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Markets
State Franchise Laws, Dealer Terminations, and the Auto Crisis

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This feature explores the operation of individual markets. Patterns of behavior in markets for specific goods and services offer lessons about the determinants and effects of supply and demand, market structure, strategic behavior, and government regulation. Suggestions for future columns and comments on past ones should be sent to James R. Hines Jr., Professor of Economics, University of Michigan, at ⟨jrhines@umich.edu⟩.

Automakers in Crisis

In fall 2008, General Motors and Chrysler were both on the brink of bankruptcy, and Ford was not far behind. As the government stepped in and restructuring began, GM and Chrysler announced their plan to terminate about 2,200 dealerships (for a breakdown by state, see Canis and Platzer, 2009, Appendix B). Not all of those dealerships closed in the end; approximately 700 were reinstated by the two manufacturers, and more were referred to arbitration hearings.

In this paper, we address two related questions. First, given that car dealerships are legally independent firms whose function it is to promote and sell particular brands of cars, in what way could closing dealerships benefit car manufacturers?

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Second, if dealerships are too numerous, why would manufacturers decide which dealerships to close, rather than letting market forces determine the outcome? Our answers to both questions lie in the system of state franchise laws that protect the profits of new car dealers. States earn about 20 percent of all state sales taxes from auto dealers, and auto dealerships easily can account for 7–8 percent of all retail employment (Canis and Platzer, 2009, pp. 5, 12, table 1). The bulk of these taxes (89 percent) are generated by new car dealerships, those with whom manufacturers deal directly.[1] As a result, car dealerships, and especially local or state car dealership associations, have been able to exert influence over local legislatures. This has resulted in a set of state laws that almost guarantee dealership profitability and survival—albeit at the expense of manufacturer profits. Given these laws, manufacturers do have a financial interest in closing down new car dealerships, and in choosing which ones will close. Additionally, available evidence and theory suggests that as a result of these laws, distribution costs and retail prices are higher than they otherwise would be; and this is particularly true for Detroit's Big Three car manufacturers—which is likely another factor contributing to their losses in market share vis-à-vis other manufacturers.

In this paper, we begin with an overview of how franchising in the context of car distribution came about, and the legal framework within which it now functions. After discussing the evidence on the effects of the car franchise laws on dealer profit and car prices, we turn to the interaction of the franchise laws and manufacturers' response to the auto crisis. Last, we consider what car distribution might be like if there were no constraints on organization. We conclude that although the state-level franchise laws came about for a reason, the current crisis perhaps provides an opportunity to reconsider the kind of regulatory framework that would best serve consumers, rather than carmakers or car dealers.

History of the Car Dealership Industry

History of Franchising

The first car dealership ever established was by William E. Metzger, who obtained a franchise to sell steam automobiles from General Motors Corporation in 1898. During the first two decades of the 1900s, "virtually every type of distribution was tried in the automobile industry. Manufacturers sold vehicles directly through factory stores, and by mail order and consignment arrangements, and indirectly through retail department stores, traveling salesmen, and wholesale distributors" (Marx, 1985, pp. 465–66). However, the primary method was through wholesale distributors who operated within large exclusive territories,

[1] Specifically, 89 percent of total car sales of $758 million occur in new car dealerships, all of which operate under a franchise agreement with a manufacturer. These dealers, however, also sell used cars (and repair services). The remaining car dealers sell only used cars and, as such, are not branded.

similar to the way in which the McCormick Harvesting Machine Company and the Singer sewing machine company sold their products in the mid-1800s. [2] These auto wholesaler contracts were simple, with the responsibilities of both parties spelled out on a single page, and short term, lasting a year typically, terminable with 30 days notice by either party. Simple contracts were replaced by increasingly complex relationships over the decades that followed as the market for automobiles evolved. Marx (1985) quotes Alfred P. Sloan Jr., on this evolution: "Between 1923–29 the leveling of demand for new cars logically resulted in a change of emphasis in the industry from production to distribution. On the sales end that meant a change from easy selling to hard selling. Dealer problems of an entirely new nature began to arise."

Manufacturers took over the responsibilities of wholesalers, most of whom became dealers. The quality of dealerships became more important. As the requirements and investments in facilities and service equipment and inventory needed to support the more aggressive sales strategies of car manufacturers grew, the number of dealerships, which peaked in 1927 at 53,125, decreased steadily. By 1960, it was down to 33,658, and further down to 23,379 in 1980. In January 2001, it stood at 22,007. Table 1 shows how the number of dealerships has changed from that point on, in total and by manufacturer.

In addition to selling cars, the new larger dealers supervised repair shops, provided warranty service, and inspected and negotiated prices for trade-ins as the market moved to replacement rather than first-time purchases. These roles made car dealers more central to the sales process. Car manufacturers reacted by increasing reporting and other requirements imposed on dealers, as well as providing more incentives to elicit dealer compliance with policies. But the need for local decision making, flexibility, and effort led to a continued reliance on independent dealers rather than a move toward a more centralized distribution system. Indeed, Arruñada, Vázquez, and Zanarone (2009) show that vertically integrated sales outlets, which are present in Spain, generally have much lower labor productivity and lower profitability than franchised dealerships.

Traditional and Business Format Franchising

Franchising today is most often understood as a form of contractual arrangement between two legally independent firms in which one, the franchisee, pays the other, the franchisor, for the right to sell the franchisor's product and/or use its trademarks and business format in a given location for a specified period of time.[3] The U.S. Department of Commerce historically has distinguished two types of franchised relationships: traditional and business format.

[2] See Dicke (1992) on the history of franchising in the United States, including a detailed account of its evolution at these two companies. See also Marx (1985) on the development of franchising in automobile retailing in the United States.

[3] For guidelines to the Federal Trade Commission rules over what is necessary for a contract to constitute a franchise, a useful starting point is ⟨http://www.ftc.gov/opa/2007/01/franchiserule.shtm⟩ (on

Table 1
Number of U.S. Dealerships by Brand

As of January 1, :	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
General Motors	7,761	7,577	7,462	7,342	7,123	6,901	6,653	6,273	5,500
Ford Motor Co.	4,602	4,588	4,459	4,436	4,396	4,270	4,056	3,787	3,553
Chrysler LLC	4,308	4,374	4,110	3,997	3,883	3,749	3,585	3,250	2,352
Total U.S.	16,671	16,539	16,031	15,775	15,402	14,920	14,294	13,310	11,405
Less intercorporation duals†	155	140	140	140	120	100	95	90	60
Net U.S.	**16,516**	**16,399**	**15,891**	**15,635**	**15,282**	**14,820**	**14,199**	**13,220**	**11,345**
Toyota & Lexus	904	929	949	968	1,010	1,054	1,106	1,150	1,190
Honda & Acura	938	972	1,009	1,005	1,059	1,064	1,071	1,076	1,083
Nissan & Infiniti	659	725	797	835	897	941	955	967	984
Hyundai	133	165	214	267	317	394	434	486	494
VW Group	207	256	303	253	344	360	395	397	417
Kia	146	171	261	321	350	367	368	365	403
Mazda	116	142	171	230	286	319	339	343	326
Subaru	165	188	193	214	240	272	275	276	295
Suzuki	83	142	182	218	239	215	306	256	174
Volvo	165	164	167	165	136	136	135	247	199
Other import	1,188*	1,221	1,082*	1,142*	1,026	1,005	1,079*	981*	945
All import exclusives††	**4,704**	**5,075**	**5,328**	**5,618**	**5,904**	**6,127**	**6,463**	**6,544**	**6,510**
Plus import duals	926	889	991	947	903	814	799	689	752
Total**	**22,146**	**22,333**	**22,177**	**22,200**	**22,089**	**21,741**	**21,461**	**20,453**	**18,607**

Source: Automotive News Dealer Data, Various Years.
* "Other import" numbers adjusted slightly to obtain totals reported in source in 2009.
** The census figures for number of new car dealerships are higher than those above. For 2002 and 2007 respectively, for example, the census reports total numbers of new car dealerships of 26,670 and 24,852. It is not clear what the source of the discrepancy is, but our data source has been tracking the industry for a long time and provides consistent and detailed information over time and across brands that is unavailable from other sources, including the Bureau of the Census.
† Most U.S. car manufacturers allow their dealers to sell under more than one of their brands. In a very few cases, dealerships sell cars from more than one U.S. manufacturer. Those are the few "intercorporate duals," whose numbers must be deducted from the total number of U.S. manufacturer dealerships to avoid double counting. The result of subtracting these gives the net number of U.S. dealerships ("Net U.S.") above.
†† Most dealers of import brands sell under a single brand (they are exclusive). The numbers in the table above represent the number of such dealers per import brand. In a minority but still notable number of cases, however, dealers sell cars from two different import brands (see the Import Duals row). As these are not counted among the "All import exclusives", they must be added to the sum of "Net U.S." and "All import exclusives" to give the total number of dealerships in the country.

the webpage, click on "Text"). For a detailed account of different definitions of commercial franchises used in the academic literature across a variety of fields, see Stanworth and Curran (1999). For a review of the legal elements of franchises as per the text of various state franchise laws, see, for example, Pitegoff and Garner (2008).

In traditional franchising, the dealers "concentrate on one company's product line and to some extent identify their business with that company" (U.S. Department of Commerce, 1988, p. 1). Traditional franchising includes automobile dealerships along with gasoline service stations and soft-drink bottlers. In all of these, the franchisor is a manufacturer who sells finished or semifinished products to its dealers/franchisees. In turn, the franchisees resell these products to consumers or other firms. In business-format franchising, by contrast, the franchisor primarily sells a way of doing business to its franchisees. Probably the best-known business-format franchises today are chains like McDonald's and Burger King, but other long-standing examples include Hertz Car Rentals, IGA (independent grocers association), Terminix Termite and Pest Control, Howard Johnson Restaurants, and the Arthur Murray Schools of Dancing.

Dnes (1992) and Klein (1995) note that there is little economic difference between the two forms of franchising, for example in terms of the type of support provided or control exerted by franchisors. However, the regulatory framework within which they operate is quite different. Regulations for business-format franchising mostly focus on disclosure requirements, while in traditional franchising like the car and gasoline retailing industries, manufacturer/dealer relationships are much more directly regulated. We now turn to a description of regulatory frameworks within which these relationships operate and the effects of these regulations.

Auto Franchise Regulation

The Economic Theory of Specific Investments and Regulation

A franchisor would like its franchisees to make specific investments and to exert effort and creativity to increase sales while minimizing downstream costs. However, franchisors will fear that a franchisee may take advantage of any position it might have as a local monopoly, charging consumers more while trying to pass along unnecessarily high costs to the franchisor. For their part, franchisees hope that the franchisor will provide them with a well-made and attractive product. However, they must fear that once they have made specific investments in physical assets and in building their reputation, manufacturers might behave opportunistically and hold them up, for example, by requiring that cars be sold at low prices or services be performed for little compensation. Economic theory suggests that a mutual desire for ongoing relationships, together with private contracting and regulated disclosure, can protect both sides.

Franchisor reputation has been a focus of the literature that explores the forces that could generate efficient relationships. In particular, franchisors generally have much to lose if they behave opportunistically and alienate their franchisees (Klein, 1980). However, during periods of financial stress, such reputation-based relational mechanisms can break down (for example, see Suriowecki, 2006). Conversely, a

dealer who is in trouble financially might misbehave towards its manufacturer, by undercutting other dealers or by providing poor service.

Tools used in contracting between franchisor and franchisee are meant to solve these incentive and hold-up problems. For example, one reason that manufacturers could give exclusive territories to car dealers would be to encourage high levels of investment and service locally. But dealers with exclusive territories may set high prices per what is sometimes called the "double marginalization" argument, in which the ultimate margin charged to consumers represents one margin for the auto manufacturer and a second margin for the dealer. To counter this effect, manufacturers may include minimum quantity requirements, or require that dealers take cars they have not ordered (for further discussion, see Smith, 1982). Such quantity requirements push dealers not to act as local monopolists, but instead to expand quantity beyond what is most profitable to them.

The threat of franchise termination also plays an important role in ensuring efficient investment and quality levels locally. For example, free-riding occurs when one dealership does not provide amenities like a nice building, good sales staff, and local advertising, and uses the resulting cost savings to undercut and steal customers brought to the brand by neighboring dealerships who are engaging in these costly activities. Thus, dealers must be given incentives to invest continually in service and inventory. Klein (1980) and Smith (1982) note that the threat of termination, combined with ongoing monitoring to ensure that a misbehaving dealer is caught with some positive probability, can give the dealer the necessary incentives to invest and not free ride.[4]

Blair and Lafontaine (2005) further discuss the equivalence of different mechanisms that franchisors use to address issues of vertical and horizontal externalities in retail chains and dealer networks.

Auto Franchise Regulation in Practice

The regulation of auto franchises arose as a response to car manufacturer opportunism early in the twentieth century. According to Surowiecki (2006), in 1920, Henry Ford took advantage of its established dealer network by forcing dealers to buy inventories of new cars that they were unlikely to sell. The reason that the company could "force" dealers to take the cars was that they had all made important investments in their facilities and reputation. Thus they had sunk costs that could be expropriated. Ford and General Motors used the same strategy again during the Great Depression. These episodes demonstrated to policymakers that the franchisor, with its greater information and financial resources, might exploit investments made by the franchisees. Federal regulation followed these periods,

[4] For further discussion of monitoring and the threat of termination in this context, see also Telser (1960). Also, see Kaufmann and Lafontaine (1994) for a case study of McDonald's demonstrating that the company leaves rent with franchisees. The authors argue that it does this as part of a self-enforcing, anti-free-riding mechanism.

likely driven partially by the experiences of the dealers and their requests for protection. The starting point for auto franchise regulation is the 1956 federal act generally known as the Automobile Dealer's Day in Court Act (ADDICA), which provides that a car dealer may recover damages if its manufacturer fails to act in good faith in complying with the terms of the franchise agreement, including on issues of allocation of vehicles to dealers, or matters of termination, cancellation, or transfer of the franchise.[5]

However, by the time the ADDICA was enacted, 20 states had already passed auto franchise laws. Today, every state has a law governing car manufacturer/dealer relationships. These state laws tend to be more dealer-friendly than the federal law. Consequently, in what follows, we focus on characterizing these state laws. An online appendix available with this paper at ⟨http://www.e-jep.org⟩ provides a table summarizing some aspects of the regulations that apply in each state, as compiled by Smith (1982) for 1979 and by the authors for 2009. The appendix also contains examples of the contextual statutory language for state laws and clauses mentioned here.

In the remainder of this section, we briefly describe the types of clauses in the state statutes, and how manufacturers could improve their welfare, and potentially that of consumers, in the absence of these restrictions.

All states require that car dealers be licensed. Even 30 years ago, 44 states had such a requirement. This regulation prevents the manufacturer from retailing cars through other means. In particular, this regulation has been a major impediment to the development of Internet distribution of new cars.

States' auto dealership laws also constrain the circumstances under which a franchise relationship can be terminated, cancelled, or transferred. As of 2009, all states had a prohibition against termination except for "good cause." "Good cause" reasons for termination are often enumerated in the law and typically do not include efficiency or increased manufacturer profit (for an example, see the text of the Maine vehicle franchise law in the online appendix at ⟨http://www.e-jep.org⟩). As a result, the manufacturer cannot adjust its network to declining demand without paying a penalty, which is often the present discounted value of expected future profits from the dealership in the regulated world, which can be large. For example, GM apparently spent $1 billion to terminate more than 2,000 Oldsmobile franchisees (Surowiecki, 2006, p. 1). Most often, "good cause" refers to dealer insolvency, license revocation, conviction of a felony, or fraud by a dealer. It also usually includes noncompliance with a "reasonable and material provision of the franchise agreement." (Again, see the Maine law in the web appendix for an example.) The latter category might reasonably include such things as poor service or other free-riding behavior. However, the manufacturer has the burden to show that it has acted in good faith, that the clause is reasonable and material, and usually to put the dealer on notice and give the dealer time to cure the problem (often 180 days

[5] The formal name for the legislation is the Federal Automobile Dealers' Franchise Act, at 15 U.S.C. §1221.

are required; see the text of the Maine law in the web appendix). These requirements make it very difficult to terminate dealers for many, and often repeated, forms of free-riding behavior, thereby limiting the manufacturer's ability to create appropriate incentives.

Many states also protect dealers against "encroachment" (for example, see the text of the Iowa vehicle franchise law), by requiring that a car manufacturer demonstrate "need" to establish a new dealership in a dealer's "Relevant Market Area," as defined in the statute (rather than the territory the manufacturer might have defined). In 1979, there was a statute-defined exclusive territory in 27 states. By 2009, this had grown to 47 states. Encroachment regulations are another restriction preventing manufacturers from adjusting dealer networks to match changing demand patterns. In addition, not being able to close franchises interacts with not being able to move them.

Smith (1982) found that in 1979, 37 states laws also made it illegal for manufacturers to require that franchisees purchase vehicles they had not ordered, which amounts to a prohibition against what is called "quantity forcing." By 2009, 48 states had adopted a similar clause. If a dealer has an exclusive territory, that dealer can often exercise some market power. In the absence of these regulations, the manufacturer might want to use quantity forcing to lower prices, increase total surplus, and thus reduce deadweight loss.

Many state laws also make it illegal for manufacturers to price discriminate among dealers—that is, to offer a lower price to a dealer without offering the same to all dealers in the state or "relevant market area." This type of regulation protects small dealers from large dealers by keeping the large dealers' costs high and thus limiting the extent of economies of scale. Additionally, with these laws, good customer service or other behavior desired by the manufacturer cannot be rewarded using this instrument.

State franchise laws often stipulate that manufacturers must compensate dealers for labor and parts associated with warranty repairs. The prevailing formula for such reimbursement has been "dealer net plus thirty to forty percent," depending on the make and model (Higashiyama, 2009), where "dealer net" refers to the cost of parts to the dealer. But some states now require that the manufacturers pay as much as the dealer charges its retail customers. In *Liberty Lincoln-Mercury v. Ford Motor Co.* (134 F.3d 557, 560 [3d Cir. 1998]), a dealer claimed that it charged retail customers a 77 percent markup over the cost of parts for repair work. In the normal course, rates for warranty work are negotiated between the manufacturer and the franchisee. As dealer associations in many states are pushing for amending their state laws to require that manufacturers pay the dealer's prevailing price, and car manufacturers have been objecting to these changes, we can infer that without these laws, warranty work is typically priced below posted prices for consumers. Of course, provisions requiring payments at the level of consumer charges for warranty work not only increase the cost of doing business for the manufacturers, they give incentives to dealers to increase their "list" prices for repairs. If warranty markups are high enough, they can allow what would normally be unprofitable dealerships to remain in business.

Some states (like Florida) stipulate that if car manufacturers give financial incentives to dealers in other states, they must offer the same to their Florida dealers unless they can demonstrate "substantially different economic or marketing considerations than are applicable to the licensee's same line-make dealers in this state." In addition, if a manufacturer offers per vehicle financial incentives to dealers for facility improvements, Florida dealerships must be paid at least 80 percent of the incentives even if they choose not to improve their facility at all. This type of regulation transfers profit to local dealers and also makes it more expensive for a manufacturer to tailor part of its network.

Finally, most of the franchise laws require that manufacturers, upon termination of a dealer, buy back unsold new vehicles, as well as parts, accessories, special tools, and equipment. Several states are considering, or have recently enacted legislation in response to the auto crisis, that would require further compensation upon termination. For example, Virginia passed a bill, effective March 2009, whereby a car manufacturer that discontinues a brand and thus terminates associated dealers must pay an amount deemed equivalent to the fair market value of the franchise. Such a manufacturer also must pay up to three year's rent (or rental value if the dealer owns its facilities) in addition to buying back inventory and special equipment, as described above. In many of the statutes such compensation is due even if the *dealer* chooses to terminate the relationship.

The net result of all these laws is to raise profits for car dealers. State legislatures may be willing to do this because dealers represent an identifiable source of state employment and tax revenue (Canis and Platzer, 2009, pp. 4–12), while even large manufacturers can site manufacturing plants only in a limited number of states. The result is that new car dealers have an advantage over auto manufacturers when it comes to political leverage in state legislatures, and thus states enact laws that extract rent from manufacturers and redistribute it to franchise dealers.

Auto dealers typically address arguments against the franchise laws by describing the role of the car dealer as a pillar of the community, an important donor to the town's nonprofits, and the archetypical family business. As an article in an auto industry newsletter comments (Henry, 2009): "Even if it's healthy for the auto industry long-term, Chrysler and General Motors closing thousands of dealerships will create a huge amount of collateral damage to Main Street institutions like Little League Baseball and local newspapers. Love them or hate them, car dealers are the go-to donors for local causes and local sports teams, not to mention keeping newspaper advertising in business almost singlehandedly." Economists will recognize this argument as being overbroad. It could be applied just as well to restaurants and any other local business, and therefore does not provide a convincing economic justification for high profits for auto dealerships in particular. Moreover, if additional subsidies to Little League and local newspapers are desirable, artificially high profits for auto dealers would be a peculiarly inefficient way to provide such subsidies.

Outcomes of Car Dealership Regulations

There has been limited research on the car retailing industry, and even less looking at the effect of franchise laws on industry outcomes. A few early authors considered the reasons for the development of franchising in this industry. Hewitt (1956) described the evolution of the car industry and franchise dealer agreements, while Kessler (1957) foreshadows some of our later discussion by emphasizing how the Dealer Day in Court law was likely to cause problems in the long term by limiting flexibility. Pashigian (1961) also examined the economics of franchise dealerships in car retailing.

Several studies from the 1980s suggest that the restrictions of franchise laws affecting car dealerships raised prices to consumers. For example, Smith (1982) contrasted the pre-ADDICA (1956) situation with the 1979 situation. He also relies on cross-state variation in the stringency of regulation between those two periods, as captured by the presence or absence, in the state franchise laws, of dealer licensing requirements, and clauses concerning termination, quantity forcing, and territorial security. He finds that state regulations have served to entrench dealers, protecting them from entry, but also from termination and manufacturer discipline. He also finds that this results in fewer cars being sold at higher prices. Eckard (1985) revisits the issue of the effect of state laws on car prices, focusing especially on the entry restrictions embedded in the franchise laws. Using reduced form regressions and data on prices and quantity by car line at the dealer level from a sample of more than 5,000 Chevrolet dealerships, he also finds evidence that the laws have led to higher car prices. Finally, the Federal Trade Commission conducted its own study (Rogers, 1986). Using data from Chevrolet dealerships on quantity and price, this study estimates a supply and demand model for different model cars in different geographic markets, using share of local employment, as well as measures of various characteristics of the state economy and government, as instrumental variables to capture the political power of auto dealerships. The study concludes that the laws have had a detrimental effect on consumers, increasing prices by about 6 percent.

To our knowledge, no one has revisited the price and quantity effects of the car franchise laws in the United States since these studies. In the European Union, however, Brenkers and Verboven (2006) used estimates from a differentiated demand system for new cars to assess the potential effect of proposed changes in EU policies towards vertical restraints on car retailing in Europe. They found that, assuming that the manufacturer's capacity to selectively choose their dealers and also grant exclusive territories resulted in double margins locally, the change to a system where manufacturers no longer could grant exclusive territories would greatly benefit car buyers via reduced prices. Zanarone (2009) examined the effect of the ban on exclusive territories on franchise contract terms for 19 Italian car dealer networks. He showed that manufacturers relied on a mix of exclusive territories and quantity floors prior to the regulatory change. He concludes that manufacturers indeed used exclusive territories to prevent free riding and induce desired dealer services. Once

exclusive territories were prohibited, manufacturers switched to other contractual devices to achieve the same goals like standards on verifiable marketing and service inputs, such as advertising and number of salespeople.

In their review of the limited empirical literature on vertical restraints across different industries—namely exclusive territories, dealer licensing (protection from entry), and termination restrictions—Lafontaine and Slade (2008) find that that while *privately* imposed restraints seem to benefit manufacturers and consumers alike, when restraints such as these are *mandated* by the government, as they are in the case of car distribution state legislation, they lead to higher prices, higher costs, shorter hours of operation, lower consumption—and thus declines in consumer welfare. Mathewson and Winter (1989), who specifically examined the private versus public interest theories of regulation as they apply to this industry, found that the probability of regulation was increasing in anticipated future growth in the local market. They interpreted this evidence to mean that the laws were enacted to benefit dealers rather than serve the public interest. Reasoning from these findings and the observation that auto franchisees lobby for state restrictions, we can infer that these laws indeed increase franchisee profit.

The economic evidence thus suggests that the end result of the laws is a wealth transfer that benefits dealers at the expense of consumers (and post-bailout, at the expense of taxpayers as well). Moreover, as the European experience shows, the type of contractual restraints contained in state laws affecting car dealerships, if they were imposed privately, would likely be subject to antitrust scrutiny, and might well be prohibited. After all, these restraints limit entry and can be used, and in fact have been shown, to soften competition among existing dealers. Thus, as a former FTC Commissioner Thomas Leary (2007, p. 1) noted, the issue of car dealer state regulation "is important because it lies at the boundary between antitrust and other forms of regulation. For a lot of antitrust lawyers and economists, it has always seemed anomalous that the most effective and most durable restraints on competition are restraints mandated by government at various levels. . . . And yet, government restraints on competition are antitrust immune . . ."

In addition to the static inefficiency effect described above, important dynamic inefficiencies are created by laws that effectively freeze the retail network. This is a problem for several reasons. First, the car-buying population grows and shrinks over time in different locales. For example, in the last 50 years, population and car demand in many parts of the Northeast region has remained static while growing in the Southwest. Similarly, over the last few decades, demand in downtown metro areas has fallen, while more demand is located in exurbs. Secondly, manufacturer market shares change over time. Back in the 1970s, the market share of the "Detroit 3" in the United States was above 80 percent. But it has fallen steadily, to about 74 percent in 1995, 65 percent in 2001, and only about 48 percent by 2008. Moreover, this lower market share for the Detroit 3 in 2008 is a fraction of lower total sales, which hovered around 17 million vehicles per year from 1999 to 2006, decreased slightly (to 16 million vehicles) in 2007,

Table 2
Number of New Light Vehicles Sold per Dealership, U.S. Market

	2001	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Toyota	1,926	1,890	1,966	2,128	2,237	2,412	2,369	1,928	1,488
Honda	1,287	1,283	1,337	1,387	1,381	1,418	1,448	1,327	1,062
Nissan	1,067	1,020	996	1,180	1,200	1,083	1,118	983	783
Ford	861	789	779	748	717	679	631	528	472
GM	626	636	631	634	625	589	574	471	377
Chrysler	575	553	570	607	651	637	579	447	396

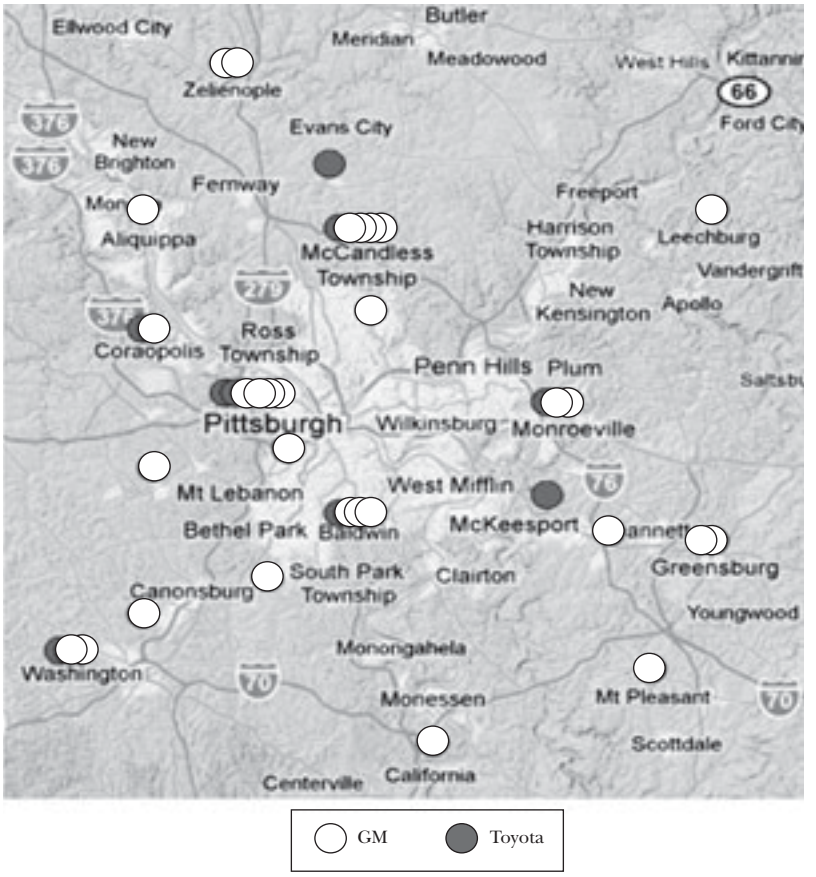
Source: Automotive News Dealer Data, various issues and author calculations.
Notes: Calculated as vehicles sold by manufacturer in year t divided by number of dealerships as of January 1 of year $t + 1$ (as reported in Table 1). Calculations do not correct for intercorporation dual dealerships.

and then sank to 13.3 in 2008 and to 10.5 million vehicles in 2009. Clearly, the Detroit 3 need fewer dealerships now than they did even ten years ago. And while there has been a slow decline in number of dealers, as shown in Table 1, this change has not kept pace with the change in auto sales. As a result, as Table 2 shows, the number of cars sold per dealership for the Detroit 3 has fallen over the last ten years. Finally, it is likely that changes in technology have increased the optimal size of an auto dealership. Many industry participants have indicated to us that economies of scale in repair have been increasing due to new electronic test equipment. There is also less demand for repair due to increased car reliability. The optimal number of dealerships per new car sold has likely declined for these reasons as well.

The inability to adjust to shifts in population, market share, and technology create dynamic inefficiency in U.S. auto retailing. Furthermore, the lack of flexibility in dealer network disadvantages incumbent manufacturers relative to entrants. Toyota and Hyundai, relatively late entrants into U.S. automotive retailing, arrived after the passage of most state laws protecting dealers. They could therefore design a network in response to state laws, one that has fewer but larger dealers, located where the U.S. car-buying population lives today. In contrast, brands such as Ford and Chevrolet established substantial dealer networks prior to the passage of the laws protecting franchised auto dealers and have too many, small dealerships, that were optimally located for the population of the 1960s. For example, in Figure 1, we plot the GM (unshaded) and Toyota (shaded) dealerships in the Pittsburgh area to illustrate the different size and location patterns of the two networks. Clearly, GM has many more dealers in the metro area than Toyota, and GM's dealers are more clustered than Toyota's.

We assembled national data from the industry publication *Automotive News* to illustrate the difference in scale of operations across manufacturer dealer networks (Table 2). Note that a "franchise" in this industry means a contract between an

Figure 1
GM and Toyota Dealerships in the Pittsburgh Area



Notes: The GM and Toyota websites both feature a search utility that allows one to locate dealerships within up to a 100 mile radius of a provided location. We used this tool to locate all the GM and Toyota dealerships within a 25-mile radius of Pittsburgh, Pennsylvania. The GM website allows one to search for dealerships by brand, but this often yields duplicate results since many dealers sell multiple GM brands (thus, a given dealership might show up in a search for all GMC dealers as well as Pontiac dealers). In order to avoid double counting, we conducted searches for all GM brands and noted the ones that appeared multiple times; these were counted once for the purposes of mapping. Toyota, conversely, does not provide an option to search for Lexus dealers on its website so we collected information on Lexus dealerships in and around Pittsburgh by consulting the Lexus website. We use the same double-counting principle where it applied to shared Lexus and Toyota dealerships.

owner and a make of car, such as Jeep or Audi or Toyota. A "dealer" in contrast, is a location owned by one franchisee that could have one or multiple franchises, for example, Toyota-Lexus, Chrysler-Dodge, or Ford-Kia.[6]

[6] Toyota is a manufacturer that produces several brands of cars (Toyota, Lexus, and Scion).

Table 3
Number of Vehicles Sold per Franchise, by Brand, in 2008

Toyota Division	1,589	Dodge	292
Honda Division	1,253	Mitsubishi	213
Lexus	1,158	Volvo	213
Nissan Division	785	Suzuki	194
BMW Division	737	Land Rover	170
Mini	655	GMC	167
Mercedes-Benz	651	Hummer	167
Infiniti	624	Porsche	130
Acura	538	Jeep	126
Hyundai Division	509	Chrysler Division	124
Ford Division	477	Cadillac	112
Chevrolet	459	Pontiac	101
Saturn	440	Saab	92
Kia	427	Jaguar	84
Mazda	400	Lincoln	83
VW Division	381	Mercury	65
Audi	324	Buick	52
Subaru	313		

Source: Automotive News Dealer Data, 2009.

The message in Table 2 is clear: whereas Toyota sells about 2,000 cars per dealership each year, and both Honda and Nissan sell more than 1,000, Chrysler and GM sold fewer than 500 per dealership in 2008, and only about 600 per year in earlier years of this decade. In other words, U.S. manufacturers could drastically reduce the number of their dealerships and remain competitive with import-based manufacturers. Kerrigan (2009) reaches a similar conclusion.

Table 3 looks at "franchises." As of January 1, 2008, dealers of U.S. car manufacturers carried an average of two brands each (according to *Automotive News* 2009 Market Data and Dealer Data). Looking at sales per franchise paints a particularly sharp picture as to which brands sell very few cars and why these brands need to be retired or combined with others to create dealerships that have sales similar to "imports" like Honda.

Alternative Forms of Car Retailing?

What alternative forms of retailing might arise if American consumers were not constrained to purchase cars from independent, protected, franchise dealers? The options discussed here are speculative, by their nature, because none of these business models can be used in the United States at present.

In 2001, an entrepreneur named Scott Painter tried to start a car company called Built-To-Order.[7] In the end he did not raise the funds needed to launch the firm, so it never produced vehicles. The firm had designed a car using a GM powertrain and planned to build it with components from well-established parts-suppliers, such as Delphi, who could deliver large finished pieces of the car such as seat assemblies. The cost-saving innovation was to imitate the "Dell model" by holding inventory of customizable parts such as seat configurations and the stereo. Customized cars would be assembled and delivered after customers had ordered and paid for them. There would be a few stores in large urban areas (Los Angeles, Chicago, Houston, Miami) where consumers could view and test drive a model and order a custom car over the Internet. This business plan promised economic benefits from a number of sources: drastic reductions in the cost of retailing; reductions in the cost of holding inventory; elimination of the need for discounts and cash back to sell cars that had been produced for inventory but which no consumer wanted at the original price; increased revenues from customization (Kiley, 2001); and lower capital costs due to being paid prior to incurring the expenses of building the car. Painter's estimates of the total savings from these sources was approximately 30 percent; that is, he planned to sell a "$50,000 car" for $35,000.

General Motors uses a similar approach for the Chevrolet Celta—in Brazil (Bodisch, 2009). It has very limited showrooms with two cars only; one for test drives and one in the showroom for customers to examine. Customers order one of 20 available configurations, and the car is delivered to the dealership. The reduction in the cost of retail facilities, and the benefit to consumers from a potentially large network of such small "dealerships," could be quite large relative to the current U.S. system.

In other retail sectors, we see manufacturers that primarily use company-owned retail outlets (like Starbucks) and others using mostly franchising (like Dunkin Donuts). Some franchisors use significant numbers both of company stores and franchised stores (like McDonalds). Why firms choose to organize their distribution differently, and why franchisors rely on franchising to a different extent, has been the subject of much scholarly work (Blair and Lafontaine, 2005, chap. 4, offer a summary and references). When the automakers decided to sell their cars through independent dealers, they did so based on what they judged was good for their industry at the time. They cannot now adjust this business decision, even if the market dictates that they should.

[7] Painter had formerly been the chief executive officer of Carsdirect.com. This firm does not sell cars but has a website where a consumer can shop for a car at a guaranteed price. Carsdirect then arranges for a franchised dealer to sell the car to the consumer.

Crisis and the Opportunity for Reform

We have discussed how manufacturers came to rely on franchised dealerships rather than other modes of distribution for their cars, and how once dealer networks were established, dealers successfully lobbied their state legislatures and obtained forms of protection that were not part of their contracts and were stronger than those afforded them by federal laws. However, theory and evidence suggest that the protection that automobile dealers have obtained from local legislatures has been to the detriment not only of manufacturers, but also of consumers, resulting in higher cost of retailing and higher prices for cars, inflexibility of the dealer network, and a lack of innovation in car distribution. Prior to the auto industry bailout in 2008, franchise laws protecting auto dealers transferred profits from manufacturers and consumers to dealers. Now, these laws also effectively transfer bailout funds from taxpayers to auto dealers.

The bankruptcy of General Motors and Chrysler offers a one-time opportunity for these manufacturers to prune and reshape their dealership networks at a much lower cost. In the past, state laws have made it expensive for manufacturers to change the number of franchises or to reconfigure locations of those dealers. In bankruptcy, all contracts are terminated, so the reconstituted manufacturer has a moment when it can determine which outlets make sense given the location of customers and its sales. Allowing the market to select surviving dealers via attrition would take months or years; part of the point of the bankruptcy of GM and Chrysler was to shortcut the pain of reorganization and allow stronger, ideally profitable, car manufacturers to emerge.

As of April 2009, however, new dealer-protection legislation was pending in two-thirds of state legislatures. Dealers were pushing in particular for two types of provisions: increased warranty rate payments and post-termination assistance programs. On the other hand, the General Motors and Chrysler bankruptcy judge had ruled against a motion to stop dealer terminations, noting that in bankruptcy cases not everyone can be protected.

The laws favoring car dealerships were put in place, according to a representative statement by the Florida state legislature, to "protect the public health, safety, and welfare of the citizens of the state by regulating the licensing of motor vehicle dealers and manufacturers, maintaining competition, providing consumer protection and fair trade" (Florida Law, §320.605). In our view, the current regulations tend too much toward protecting auto dealers from market forces and raising their profits; we argue that consumers would benefit if manufacturers could have much more leeway in experimenting with alternative distribution models than the web of franchise laws currently in place allow them to do.

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