomic laws into inflation.

1. Direct Magnitude

The direct magnitude refers to the percentage of reduction in inflation as an immediate consequence of the policy. At first glance, this is one metric on which market improvement laws come up short compared to macroeconomic tools such as interest rate hikes. In theory, the Federal Reserve could raise interest rates from its current level of roughly 2% to something dramatically higher, like 40%, to tame high levels of inflation.[177] Similarly, in a command-and-control economy, price controls can dictate the level of inflation and thereby, in theory, reduce fifty points of inflation or more.[178]

In contrast, market improvement laws have built-in limits to their impact on prices because businesses can only lower prices so far before operating at a loss.[179] Additionally, there is great variability in the magnitude of price decreases from market improvement laws across industries,[180] making it difficult to know the precise magnitude achievable across the entire economy.

One caveat is in order when comparing magnitude. Any such analysis must consider practical institutional limits. For instance, interest rates can only be raised to certain levels before the costs (especially low growth and unemployment) become too high to push further. Consequently, the various criteria for anti-inflation laws influence one another. In this case, the criterion of direct magnitude interacts with negative side effects, which can limit the practical magnitude of an anti-inflation tool.

Nonetheless, putting other criteria aside for now, there is reason to think that the direct magnitude of market improvement laws has been underestimated. This underestimation illuminates how an anti-inflation framework should analyze magnitude. Relevant academic and policy conversations have focused on antitrust.[181] Yet among the three major areas of market improvement laws, antitrust offers the most limited empirical support for concluding that there is a possibility of high magnitude.[182] In aggregate, the market improvement laws discussed herein have a much larger potential total anti-inflation magnitude than antitrust alone.

177. *See* Rubin, *supra* note 30.
178. There are, of course, practical constraints that will be discussed below.
179. *See supra* Part I.
180. *See supra* Part II.
181. *See supra* Part I.
182. *See supra* Part II.

The broader point here is that a siloed approach to considering microeconomic laws has weakened analyses of anti-inflation laws' direct magnitude. With respect to market improvement laws, the analysis of antitrust law's magnitude in isolation, without considering related areas of law, obscures the relevance of market failures to inflation. For a comprehensive estimate of the direct magnitude of anti-inflation policies, it will sometimes be necessary to combine various areas of law that are united by a common economic frame.

Moreover, academics and policymakers may have underappreciated market improvement laws' direct magnitude even within some of the three areas of law discussed herein. Studies of market improvement laws are often scattered among various markets, such as gasoline, food, and cell phone plans.[183] These individual microeconomic studies do not immediately provide macroeconomic magnitudes. To conceptualize the magnitude of a specific type of reform, such as price transparency laws, observers must synthesize various micro-level empirical studies into a macro-level magnitude.

Thus, research silos for different areas of law and diverse markets must be overcome to obtain a more comprehensive sense of the potential direct magnitude of anti-inflation laws. Only then can policymakers and scholars form an accurate sense of whether market policies are worth being in the conversation about fighting inflation.

2. Indirect Structural Support

The direct magnitude analysis discussed above is not by itself sufficient to understand the full contributions that an anti-inflation policy has to offer. Some policies, like market improvement laws, have the potential to provide indirect support to other anti-inflation laws.[184] That complementary role must also be weighed.

As mentioned above, structural solutions to inflation (such as ending China's COVID lockdown) may not work unless consumers have the capacity and motivation to effectively compare prices. Price transparency is thus crucial for helping ensure that structural solutions, like repairing the supply chain, swiftly impact prices paid. This complementary role in addressing inflation constitutes the second criteria in this Article's framework: indirect structural support.

The indirect structural support provided by other anti-inflation tools is

183. *See supra* Part II.
184. *See supra* Section I.C.

less clear. In theory, antitrust enforcement and licensing reforms should also indirectly help other interventions because competitive pressures would push companies to pass on any sudden supply-chain savings to customers. However, there is some limited evidence that oligopolies may be quicker than firms in more competitive industries to pass on later cost-savings to consumers.[185] If that research is correct, antitrust would provide less indirect structural support for anti-inflation than price transparency laws. Nor do price controls and interest rates offer such indirect support that make it more likely that direct solutions will work.

Consequently, the failure to consider the indirect ways that anti-inflation laws may operate can distort the design of the policy response. In particular, a failure to consider this criterion biases the choice away from price transparency laws. Another way of thinking about structural support is as contributing to a more comprehensive picture of the full magnitude of the policy response.

3. Administrability

Administrability refers to the feasibility of effectively implementing a policy. Anti-inflation policies would ideally not only lower prices, but do so reasonably rapidly and with some degree of confidence. At first glance, these considerations cast doubt on at least some types of market improvement laws, since many of those reforms come with the risk of failure—especially antitrust laws and poorly designed disclosure mandates.[186] Additionally, market improvement laws involve decisions by various regulators, judges, and attorneys general. The dispersed nature of that implementation creates administrability challenges. Economists studying inflation have assumed that antitrust reforms take years to affect prices.[187] Whether those

185. Adriaan Ten Kate & Gunnar Niels, *To What Extent are Cost Savings Passed on to Consumers? An Oligopoly Approach*, 20 EUR. J. L. & ECON. 323, 324 (2005) ("In oligopoly it turns out to be exactly the other way round. When competition is strong individual firms are price takers and do not pass on their firm-specific cost savings to price; when competition is weak individual firms have more influence on price and tend to pass on their cost savings to a greater extent."). It seems counterintuitive at first that oligopolies would be more likely to pass on cost savings. One possible explanation is that oligopolies do not need inflation to charge higher prices because their market power in normal times allows them to do already charge closer to the profit-maximizing price. A monopoly at some point will not want to charge higher prices because higher prices decrease demand, and at a certain point the higher price brings less profits. In contrast, firms in less concentrated industries have a harder time raising prices in normal times and thus may be less interested in giving up those higher prices if they can avoid doing so.

186. The extent to which established interventions from one market will work in a different market is especially uncertain.

187. *See, e.g.*, David Brancaccio & Jarrett Dang, *Another Cure for Inflation? Making Markets More Competitive*, MARKETPLACE (Apr. 1, 2022), https://www.marketplace.org/2022/04/01/another-cure-for-inflation-making-markets-more-competitive [https://perma.cc/XE6W-GKKP] (quoting David Brancaccio as observing that with competition policies, "we'd be talking several years before that might impact prices").

perspectives are correct is subject to debate and will be returned to shortly, but it is necessary to recognize that the general perception has been that market improvement laws are low on administrability.

In contrast, policymakers are more likely to feel confident that raising interest rates will lower inflation because this tool has been used repeatedly for that purpose in the past.[188] It is also institutionally straightforward to implement—requiring a single administrative agency, the Federal Reserve, to make a single decision. Strictly enforcing price caps can also immediately lower the prices that consumers pay, although this is more institutionally complicated because it mostly requires the passage of legislation.[189]

While these advantages to interest rates and price caps are real, they should not be exaggerated. The political response to interest rates and price controls adds unpredictability, as backlash may ensue from their potentially devastating economic side effects. That backlash may get in the way of interest rate reductions' ability to fully address inflation.

The direct magnitude of inflation reduced by interest rate hikes is also difficult to know in advance due to macroeconomic conditions that differ from those in previous inflationary periods.[190] Additionally, it typically takes a year before interest rates meaningfully hit inflation, with peak impact occurring at close to two years.[191] Price controls can have a more immediate impact on prices, but they are extremely difficult to administer beyond the short term, making their sustained effectiveness uncertain.[192] Thus, the Federal Reserve's raising of interest rates comes with considerable administrability challenges.

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188. *See* ROBERT L. HETZEL, THE MONETARY POLICY OF THE FEDERAL RESERVE: A HISTORY 204 (Michael D. Bordo, Marc Flandreau, Chris Meissner, François Velde & David C. Wheelock eds., 2008); Jeffery Schaff & Michele Schaff, *Expert's Corner: Municipal Bond Market Improprieties and the Potential Brutality of Investing in Bonds*, 11 PIABA B.J. 56, 62 (2004) ("Alan Greenspan has repeatedly testified that the Federal Reserve is in the process of raising interest rates in an effort to stave off inflation.").

189. *See supra* Section I.B.

190. There is also some broader controversy about how inflation interacts with interest rates. *See* Mishkin, *supra* note 47, at 213 ("[T]he apparent ability of short-term interest rates to forecast inflation in the postwar United States is spurious."); John H. Cochrane, Do Higher Interest Rates Raise or Lower Inflation? 66 (Feb. 10, 2016) (unpublished manuscript) (on file with the University of Chicago Becker Friedman Institute), https://bfi.uchicago.edu/wp-content/uploads/fisher.pdf [https://perma.cc/JN9F-GSEG] ("A review of the empirical evidence finds very weak support for the standard theoretical view that raising interest rates lowers inflation, and much of that evidence is colored by the imposition of strong priors of that sign. I conclude that a positive reaction of inflation to interest rate changes is a possibility we, and central bankers, ought to begin to take seriously.").

191. *See, e.g.*, Tomas Havranek & Marek Rusnak, *Transmission Lags of Monetary Policy: A Meta-Analysis*, 33 INT'L J. CENT. BANKING 39, 57 tbl.6 (2013) (finding an average time lag of twenty-three months for the full decrease in prices to arrive); Alvarez et al., *supra* note 111, at 947–49 (referencing the delayed impact).

192. FRIEDMAN, *supra* note 45, at 135.

Moreover, differences in administrability are difficult to compare rigorously. Some market improvement laws have been found to lower prices considerably in specific markets.[193] They can also do so on a relatively short timeline, with one field experiment finding that consumer education campaigns lowered prices paid by about 17% to 18% within six weeks.[194] In the aforementioned study of the Israeli statute that required price transparency for grocery stores, the researchers found that prices had begun to decline within eight months, and the full price effects of 4% to 5% happened within two years.[195] For a full sense of the timeline for new legislation, it is necessary to also add the time needed to write and pass a bill, although that can happen rapidly if lawmakers feel sufficient pressure. Other avenues offer a shorter timeline for an impact on consumer prices, such as administrative agencies or attorneys general enforcing current laws more aggressively.[196]

Antitrust faces more significant administrability challenges than price transparency laws. Even assuming that industry concentration anticompetitively contributes to high prices, it is not clear what can be done about that on a short timeframe. Breaking up large companies would be the most direct response, but breakups take years and cost billions of dollars to implement.[197] As a result, even a successful breakup could increase prices in the short term and may require years to lower prices. Moreover, antitrust enforcers can only prosecute a small number of cases at any time and must act against individual firms, meaning that it could take decades to go through all the major industries and bring cases against individual companies.[198] If economists are right that some portion of rising markups is due to arguably pro-competitive factors, the identification of targets comes with the additional risk of possibly undermining consumers' interests. Discouraging cartels and collusion is not without its challenges, but it would not come with the same level of concerns about deterring productive behavior.[199] Importantly, price-fixing enforcement could produce faster price reductions

193. *See supra* Part II.

194. *See* Weeks et al., *supra* note 147, at 206 (observing that these peak savings six weeks after the unit pricing materials were sent and that the savings declined to 11% to 13% by the end of the study at 20 weeks).

195. Ater & Rigbi, *supra* note 33, at 3.

196. *See infra* Section III.B.2.

197. Van Loo, *supra* note 32, at 1986.

198. *See* Alex Kantrowitz, *'It's Ridiculous.' Underfunded FTC and DOJ Can't Keep Fighting the Tech Giants Like This*, SUBSTACK (Sept. 17, 2020), https://bigtechnology.substack.com/p/its-ridiculous-underfunded-us-regulators [https://perma.cc/V5F5-63XP] (citing former FTC policy director Justin Brookman).

199. For scholars' proposals to address this limitation, see *infra* Section III.B.

within a few months of the announcement of initiating the case.[200]

Perhaps the most straightforward market improvement reform in terms of design is the removal of existing licensing laws. Whatever law that was passed can simply be repealed. However, even repeals ideally would be implemented in a thoughtful manner to preserve any valuable consumer protections. Because most licensing laws are at the state or local level, there is a complicated legislative and judicial path to reforming such laws in a systematic manner.[201] Legal avenues for challenging governmental licensing regimes may also exist, though they are uncertain.[202]

Overall, the criterion of administrability disfavors market improvement laws as a tool for fighting inflation to varying degrees depending on the subcategory. But it is important not to exaggerate the administrability challenges of market improvement laws compared to interest rates and price caps. Once a broader view is taken on administrability, interest rate increases also entail institutional difficulties. It is also not clear why administrability should receive greater weight than other criteria, like side effects.

4. Side Effects

Before selecting an anti-inflation policy, its side effects must be closely considered. This criterion has traditionally focused only on the economic sacrifices that must be made to control inflation.[203] That focus makes more sense in a world in which markets are as close to perfection as possible, since

200. *See* STIGLER & KINDAHL, *supra* note 161.

201. Aaron Edlin and Rebecca Haw originally argued this, and the Supreme Court ultimately confirmed in part. *See* Edlin & Haw, *supra* note 82, at 1099, 1100 (proposing "competitor-dominated boards that regulate their own competition and the entry of competitors . . . be treated as private actors and subject to antitrust review unless their acts are both (1) pursuant to the state's clearly articulated purpose to displace competition and (2) subject to active state supervision"); N.C. State Bd. Of Dental Exam'r v. F.T.C., 574 U.S. 494, 495–96 (2015) (holding that state licensing boards were not immune from antitrust laws and explaining that for a licensing board to be immune from federal antitrust law, its anticompetitive conduct must be " 'clearly articulated and affirmatively expressed as state policy' " and the policy must be " 'actively supervised by the state' " (quoting FTC v. Phoebe Putney Health Sys., Inc., 568 U.S. 216, 225 (2013))); Rebecca Haw Allensworth, *Foxes at the Henhouse: Occupational Licensing Boards Up Close*, 105 CAL. L. REV. 1567, 1579 (2017) ("Since the Court's decision in *North Carolina Dental*, issued in February 2015, over a dozen suits have been filed against state licensing boards alleging Sherman Act violations and arguing that the board is not subject to state action immunity."); Daniel A. Crane, *Tesla, Dealer Franchise Laws, and the Politics of Crony Capitalism*, 101 IOWA L. REV. 573, 602 (2016) ("Antitrust law . . . is unavailable because of the *Parker* state action doctrine, which permits states to enact even nakedly anticompetitive legislation so long as the anticompetitive policy is clearly and affirmatively expressed as state policy and actively supervised by the state.").

202. *Cf.* Paul J. Larkin, Jr., *Public Choice Theory and Occupational Licensing*, 39 HARV. J.L. & PUB. POL'Y 209, 284 (2015) ("[S]ome federal courts have relied on the Equal Protection (or Due Process) Clause to hold unconstitutional state laws that unreasonably restrict access into certain professions.").

203. *See, e.g.*, Robert J. Gordon, *The Phillips Curve Now and Then* 7 (Nat'l Bureau of Econ. Rsch., Working Paper No. 3393, 1990), https://ssrn.com/abstract=1806849 [https://perma.cc/242X-TZ5A] (discussing the use of a sacrifice ratio in analyzing inflation policies).

every major anti-inflation intervention would then be expected to distort markets away from the current level of near perfection. However, as detailed above, assumptions about markets being as efficient as possible are disconnected from the evidence of market failure across the economy. Moreover, the consequence of overlooking the possibility of beneficial side effects is to disfavor market improvement laws because beneficial side effects is the strongest reason to favor market improvement laws over alternatives.

As discussed above, significant interest rate hikes raise the risks of a recession and increased unemployment. Price caps come with the risk of harming efficiency and discouraging innovation.[204] In contrast, transparency laws, the removal of licensing restrictions, and antitrust move the economy toward greater efficiency, growth, and innovation.[205]

This is not to say that market improvement laws are without negative side effects. Price transparency laws impose compliance costs on businesses. The impact of such costs must always be considered and mitigated as much as possible. However, all regulations inevitably have costs. Therefore, the existence of costs alone cannot determine whether a regulation is warranted. Those costs must be weighed against the benefits. Supplying customers with helpful information is a standard component of transacting that has long been expected in markets.[206] It is thus consistent with basic market functions to expect actors to inform the parties with whom they transact. Since inflation is economically destructive, and given the efficiency gains of consumers making more informed decisions, the costs of complying with regulations should not defeat a proposal for effective price transparency laws that would correct significant market failures.

Beyond the costs of complying with any given legal rule, there is also a risk of designing the policy intervention in a way that unintentionally harms the market. In particular, blocking a beneficial merger or breaking up an efficient company could lead to higher prices. This is where the existing research on what has worked in the past can help to prioritize and inform anti-inflation laws.[207]

The removal of licensing laws comes with likely more controversial side effects than price transparency and antitrust laws. One of the risks of removing these laws is less consumer protection. To mitigate this, the

204. *See supra* Section I.A. Space constraints do not allow for reexamining this assumption, though it merits greater attention than this brief treatment provides.

205. *See supra* Part I.

206. *See, e.g.*, N. GREGORY MANKIW, PRINCIPLES OF ECONOMICS 66–67 (6th ed. 2012) (discussing the basic function of information in markets).

207. For some of this evidence, see *supra* Section II.B.

reforms could replace licensing with optional certification. Consumers could then choose to pay more for the certified services if they would like, such as for hair salons or funeral services. Low-income consumers who otherwise might not be able to afford services would then still have the option of lower price points. Moreover, those lower-priced offerings would put some price pressure on the certified services.[208] Additionally, Yelp and other rating websites can mitigate the risk that removing licensing leads to worse quality because they can provide some reputational accountability.[209] Finally, it is worth noting that in many contexts, the consumer protection implications of removing licensing will not be significant. For example, seven years after the state legislature had delicensed funeral services, the Colorado Department of Regulatory Agencies investigated the impact on customers and found that the "[c]laims that the public in Colorado had suffered or might suffer significant detriment due to a lack of trained mortuary science practitioners . . . were unsupported."[210]

The removal of occupational licensing also has a complex mix of employment results. Removal should normally decrease wages because more people could enter the occupation, while also increasing the number of jobs, especially for low-income and immigrant workers who might not be able to access or afford the expensive training often required to satisfy licensing requirements.[211]

In summary, the removal of occupational licensing would improve market efficiency and expand employment, but it could lower some consumer protection and wages. The price savings to consumers, increase in aggregate wealth, and job creation make these side effects overall positive. Consequently, the removal of licensing has more appealing economic side effects than raising interest rates, which has overwhelmingly negative side effects.[212] But occupational licensing improvements offer more mixed side effects than antitrust and price transparency improvements, which bring overwhelmingly positive side effects. More broadly, the anti-inflation

208. On mitigating the harmful effects of removing occupational licensing, see Caleb R. Trotter, *Exhuming the Privileges or Immunities Clause to Bury Rational-Basis Review*, 60 LOY. L. REV. 909, 958 (2014).

209. *Id.* at 945. On the benefits and drawbacks of reputational mechanisms, see Yonathan A. Arbel, *Reputation Failure: The Limits of Market Discipline in Consumer Markets*, 54 WAKE FOREST L. REV. 1239, 1240–46 (2019).

210. OFF. OF POL'Y, RSCH. & REGUL. REFORM, COLO. DEP'T OF REGUL. AGENCIES, 2007 SUNRISE REVIEW: FUNERAL SERVICE PRACTITIONERS 16 (2007), https://ij.org/wp-content/uploads/2022/02/sunrise/Colorado_2007_FuneralServicePractitioners.pdf [https://perma.cc/375T-DWQ9].

211. *See* SNYDER, *supra* note 154, at 21–22; Hugh Cassidy & Tennecia Dacass, *Occupational Licensing and Immigrants*, 64 J.L. & ECON. 1, 1 (2021) (finding that language and other obstacles mean that immigrants are less likely to seek out and obtain occupational licenses).

212. *See supra* Section I.A.

analysis should comprehensively weigh the full positive and negative side effects in choosing anti-inflation policies.

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Given that no policy is superior with respect to all four criteria, the task becomes how to balance the criteria. Two considerations will prove helpful. First, it is important not to let administrability and direct magnitude alone outweigh all other criteria. Yet that appears to be the traditional approach to inflation. To ignore indirect structural support and side effects risks missing more subtle impacts of policies on inflation and the economy.

Second, even if policymakers were to decide that administrability and magnitude were the most important criteria, it would be a mistake to discard other policy options. An anti-inflation toolkit can deploy multiple tools. That is particularly true because interest rates do not require legislative involvement and can be adjusted rapidly. Thus, legislatures and regulators can work to design and implement price transparency, antitrust, and licensing solutions while the Federal Reserve adjusts interest rates. Any portion of prices driven down by market improvement laws could later prevent some portion of interest rate increases and their side harms, while also making it more likely that some of the main structural solutions to inflation actually work.

In short, once the criteria of direct magnitude, indirect structural support, administrability, and side effects are all fully considered, policymakers would be hard-pressed to find a more promising area than market improvement laws, especially price transparency, to mobilize against inflation. Table 1 provides a summary of how these criteria might apply to various policies to offer a working hypothesis and illustrate this framework. The most important conceptual takeaway is that anti-inflation analyses have historically paid too little attention to the possibility that there are options that bring positive side effects. Regardless of the magnitude, policymakers should do as much as possible with laws offering side benefits to minimize the need to use those with side costs.

TABLE 1. Level of Attractiveness for Fighting Inflation

	Direct Magnitude	*Structural Support*	*Admin-istrability*	*Side Effects*
Interest rates	High	Low	High-Medium	Low
Price Controls	High	Low	Low	Low
Antitrust: Breakups	Low	Medium-Low	Low	High
Antitrust: Price-fixing	Medium	Medium-Low	Medium	High
Occupational Licensing	Medium	Low	Medium	High-Medium
Price Transparency	Medium	High-Medium	Medium	High

Notes: This table is meant to summarize parts of the discussion from this section and to illustrate how the framework might be applied, rather than to suggest a definitive account. Of course, more sustained analysis of each of these determinations would be warranted, and judgment calls in such an exercise are inevitable

B. INTEGRATING MARKET IMPROVEMENT LAWS INTO INFLATION POLICY

Recognizing that an area of law should become a higher priority in an inflationary period is an important conceptual step. However, deploying nontraditional anti-inflation tools poses a challenge of designing the institutional integration of market improvement laws into inflation policymaking. There are essentially two ways to go about this: creating new authority and changing the way existing authority is exercised. The most powerful method would be to create new authority. Most importantly, those developing responses to inflation—especially lawmakers—should create new legal rules. However, even without any new rules, a variety of existing actors can still have a potentially meaningful impact by changing how they exercise existing authority. The discussion that follows focuses on the subset of market laws that seem most immediately promising—price transparency laws—but situates such reforms within a more comprehensive market improvement strategy.

1. Creating New Laws

The review of the evidence above suggests that new legal rules can push prices down. Accordingly, a straightforward way to integrate market improvement laws into inflation policy would be to create legal rules that would help consumers to obtain and analyze pricing information, remove unhelpful licensing, and strengthen antitrust. It bears emphasis that state legislatures have passed many price transparency, antitrust, and licensing laws.[213] Thus, meaningful legislative solutions need not wait for Congress.

In terms of institutional design, it would be suboptimal for lawmakers to take the lead on writing all such legal rules. Given legislatures' limited expertise, as well as the general challenges of passing laws at the federal level and in many states, it would be preferable for an administrative agency to be empowered to study and enact market correction rules. The FTC is the logical choice among existing agencies. It has a Bureau of Economics that can research and study the price effects, a Bureau of Consumer Protection that understands consumer laws, and a Bureau of Competition that enforces antitrust.[214] Yet the FTC has limited rulemaking authority related to market improvement laws.[215]

Therefore, Congress should empower the FTC and other administrative agencies to write new market correction laws, even if only on a temporary basis until inflation subsides.[216] The highest-priority legislation, and probably the most politically viable, would be something like a Price Transparency Act. The act would focus on giving consumers—and the digital intermediaries that help them—the tools they need to easily locate the best deals. Such an act has potentially widespread intellectual appeal because it leverages what is known as "regulation for conservatives," or behavioral interventions that would still allow businesses and consumers to do what they want, rather than prohibiting certain practices.[217] Administrative agencies, such as the Consumer Financial Protection Bureau and the FTC, would then ideally study and write any new rules not specifically outlined in the statute.

To decide which of many possible market improvement laws to pursue,

213. *See supra* Section II.B.

214. *See Bureaus & Offices*, FED. TRADE COMM'N, https://www.ftc.gov/about-ftc/bureaus-offices [https://perma.cc/Y2WP-8KZ9].

215. *See* Rohit Chopra & Samuel A.A. Levine, *The Case for Resurrecting the FTC Act's Penalty Offense Authority*, 170 U. PA. L. REV. 71, 74–75 (2021).

216. On the possibility of time-limited authority, see *infra* Section III.B.3.

217. *See* Colin Camerer, Samuel Issacharoff, George Loewenstein, Ted O'Donoghue & Matthew Rabin, *Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism,"* 151 U. PA. L. REV. 1211, 1212 (2003).

policymakers can apply the criteria of direct magnitude, indirect structural support, administrability, and side effects. They should prioritize those laws that have the strongest empirical support based on legislation enacted in other countries or in U.S. states. They can also ask what interventions have worked in some contexts, such as mandating price disclosures in grocery stores, that may be worth trying in other contexts, like auto dealerships.

This prioritization analysis involves not just asking what types of law are most appealing, but also which markets. In real terms, a dollar saved in gas purchases is no different from a dollar saved in dry cleaning, but they are potentially different in terms of inflation. To elaborate, consider how the price of gasoline per gallon has a disproportionate impact on people's perceptions of inflation.[218] That is the case because gasoline prices are visible on billboards, regularly paid by much of the population, and frequently reported in the media.[219] In reality, gasoline price-changes overall contribute little to inflation because they are a small part of overall consumer spending.[220] However, because expectations of inflation can lead to actual inflation, pushing down gasoline prices can disproportionately help with lessening a direct cause of inflation. Consequently, if gas prices are elevated in ways that price transparency laws might address, devoting more resources to transparency rules for gas prices would disproportionately help manage perceptions of inflation when compared with the impacts of devoting similar resources to industries that have a weaker psychological connection to inflation. Other products with outsized influence on the perception of inflation, albeit to a lesser extent than gasoline, are food and clothing.[221] Targeting these industries would be one way to implement a policy strategically designed to address the psychological side of inflation.

Space constraints do not allow for identifying each of the many specific legal rules that might be enacted, whether individually or under a broad Price Transparency Act. But the review of the literature above offers many promising concrete examples. Those include the kind of price transparency laws that have been demonstrated to work elsewhere, such as the Israeli grocery store statute aimed at digital intermediaries and the Italian Parliament's mandate of gas price billboards.[222]

Lawmakers should not, however, limit themselves to those laws that

218. Ariel Shwayder, Inflation Expectations and Gasoline Prices 1 (July 28, 2016) (unpublished manuscript), https://papers.ssrn.com/abstract=4131600 [https://perma.cc/SLB9-9BPZ].

219. *See id.* at 3.

220. *See id.* at 47. Of course, energy prices overall can influence a broader array of areas of spending.

221. *See id.*

222. *See supra* Section II.B.1.

have already been implemented somewhere else. They can also look to promising proposals in each area of market improvement laws. In the past, legal scholars have proposed the types of laws that legislatures subsequently implemented to lower prices. For instance, before the Israeli legislature passed the grocery store disclosure law that ultimately lowered prices, Oren Bar-Gill had in other markets proposed "smart disclosures" that consumers could share with third-party intermediaries.[223]

With the right political will, more aggressive reform would be warranted. For instance, it would be worthwhile to prohibit some specific manipulative practices, such as teaser rates for credit cards, as proposed by Ryan Bubb and Bar-Gill.[224] Legislatures could also roll back the more unreasonable licensing regimes, as proposed by David Hyman and Shirley Svorny.[225]

Although antitrust may be less appealing as an anti-inflation tool, scholars have identified numerous antitrust reforms that are worth considering. Since price-fixing is one of the more attractive areas in terms of the inflation criteria, new legislation might target such practices, particularly those resulting from algorithmic coordination. One noteworthy proposal is Michal Gal's idea of fighting companies' algorithms with algorithms that would alert regulators to violations or help consumers exert pricing pressure on sellers.[226] D. Daniel Sokol has proposed leniency programs and corporate monitors for addressing cartels, while Christopher Leslie sees the legal standard of proof as currently too difficult.[227] A number of other proposals have been made, including Einer Elhauge's call for cracking down on potentially anticompetitive ownership structures, such as the same mutual funds owning large portions of competing firms.[228] These examples are meant to sketch the landscape of reforms to consider, rather than to serve as

223. *See, e.g.*, Bar-Gill & Stone, *supra* note 10, at 454–55 (proposing that cell phone companies make personal usage data available to the customer in machine-readable form). My subsequent proposal then built on Bar-Gill's work to propose disclosures targeted at digital intermediaries in retail goods, more in line with the eventual Israeli legislation. *See* Van Loo, *supra* note 24, at 1387.

224. *See* Bar-Gill & Bubb, *supra* note 90, at 1001–02.

225. David A. Hyman & Shirley Svorny, *If Professions Are Just "Cartels by Another Name," What Should We Do About It?*, 163 U. PA. L. REV. ONLINE 101, 119 (2014) ("[L]egislatures should roll back the existing licensing infrastructure, either by affirmatively eliminating existing licensing boards or by sunsetting them and forcing the affected providers to periodically persuade a majority of the legislature that licensure is deserved.").

226. *See, e.g.*, Michal S. Gal, *Limiting Algorithmic Coordination*, 38 BERKELEY TECH. L. REV. (forthcoming 2023) (manuscript at 3, 5, 36), https://papers.ssrn.com/abstract=4063081 [https://perma.cc/UAT9-CELV].

227. *See* Sokol, *supra* note 126, at 848; Leslie, *supra* note 126, at 1265.

228. *See* Elhauge, *supra* note 10, at 1316–17 (concluding that horizontal shareholdings' "harmful economic effects could and should be reduced by using current antitrust law to challenge stock acquisitions that create anticompetitive horizontal shareholdings").

endorsements of particular proposals.

Of course, the weaker the evidence supporting a proposal, the lower priority that proposal is for policymakers. Particularly with many antitrust proposals, the strongest support lies in theory, rather than empirics. For these types of proposals, it would be particularly important to study their impact after they are implemented, perhaps with a sunset provision requiring the new rule to be reexamined empirically and reauthorized based on that evidence after a certain number of years. Although there will often be uncertainty due to limits on what is known, in many of these cases, the obstacle seems to be politics rather than knowledge.[229]

2. Exercising Existing Authority More Aggressively

Many legal actors could shift their priorities, or change their legal decisions, in ways that have the potential to bring down prices. These actors include attorneys general, administrative agencies, and judges.

Consumer law scholars have shown how a variety of regulations in all fifty states, and at the federal level, could discourage the kinds of pricing obfuscation practices outlined above. One move would be for attorneys general, private plaintiffs, and the FTC to more aggressively exercise the Unfair or Deceptive Acts and Practices ("UDAP") authority that exists at the state and federal level.[230] I and others have argued that UDAP authority would likely reach the kinds of behavioral pricing practices outlined above.[231] Since UDAP authority comes with doctrinal uncertainty, another possibility lies in simply devoting more energy to enforcing laws that clearly prohibit specific pricing practices. For instance, David Friedman has documented how retailers systematically fabricate a high price and then claim to discount it in order to make it look like a bargain.[232] They do this despite the fact that such practices are illegal.[233] Attorneys general, administrative agencies, and sometimes private plaintiff-side attorneys could simply devote greater attention to an array of existing laws that promote price transparency.

Judges and enforcers also have some discretion to expand existing

229. *See infra* Section III.C (discussing political economy constraints).

230. 15 U.S.C. § 45(a)(1).

231. *See* Van Loo, *supra* note 24, at 1365; Lauren E. Willis, *Deception by Design*, 34 HARV. J.L. & TECH. 115, 178 (2020). For a historical treatment of UDAP authority, see Luke Herrine, *The Folklore of Unfairness*, 96 N.Y.U. L. REV. 431, 526–28 (2021). I have previously argued that UDAP authority can likely reach practices designed to promote fair dealing, but various legal actors have retreated from exercising that authority due to industry lobbying. *See* Van Loo, *supra* note 24, at 1362.

232. David Adam Friedman, *Reconsidering Fictitious Pricing*, 100 MINN. L. REV. 921, 922–23 (2016).

233. *See id.*

antitrust laws. Some existing proposals would directly target practices that have a well-documented and significant impact on high prices. As one example, to address pharmaceutical companies' tactic of paying to delay competitive, generic entries, Scott Hemphill argued that such agreements should be "accorded a presumption of illegality as unreasonable restraints of trade."[234] Judges face expertise limits in determining which laws are worth expanding for inflation-fighting purposes, but in most of these instances, judges would need only devote more attention and resources to determining the microeconomic cases that would lower prices while increasing consumer welfare.

Other antitrust proposals would target anticompetitive behavior more broadly. Fiona Scott Morton and Jonathan Baker argue that online platforms violate antitrust laws when their contracts favor certain partners.[235] Tim Wu and Hemphill have called for judges to shift their thinking on firms' "parallel exclusion" tactics, such as when Visa and Mastercard adopted rules that served to block American Express from dealing with banks.[236] Additionally, Christopher Leslie has shown that "despite the fact that direct evidence of collusion is rarely available, federal judges have made it harder to prove collusion . . . by effectively requiring direct evidence."[237]

As discussed above, more structural interventions, such as breaking up large firms, may not produce price results fast enough to warrant high priority. But if antitrust enforcers credibly signal that they are willing to break up firms that engage in anticompetitive pricing, or even begin to take such actions, it is possible that the threat could immediately exert downward pressure on firms fearing they will be targeted for such enforcement actions.[238] Additionally, whereas other interventions would have more immediate price effects, a few targeted breakups or other significant antitrust remedies in major industries might bring price relief years down the line, after faster market improvement laws had reached their limits. Breakups could thereby be part of a more sustained anti-inflation strategy based on

234. C. Scott Hemphill, *Paying for Delay: Pharmaceutical Patent Settlement as a Regulatory Design Problem*, 81 N.Y.U. L. REV. 1553, 1615 (2006).

235. Jonathan B. Baker & Fiona Scott Morton, *Antitrust Enforcement Against Platform MFNs*, 127 YALE L.J. 2176, 2176 (2018) ("Antitrust enforcement against anticompetitive platform most favored nations (MFN) provisions . . . can help protect competition in online markets.").

236. C. Scott Hemphill & Tim Wu, *Parallel Exclusion*, 122 YALE L.J. 1182, 1192, 1251 (2013) ("We reject this line of cases."); *see also* John B. Kirkwood, *Tech Giant Exclusion*, 74 FLA. L. REV. 63, 63 (2022) ("Congress should instead amend the Sherman Act to prohibit exclusionary conduct that significantly reduces competition, whether or not it results in actual or probable monopoly power.").

237. Leslie, *supra* note 126, at 1235.

238. *Cf.* Jo Seldeslachts, Joseph A. Clougherty & Pedro Pita Barros, *Settle for Now but Block for Tomorrow: The Deterrence Effects of Merger Policy Tools*, 52 J.L. & ECON. 607, 630 (2009) (finding a deterrence effect from blocked mergers but not settlement agreements).

market improvements.

To be clear, legislation would be more likely to have an immediate, sustained, and economy-wide impact on collusion and other problematic behavior than solely increased enforcement of existing authority. But progress is also possible if key legal actors, especially judges, simply update their outdated decisions in accordance with market developments and advances in economic research.[239]

It is also worth noting that in the absence of any legislative action at the state or federal level, some limited new legal rules, or at least policies, are still possible through administrative agencies. To some extent this process is already underway, with the National Economic Council and the White House pushing seventeen agencies administering some form of competition policy to exercise their full authority in matters related to pricing.[240] For example, the Federal Communications Commission voted to prohibit "sweetheart deals," in which landlords receive payments for allowing only a single internet provider to serve a building, a practice that had significantly driven up prices for tenants.[241] Therefore, a diverse array of legal actors currently have at their fingertips the power to chip away at inflation while improving markets.

3. Encouraging Action

Legal design tools could be deployed to increase the chances that diverse legal actors overcome institutional inertia and political economy obstacles. This section briefly explores two such tools: inflation impact statements and sunset provisions.

Inflation Impact Statements. Since the contributors to prices are so dispersed, and their additions to inflation are often opaque, many of the actors who can individually play a part in addressing inflation may not feel sufficient democratic pressure to do so. Or they may fail to undertake the analysis necessary to see their potential impact on inflation because fighting inflation has not previously been an obvious component of their job. A common tool for promoting awareness and providing accountability in such

239. For some of the tradeoffs involved in antitrust's slowness, see Daniel A. Crane, *Rules Versus Standards in Antitrust Adjudication*, 64 WASH. & LEE L. REV. 49, 109 (2007).

240. *See White House Competition Council*, WHITE HOUSE, https://www.whitehouse.gov/competition [https://perma.cc/8FCL-XWJJ]; *Fact Sheet: Executive Order on Promoting Competition in the American Economy*, White House (July 9, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/09/fact-sheet-executive-order-on-promoting-competition-in-the-american-economy [https://perma.cc/5TWX-L65Q].

241. News Release, Fed. Commc'ns Comm'n, FCC Adopts Rules to Give Tenants in Apartments and Office Buildings More Transparency, Competition and Choice for Broadband Service (Feb. 15, 2022), https://docs.fcc.gov/public/attachments/DOC-380316A1.pdf [https://perma.cc/8YFK-V25L].

situations is the impact statement.

Impact statements are currently required, among other contexts, of legislation that might have a detrimental impact on the environment.[242] The idea in environmental law is to compel lawmakers or administrative agencies to consider the environmental impact of any new legal rules.[243] In 1974, President Ford issued an executive order requiring administrative agencies to study and disclose the effects that their rules might have on inflation.[244] It is worth considering impact statements again today to pressure lawmakers and administrative agencies to pay greater attention to how their actions may subtly or unexpectedly influence inflation.

Inflation impact statements might also incentivize action at the state level. The federal government could publish state-level inflation reports that would summarize inflation dynamics in each state. The Bureau of Labor already collects pricing data from multiple sources in every state as part of its inflation reports and publishes some regional rates.[245] When combined with a study of the effects of specific policies, such reports could put pressure on state-level legislators, attorneys general, and agency leaders best positioned to remove unnecessary occupational licensing laws and encourage the enforcement, or enactment, of price transparency laws. The goal of the reports would be to remove any lack of pressure state actors may feel due to their own or voters' inadequate knowledge of how such microeconomic laws can affect inflation. Inflation impact statements could thus foster greater integration of law and macroeconomics for the benefit of society.

Sunset Inflation Laws. If lawmakers face political resistance to passing market improvement legislation, sunset provisions may help.[246] Sunset provisions ensure that laws are revoked after a certain period of time—at which point, metaphorically, the sun sets on the law. These provisions can be designed in numerous ways, but in the case of inflation-oriented sunset laws, one sensible approach could be to state in the statute that the legal rules will end once inflation reaches a moderate level for a certain duration, such as under 3% for two years. Another approach would be to simply set a certain number of years, such as ten years, after which the laws are no longer valid.

242. *See* National Environmental Policy Act of 1969 § 102, 42 U.S.C. §§ 4321–4370e (2022).

243. *See id.*

244. *See* Exec. Order No. 11,821, 39 Fed. Reg. 41,501 (Nov. 29, 1974).

245. For one such report, see U.S. BUREAU OF LAB. STAT., REP. 1046, CONSUMER EXPENDITURES IN 2012, at 8–9 (2014).

246. A recent experiment, however, suggests that sunset provisions may only increase liberal support for conservative proposals. *See* Kristen Underhill & Ian Ayres, *Sunsets Are for Suckers: An Experimental Test of Sunset Clauses* (Colum. L. and Econ., Working Paper No. 651, 2020), https://ssrn.com/abstract=3518487 [https://perma.cc/FBK4-Q4GA].

A better design would be to require an empirical assessment of the law's effects at the end of some period of time. After a certain number of years, the new policy would be studied to determine its impact on inflation, burden on businesses, and broader influence on the economy. If it is found that the policy is ineffective, perhaps because it fails to lower prices, it would be revoked.

Sunset provisions have previously accompanied contentious price-reducing legislation. When Colorado legislators removed funeral services licensing restrictions in 1983, they were met with warnings of "significant threats to the public health, safety and welfare."[247] The legislature responded to those concerns by including a sunset provision in the statute, requiring a state agency to investigate the impact of the statute after several years of operation to determine whether to continue the new policy.[248]

Ideally, the decisions to pass and keep market improvement laws would be made based on informed studies of the laws' impacts on markets. And if those laws are overall beneficial to society in the long term regardless of inflation levels, as would be expected from market improvement laws, then those laws should remain. However, if political compromise is necessary, then it would be preferable for market improvement laws to end with inflation rather than to not have them at all when the stakes are so high.

CONCLUSION: INFLATION AS OPPORTUNITY

Once-in-a-generation threats such as alarming inflation require a pluralistic policy response involving all parts of the government—the executive, judicial, and legislative branches at both the state and federal levels. Diverse areas of law should be considered to resolve the problem in a way that is as economically productive as possible, rather than relying on the Federal Reserve to raise interest rates out of institutional inertia. Yet the dominant analytic framework for anti-inflation law is currently an obstacle to designing such a comprehensive response.

By not connecting law and microeconomics to the macroeconomic issue of inflation, by not considering the evidence of widespread market failures, and by failing to fully consider how artificial intelligence tools interact with pricing, scholarship has contributed to an underappreciation of the potential impact of market improvement laws on price. The literature also overlooks the ways that price transparency laws can both lower prices in the short term and later provide secondary support for direct structural solutions by helping consumers find the best prices available in the marketplace once

247. *See* OFF. OF POL'Y, RSCH. & REGUL. REFORM, *supra* note 210, at 16.
248. *See* Pizzola & Tabarrok, *supra* note 156, at 59.

supply chains are no longer decimated. These analytic shortcomings have contributed to an inflation policy that erodes economic health and risks driving the economy toward a recession.

Fortunately, a consensus in favor of market improvement laws may be possible. The potential benefits of market improvement laws to society are undeniable and embraced across much of the political spectrum. One reason lawmakers have not always done everything they could to advance markets is that consumers are a dispersed group when compared with the concentrated interests of businesses. That political economy means sensible market improvement laws are not always passed or vigorously enforced during normal times. Instead, throughout history, the political barriers to consumer reforms have usually been overcome by shocks such as the 2008 financial crisis.[249] Earlier periods of high inflation were no exception, driving lawmakers to increase antitrust penalties in 1974 and enact other antitrust reforms.[250] Although the political process has since become more polarized, other bipartisan efforts are underway in a number of areas, including gun control, privacy, and antitrust, all in response to extreme concerns and events.[251] Consequently, with the threat of a deeper recession looming, it is not unrealistic to imagine inflation providing the necessary motivation to overcome the political failures that otherwise prevent beneficial market legislation.[252]

However, policymakers should not need the threat of a recession. A more robust analytic framework for selecting anti-inflation laws would ideally push key legal actors to start with those laws that bring beneficial side effects. Indeed, since inflation tends to take years to address, different market improvement laws can be pursued simultaneously, such as using price transparency laws to help inflation within a year or two while structural antitrust interventions and occupational licensing reforms would reach prices in subsequent years. Although interest rate hikes would need to be used in parallel or shortly thereafter, those hikes can be smaller or reversed more quickly because market improvements will be simultaneously doing some of the inflation-reducing work in the background.

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249. *See generally* POLICY SHOCK, *supra* note 39.

250. *See* Handler, *supra* note 13, at 217 (calling new legislation the "first major reform of the antitrust laws in almost 20 years "); D. Daniel Sokol, *Antitrust's "Curse of Bigness" Problem*, 118 MICH. L. REV. 1259, 1268–69 (2020) (summarizing the period's reforms).

251. *See e.g.*, Ryan Tracy, *Big Tech Antitrust Bill Backers Push for Vote*, WALL ST. J. (July 19, 2022, 4:52 PM), https://www.wsj.com/articles/big-tech-antitrust-bill-backers-push-for-vote-11658258702 [https://perma.cc/WG74-RD78] ("The bill banning self-preferencing has been approved by the House committee and its Senate counterpart, with support from many Democrats and a small group of Republicans.").

252. *Cf.* Listokin, *supra* note 17, at 148 ("Law responds to pressing social problems.").

Indeed, even if market improvement laws fail to play a meaningful role in reducing inflation, such reforms would still prove societally beneficial. It is independently important to reverse the alarming trend of businesses in recent decades becoming more skilled at charging prices higher than justified by their costs. Investing in improving markets is particularly important in the face of evidence of a looming recession, since stronger markets can help lessen the downturn's severity and boost the ensuing economic recovery. Thus, inflation could provide the keys to unlocking valuable legal reforms that would significantly increase total wealth in the long run. Paradoxically, in the depths of inflation may lie an uplifting economic opportunity.