

## CASE 17

### Retail Auto Sales: *Tesla v. State Vehicle Franchise Laws* (2017)

Fiona Scott Morton  
and Ann McDermott\*

#### INTRODUCTION

---

How a manufacturer chooses to sell its products has important economic implications. While some manufacturers retain all sales and marketing functions in-house and sell directly to their customers, others choose to sell through intermediaries, which sometimes introduces conflicting incentives between manufacturer and seller.

With few exceptions, U.S. automakers have sold their cars exclusively through independent franchised dealers. Over the years, legal protections have accrued to these independent dealers. These protections were originally justified as a necessary correction to the imbalance in negotiating power between large auto manufacturers and small independent dealers of those early automobiles. However, over the last half of the 20<sup>th</sup> century, state legislatures greatly expanded these regulations in favor of dealers despite the fact that during this period bargaining and information asymmetries between manufacturer and dealer shrank. Thus, these dealer licensing regulations are now a hard-to-justify source of protection for incumbent dealers that likely raise prices and stifle innovation.

Tesla, the young electric vehicle manufacturer, wants to sell its cars over the internet and directly to consumers through Tesla-owned and -operated

---

\* Fiona Scott Morton has testified as an expert witness on behalf of Tesla. Ann McDermott assisted in the development of the economic analysis underlying Professor Scott Morton's testimony. The authors were retained by the Tesla legal team for several state cases to present competition and consumer welfare issues and explain that barriers to entry and restrictions on distribution choice harm consumers.

## THE ANTITRUST REVOLUTION

stores. Incumbent dealers perceive this distribution method to be a threat; presumably, if Tesla introduces it and consumers like it, other manufacturers might want to distribute automobiles without employing dealers. Thus, at the urging of dealers, a number of states have made Tesla's direct-sales model illegal: barred by state-level dealer licensing laws.

The Tesla example demonstrates how the state plays an important role in determining competitive conditions in industries. In this instance, the state regulation blocks entry of an innovative technology and a differentiated entrant. Economic theory tells us that firms—individually and/or collectively—will attempt to influence the regulator to achieve outcomes that increase their profit, such as establishing barriers to new entrants or establishing an environment with weak price competition. Although individual consumers each benefit a little from lower prices, no single consumer has a sufficient financial incentive to take the time and effort to inform herself and complain or vote against the regulation, and thus consumers may not be able to offset the influence of the regulated industry on the regulator. The industry participants, by contrast, are focused on their goal and willing to spend up to the level of the additional monopoly profit on lobbying and other activities to achieve that profit (Smith 1982).

Because of the regulations on U.S. auto distribution, this retail sector now cannot change, cannot innovate, and is regarded by consumers as performing badly.<sup>1</sup> Yet it is also the largest retail sector in the country, with nearly \$1 trillion in annual sales.

Tesla has had to litigate for the right to sell its cars through company-owned stores in many states. In others, the arrival of Tesla has stimulated legislation that strengthens existing bans on direct sales. In those cases, state departments of motor vehicles (DMVs) or legislatures have permitted incumbent franchised dealers—and, to a lesser extent, rival manufacturers also—to use regulatory and legislative channels to oppose Tesla's entry. Unfortunately, the legal arguments that have been made to date have often focused less on the harm to competition or consumers from blocking Tesla's entry than on technical questions of dealer licensing.

This chapter reviews the economics of franchising and vertical integration and their intersection with state-level regulation of auto dealer franchise agreements. We start with background on the basic economic principles that govern these vertical relationships and how they have been applied to auto retailing in the U.S. We also provide some background on the standard auto franchise in the U.S. and compare it to Tesla's model. We then turn to a specific example of the legal obstacles Tesla faces: We use Tesla's efforts to open a second store in Virginia to frame the economic issues here. The arguments presented in Virginia are similar to

---

<sup>1</sup> Lafontaine and Scott Morton (2010); Gallup, "Honesty/Ethics in Professions," last updated December 7–11, 2016, current and historic results, <http://www.gallup.com/poll/1654/honesty-ethics-professions.aspx>.

those that have been made in other states. We conclude with a discussion of the competitive effects of vehicle licensing laws that have been used to block Tesla's entry.

## BACKGROUND

---

### Vertical Relationships in Auto Retailing

Lafontaine and Slade (2008) show that there is great variety across the United States in how firms choose to distribute their products: e.g., vertical integration, franchising, or arm's-length sales. From an economic perspective, there is nothing in the nature of auto sales that requires them to be made through independent franchised dealers. In fact, in the first decades of auto sales, many different sales models were used, including wholesale distribution, consignment, and direct sales (FTC 1939).

But by the 1950s, U.S. manufacturers had essentially all settled on the use of independent franchised dealers to purchase (at wholesale), promote, and sell (at retail) their vehicles (Kessler 1957). This status quo continues today. By franchising auto sales to independent dealers, automakers were able to rely on local salespeople; the manufacturers' distribution method also reduced their capital requirements for rapid expansion (since the dealers bore the costs of financing the retail inventory until it was sold to consumers), and allowed the automakers to focus more on designing and building vehicles.

The franchising model creates two different types of competition that benefit consumers. The first is known as "interbrand competition" and refers to the horizontal competition between different franchisor brands, such as Ford and Toyota, or between McDonalds and Burger King. Franchisors compete on quality, innovation, and cost to deliver a product or business model to their franchisees that (the franchisors hope) consumers will want—in the context of the other brands that are competing for those same consumers in the marketplace.

Franchisees of the same brand then compete to sell their branded products to consumers in what is known as "intra-brand competition." For instance, Ford dealerships compete on convenience, friendliness, and price, but they all carry the same make of car. While the manufacturer sells cars to its dealers at a wholesale price, it is the independent dealer that chooses the final retail price (and service quality level) and therefore creates intra-brand competition among Ford dealers. This intra-brand competition reduces prices and increases service levels for consumers who have chosen to buy a Ford automobile, to the benefit of both consumers and Ford.

Without intra-brand competition, a monopoly local Ford dealer could charge a monopoly retail margin and thereby reduce the quantity sold of Ford cars—consumers would buy a Toyota or VW instead—and would

## THE ANTITRUST REVOLUTION

harm both consumers and the manufacturer (Blair and Lafontaine 2005). By contrast, a competitive retailing sector (intra-brand competition) will reduce the retailing margin to a competitive level, which is especially critical when the manufacturer has outsourced the retailing function. Beard et al. (2015) find that dealer mark-ups are reduced by hundreds of dollars when dealers face greater intra-brand competition. Scott Morton et al. (2011) similarly find that consumers who visit a second dealership will decrease their price by \$109 or 7% of the average dealer gross margin.

The retail outlets of a vertically integrated manufacturer have no separate retail market power and do not set a retailing margin. Thus, intra-brand competition is an irrelevant problem. Instead, the vertically integrated firm sets its retail price knowing its costs for both manufacturing and retailing and knowing the nature of inter-brand competition that characterizes the market. More manufacturers competing with one another reduces prices due to inter-brand competition (Berry et al. 1995).

A common model of retailing is the very simple method of a retailer that engages in arm's-length transactions for its supplies (inputs) at wholesale prices and that is completely free to run its business in any way. The franchisor/franchisee relationship is a model of partial vertical integration that avoids some of the competitive concerns and efficiency problems that can arise when two independent firms have this arm's-length wholesale/retail relationship.

But franchising can have its own problems. Lafontaine and Scott Morton (2009) explain the sometimes-conflicting incentives of franchisors and franchisees: For instance, a franchisor wants its franchisees to make specific investments and to exert effort and creativity to increase sales while minimizing downstream costs and selling its product at a competitive price. But the local franchisee seeks to maximize its own profits—not the broader franchisor profit—and may skimp on effort. For example, the local franchisee will not value the overall brand reputation as much as the parent company does and may offer low quality to consumers it does not expect to see again. This is illustrated by a fast food franchise that is located at a busy rest stop on a major highway. Franchisees, in turn, want their franchisor to provide them with a well-promoted, well-made, and attractive product that they can sell at a profit while not subjecting them to “hold-up” or opportunistic behavior. As an example of the latter: A franchisor might add franchisees in a territory in which the original franchisee has invested in the expectation of future sales.

In the case of auto retailing, a franchised auto dealer is typically required to make significant brand-specific investments in items such as signage, showrooms that are tailored to the franchisor's specifications, and brand- or vehicle-specific repair and diagnostic tools. Whenever one party makes investments that are specific to a relationship with another party, it is potentially subject to hold-up: the partner seeks to appropriate some of the expected returns from those relationship-specific investments.

Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

The usual remedy for such situations is for the two parties to sign a long-term contract prior to making any relationship-specific investments. Arguably, however, there was a time when the unequal bargaining power between the “Big 3” automakers (General Motors, Ford, and Chrysler) and their dealerships meant that franchised dealers could not fully protect their investments through contractual means.<sup>2</sup> The asymmetry in bargaining power led to a call for dealer franchise laws to prevent automakers from, among other things, awarding nearby competing franchises to favored dealers or entering into direct retail competition with their franchisees (Smith 1982). Dealers argued that allowing automakers to compete directly with their franchisees raised a concern over “self-dealing” behavior with respect to vehicle allocation decisions or attempting to price vehicles so as to disadvantage franchisees.<sup>3</sup> In the case of auto retailing, legal protections were adopted on behalf of independent franchised dealers as early as the 1930s.

However, dealer protections in franchise laws continued to accrue. Current state franchise laws provide broad protections to restrict manufacturers’ ability to terminate, add, expand, or move a dealership. Many states also bar manufacturers from certain actions that would reduce retail prices, such as requiring dealers to sell more vehicles (quantity forcing) or rewarding dealers for good performance with lower wholesale prices (price discrimination). Other state laws appear simply to mandate rent transfers from manufacturers to dealers. For example, Florida’s vehicle manufacturer licensing laws (at §320.64(38)) require that any incentive program that is offered to dealers nationally or to dealers in regions that include Florida be offered to all Florida dealers and that an incentive program that pays dealers to improve their facilities must pay dealers in Florida at least 80% of those funds regardless of whether or not they improved their facilities.

Since the advent of the Internet and attempts by manufacturers to establish more direct sales channels to their customers, the scope of state franchise laws has been further expanded to limit or prohibit manufacturers’ ability to sell vehicles directly to consumers in competition with their franchised dealers. Such a prohibition was upheld in *Ford Motor Co. v. Texas Dep’t of Transp.*, 264 F.3d 493, 503 (5th Cir. 2001), on the grounds that there was a legitimate state interest in “prevent[ing] vertically integrated companies from taking advantage of their incongruous market position and . . . prevent[ing] frauds, unfair practices, discrimination, impositions, and other abuses of our citizens.” This latter concern—that direct sales between manufacturers and their customers could hurt consumers—has been supported by dealer associations with the use of arguments that have little-or-no basis in economic theory or credible evidence.

<sup>2</sup>“These agreements are between parties of very unequal economic strength and bargaining power” (FTC, 1939, p. 114).

<sup>3</sup>Prior to Tesla’s entry efforts, the issue of direct sales was raised in the late 1990s/early 2000s when automakers and online sellers tried to sell directly to consumers. See Kwoka (2001, p. 65).

## THE ANTITRUST REVOLUTION

Interestingly, though the protections in state franchise laws were designed to protect independent franchised dealers from their own manufacturers, Tesla does not have any dealers because it sells directly to consumers over the Internet or through company-owned stores. Thus, the arguments in favor of dealer protection laws that rely on dealer-manufacturer inequities are of no relevance to Tesla's business model.

### Retail Auto Sales in the U.S.

Auto dealerships (new and used combined) account for about 8% of U.S. retail employment and 17% of U.S. retail sales taxes. Aside from Tesla, essentially all auto manufacturers sell their vehicles in the U.S. through independent franchised dealerships and have done so for many decades (Kessler 1957). Under a typical franchised auto dealership contract, an independent dealer agrees to purchase (at wholesale), promote, and sell (at retail) a manufacturer's vehicles and to finance investments in assets, such as showrooms and signage, repair and service centers, and on-site inventory, which redound to the joint benefit of the manufacturer and the dealer. Most dealerships combine a sizable new car sales lot with a used car sales lot and a service and repairs facility. Franchised dealerships need significant financial resources and large lots to house vehicle inventories that average 64 days' worth of sales.<sup>4</sup> Used car sales, parts and service, financing, and other services generally account for a large share of the typical dealership's revenues and profits.<sup>5</sup>

In addition to designing, producing, and promoting their vehicles, manufacturers play an active role in directly supporting their independent franchised dealers. For instance, manufacturers often help their dealers finance dealership costs.<sup>6</sup> Manufacturer-dealer incentives and dealer "hold-back" (i.e., delayed rebates) help boost dealer margins on new vehicle sales.<sup>7</sup> Manufacturers also will often offer direct incentives to consumers to promote the sale of specific vehicles, especially at the beginning and the end of the model year (Corrado et al. 2006).

Over time, the number of auto dealerships in the U.S. has decreased, while their average size has increased.<sup>8</sup> Dealership ownership has

<sup>4</sup>Dunn and Vine (2016, Table 1).

<sup>5</sup>For instance, AutoNation, a large chain of franchised dealerships, reported that these business segments accounted for 43% of its 2016 revenue and earned a margin that averaged 29%. See AutoNation, Inc., 10-K for the fiscal year ending December 31, 2016, p. 28.

<sup>6</sup>For example, in 2016 Ford held more than \$31 billion in receivables for wholesale loans to its dealers (\$2.7 million per dealership). Ford Motor Company, "2016 Annual Report," pp. 2, FS-21.

<sup>7</sup>For example, Penske Automotive Group, which operates 355 dealerships in the U.S. and overseas, earned \$654.9 million in rebates, incentives, and reimbursements from manufacturers in 2016: more than \$2,500 per new vehicle sold. Penske Automotive Group, Inc., 10-K for the fiscal year ending December 31, 2016, pp. 1, 35, 38.

<sup>8</sup>National Automobile Dealers Association, "New Report: New-Car Dealership Employment Sets Record in 2016," April 13, 2017; Kessler (1957, p. 1137).

## Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

consolidated, which has rendered the independent locally-owned dealership increasingly a thing of the past. In 2015, only 31% of new car dealerships in the U.S. were solo operations; the remainder were in chains of 2 to 260 dealerships.<sup>9</sup>

While the independent franchised dealer model is the standard for retailing autos in the U.S., consumers are generally uncomfortable with the haggling and up-selling that are a standard part of their auto purchase process. A Gallup survey, conducted since the 1970s, has consistently found that car salespeople are at or near the bottom of its ranking of professions by honesty/ethics.<sup>10</sup>

## Tesla

### Tesla's Vehicles

Tesla is a relatively new entrant in the motor vehicle industry. Headquartered in the U.S., Tesla designs, manufactures, and sells innovative all-electric vehicles. It sold its first car, a roadster, in 2008, and in 2016 sold nearly 50,000 vehicles in the U.S., for a 0.3% share of U.S. new car sales. As of June 2017, Tesla sells two models: Model S, a luxury sedan; and Model X, a luxury sports utility vehicle. Tesla is expected to begin production of its first mid-level sedan, Model 3, in July 2017. Tesla reportedly holds nearly 400,000 reservations for Model 3. With a base price of \$35,000 before incentives, Model 3 is expected to compete with other mass-market electric vehicles, such as the Chevrolet Bolt and the Nissan LEAF.

Tesla has been the most successful new U.S. auto brand launched in nearly a century. While quality concerns caused *Consumer Reports* to downgrade Model S in 2015, customer satisfaction remains high: Between 2013 and 2016, Model S has ranked highest in *Consumer Reports'* annual customer satisfaction surveys, with 91 percent or more of Model S customers surveyed stating that they would definitely purchase a Tesla again.<sup>11</sup>

### Tesla's Sales and Service Model<sup>12</sup>

Tesla sells its cars directly to consumers through Tesla-owned and operated stores or over the Internet. As of June 2017, Tesla operates 90 stores and 68 service centers in 26 states plus the District of Columbia. These stores and

<sup>9</sup>National Automobile Dealers Association, "NADA Data 2015," p. 21; AutoNation, Inc., 10-K for the fiscal year ending December 31, 2016, p. 1.

<sup>10</sup>Gallup, "Honesty/Ethics in Professions," last updated December 7–11, 2016, current and historic results, <http://www.gallup.com/poll/1654/honesty-ethics-professions.aspx>.

<sup>11</sup>See, e.g., *Consumer Reports*, "Tesla Model S Takes the Top Spot in Consumer Reports Car Owner-Satisfaction Ratings," November 21, 2013; Tech Crunch, "Tesla Tops 2016 Consumer Reports' Customer Satisfaction Survey," December 22, 2016.

<sup>12</sup>Tesla's sales and service model is changing as the company grows. This section is accurate as of June 2017.

## THE ANTITRUST REVOLUTION

service centers are staffed by Tesla employees who are expected to have a thorough knowledge of Tesla vehicles. The stores generally have very little inventory in stock and only one or two vehicles for test drives and service loaners. Tesla cars are almost always made to order, and delivered to a store or other nearby location for customer pick-up. Tesla's cars are sold at a fixed price that depends on the configuration of options that are chosen by the customer; the price is not negotiable in any way. Stores employ Customer Experience Specialists: hourly employees whose job is to educate potential customers patiently on Tesla's products, their technologies, and how to use them. In-store salespeople assist customers with their purchases and are salaried. They are also paid fixed commissions per car, depending on its type and the productivity of the salesperson.

Unlike traditional dealerships, Tesla does not treat auto financing, repairs and service, or used car sales as a source of profits. For instance, Tesla offers assistance with financing through its financial partners, but it does not mark-up the financing with points or fees. Tesla's service and repair centers have a more narrow focus than is typical for dealer service centers. Tesla's all-electric vehicles do not require some of the more common maintenance steps that are standard for internal combustion engine ("ICE") vehicles, such as oil changes and spark plug or oil filter replacements. Also, Tesla routinely services its vehicles remotely, through over-the-air software upgrades that do not require a service-center visit.

In 2016, Tesla's revenue from used car sales, parts and service, and finance and insurance was just 7% of its total automotive revenue, and its gross margin on these secondary activities was slightly negative; these secondary revenue sources were essentially provided at cost.<sup>13</sup>

### Rationale for Tesla's Sales and Service Model

Tesla has a number of economically interesting explanations for its choice of distribution method: Most significantly, Tesla believes that a patient and transparent sales process is the most effective way to sell its new and novel vehicles. Tesla's cars are built using unfamiliar technologies that must be patiently explained to a potential customer. Tesla worries that an independent Tesla dealership would have different incentives—perhaps to make a sale quickly—and thus would behave differently than do Tesla-owned stores.<sup>14</sup>

Whether Tesla sells a car in Virginia, California, or China, the profits from that sale are realized by Tesla. Therefore Tesla sales staff are

<sup>13</sup> Tesla, Inc., 10-K for the fiscal year ending December 31, 2016, pp. 38, 44–45.

<sup>14</sup> Multiple studies have found that traditional dealerships have struggled to support and sell the electric vehicles in their inventories. See Cahill et al. (2014); Lunetta and Coplon-Newfield (2016); *Consumer Reports*, "Dealers Not Always Plugged in About Electric Cars, Consumer Reports' Study Reveals," April 22, 2014; Green Car Reports, "2014 BMW i3 Test Drive: No Help from Salesman for Electric-Car Buyer," May 23, 2014.



## Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

incentivized to spend time educating consumers—whether the consumers live down the street or in another state.

Tesla believes that this patience is important, since the people who come into Tesla stores are often simply curious about its innovative products and often visit multiple times before they buy a vehicle. An independent dealer would lack the incentive to invest the time to educate a consumer about Tesla cars if such education were unlikely to result in an on-site sale. In addition, depending on the commission structure at an independent dealership, the independent dealer's salesperson may lack the incentive to invest time educating a consumer about Tesla cars if that consumer was not prepared to buy the car that same day. The salesperson also would be aware that the customer might not come back at all to purchase the car because, after considering the decision, she could easily buy it online.

In addition to the demand-side benefits that Tesla enumerates, a number of studies have focused on the cost savings from direct distribution. Distribution costs account for 24–30% of the retail sales price of a new vehicle,<sup>15</sup> so savings could offer a significant benefit to consumers. When a consumer orders the exact configuration of car she wants—and places a down payment or complete payment—the manufacturer's cash flow is greatly improved, and there is no wasted production.

That business model is in contrast to the current U.S. manufacturers' practice of producing vehicles for inventory: Dealers hold large numbers of cars, which tie up resources in the cost of inventory while at the same time imperfectly matching demand. Many cars must be later discounted because no one wants them. A 2008 estimate of the annual carrying costs of new car inventory in the U.S. came to \$890 million (Bodisch 2009); this is a figure that is unlikely to have decreased.

The potential cost savings from a build-to-order online direct sales model have been put at \$2,579 or nearly 9.9% of the then-average new car price (Lapidus 2000). Most of the savings are from an improved matching of supply with customer demand and reduced dealer network costs. An auto manufacturer with thousands of dollars of cost advantage through a lower cost of inventory and a lower mismatch rate can gain a competitive advantage versus rivals and deliver the same quality of car to consumers at a lower price.

## LEGAL EFFORTS TO BLOCK TESLA'S ENTRY

---

Since its first sales in 2008, Tesla has faced legal and regulatory opposition to its efforts to sell its vehicles in the manner that it prefers. Obstacles have varied by state. Table 17-1 summarizes public information on Tesla's ability to open new dealerships in specific states, as of June 2017.

---

<sup>15</sup> Saloner et al. (2000); Lapidus (2000).

THE ANTITRUST REVOLUTION

**TABLE 17-1**  
**Limits on the Ability of Automakers without Franchised Dealerships to Sell Directly to Consumers\***

State	Tesla	Other Automakers	Action
Alabama	Banned	Banned	Bill would have permitted direct sales by alternative fuel vehicle manufacturers, but bill died in committee (2016).
Arizona	Allowed	Allowed	<i>Tesla v. Arizona Department of Transportation</i> leads to lifting of ban on direct sales (2016).
California	Allowed	Allowed	No opposition noted.
Colorado	Limited	Limited	Tesla-specific exemption, allows 1 store (2010). In 2017, there are 3 stores.
Connecticut	Banned	Banned	Tesla operates 1 gallery (display-only) and 1 service center but is barred from selling directly. HB 7097 would allow direct sales by manufacturers of electric vehicles but has been tabled (2017).
D.C.	Allowed	Allowed	No opposition noted.
Florida	Allowed	Allowed	No opposition noted.
Georgia	Limited	Banned	<i>Georgia Automobile Dealers Association v. Tesla Motors</i> , Petition to Georgia Department of Revenue, leads to legislation defining Tesla-specific exemption for 5 stores (2014).
Hawaii	Allowed	Allowed	No opposition noted.
Illinois	Allowed	Allowed	No opposition noted.
Indiana	Allowed	Banned	Tesla-specific exemption (2017).
Iowa	Banned	Banned	Direct sales are not allowed.
Louisiana	Banned	Banned	Legislation (HB 167) passed in the House, went to the Senate as an amendment to SB 107. Signed by governor (2017).
Maryland	Limited	Limited or Banned	Legislation (HB 235) allows manufacturers of non-fossil fuel burning vehicles to operate up to 4 dealerships (2015).
Massachusetts	Allowed	Allowed	<i>Massachusetts State Automobile Dealers Association v. Tesla Motors</i> fails when judge rules MSADA lacks standing (2013).
Michigan	Banned	Banned	Legislation bars direct sales (2014). Tesla has sued (2016).
Minnesota	Allowed	Allowed	Manufacturers with no franchised dealers may sell direct.

Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

Missouri	Uncertain	Uncertain	<i>Missouri Automobile Dealers Association v. Nia Ray et al.</i> succeeds in barring direct sales (2016). Tesla is appealing (2017).
Nebraska	Banned	Banned	Direct sales are not allowed.
Nevada	Allowed	Banned	Tesla-specific exemption awarded (2014).
New Hampshire	Allowed	Allowed	Legislation allows direct sales by manufacturers with no franchised dealers in state (2013).
New Jersey	Limited	Banned	Tesla-specific exemption, allows 4 stores (2015).
New Mexico	Banned	Banned	Direct sales are not allowed.
New York	Limited	Banned	<i>GNAYADA v. DMV</i> fails when NY Supreme Court rules dealers lack standing. Under compromise legislation, Tesla-specific exemption is defined, allowing 5 stores (2013).
North Carolina	Limited	Limited	1 store allowed (2013); a 2 <sup>nd</sup> store is denied (2016).
Ohio	Limited	Banned	Dealers filed two suits in 2013 against Tesla and the BMW; judge rules dealers lack standing (2013). Under compromise legislation, Tesla-specific exemption is defined, allowing 3 stores (2014).
Oregon	Allowed	Allowed	No opposition noted.
Pennsylvania	Limited	Banned	Under compromise legislation, Tesla-specific exemption is defined, allowing 5 stores (2014).
Tennessee	Allowed	Allowed	No opposition noted.
Texas	Banned	Banned	Tesla operates 10 galleries (display only) and 5 service centers but is barred from selling directly.
Utah	Banned	Banned	<i>Tesla Motors UT v. Utah Tax Commission</i> goes to Utah Supreme Court. Tesla Motors UT loses (2017). Despite loss, store remains open.
Virginia	Limited	Limited	Tesla has DMV approval to open 2 <sup>nd</sup> store (2016). <i>Virginia Automobile Dealers Association v. Tesla Motors et al.</i> filed to block the store (2017).
Washington	Allowed	Banned	Tesla-specific exemption awarded (2014).
West Virginia	Banned	Banned	Legislation bans direct sales (2015).
Wyoming	Allowed	Allowed	Legislation (SF 57) passes allowing direct sales by manufacturers with no independent dealers (2017).

\* Characterizations ("Banned", "Allowed", and "Limited") reflect publicly available statements and characterizations and reflect information that was available in June 2017. This table does not express an opinion as to whether the relevant statutes or regulations actually have been, or should be, construed to ban, permit, or limit Tesla's direct sales model.

## THE ANTITRUST REVOLUTION

In some states where Tesla has been blocked, such as Iowa and Texas, existing laws reportedly bar direct sales by a manufacturer, even when the manufacturer has no franchisees with which it would compete. In other states, such as Michigan and West Virginia, laws have been modified reportedly so as to prevent Tesla from entering. In still other states—e.g., Georgia, Indiana, Maryland, New Jersey, New York, Ohio, and Pennsylvania—recent legislation reportedly motivated by Tesla’s entry has allowed Tesla a limited (often capped) entry, but bars future entrants. This legislative protection for incumbent dealers means that the next entrant to the U.S. auto industry—whether a low-cost manufacturer from China or an autonomous car from Silicon Valley—will face even tougher obstacles.

In all, Tesla has had to litigate for the right to sell its cars in the manner of its choosing in at least six states. In another ten states, at least, it has had to carve out special legislative exceptions to allow its entry (barring future entrants) or it has lost out to legislation that strengthens bans on direct sales.

Virginia is an example of a state where local courts are being used by dealers to slow Tesla’s entry. Tesla has operated one store in Tysons Corner, Virginia, since 2015. In January 2016, Tesla petitioned the Virginia Department of Motor Vehicles (DMV) for a second dealer license: to sell its cars in Richmond.<sup>16</sup> Under Virginia law, a manufacturer can retail its vehicles only under limited circumstances. Tesla sought a ruling under Virginia Code §§ 46.2-1572(4) and 46.2-1573, whereby a license could be issued to a manufacturer if it was determined that there was no independent dealer that was available to operate the dealership in a manner that was consistent with the public interest.<sup>17</sup> In hearings in March and April 2016 in front of the Virginia DMV, arguments were presented by and on behalf of Tesla, as well as by and on behalf of the Virginia Automobile Dealers Association (VADA) and certain independent dealers who testified that they stood ready to sell Tesla vehicles if awarded a franchise.

In November 2016, the Virginia DMV approved Tesla’s request on the grounds that there was no independent dealer in Richmond available to own and operate a Tesla dealership in a manner consistent with the public interest.<sup>18</sup> In January 2017, VADA filed a petition of appeal in Richmond City Circuit Court against the Commissioner of the DMV and Tesla, aiming to overturn the Commissioner’s decision. As of mid-2017, Tesla reportedly is moving forward with plans to open its Richmond store.<sup>19</sup>

<sup>16</sup>Tesla first sought a dealer license in Virginia in 2012. After being turned down, Tesla sued in Fairfax County Circuit Court. Under the terms of a 2013 settlement, Tesla obtained a license that allowed it to operate a dealership in Fairfax County for 30 months. That dealership opened in February 2015.

<sup>17</sup>Commonwealth of Virginia, Department of Motor Vehicles, “Hearing Decision, Re: Formal Evidentiary Hearing: Tesla Motors, Inc., File No. 2016-001—Request for a Hearing Pursuant to Va. Code §§ 46.2-1572(4) and 46.2-1573 to Be a Dealer,” November 30, 2016.

<sup>18</sup>Virginia DMV, Hearing Decision, pp. 1–2, 8.

<sup>19</sup>Richmond BizSense, “Auto Dealers Group Keeps Up Fight Against Tesla, Gets Sued by Hanover Supervisor,” February 7, 2017.

## VADA's Arguments

Economic arguments that have been raised by Tesla's opponents have centered on whether a state or its agencies have a legitimate public purpose for blocking Tesla from selling its vehicles direct to consumers.<sup>20</sup> It is worth noting that protecting incumbent dealers from additional competition is not a legitimate public purpose.

VADA's arguments before the DMV primarily focused on its opinion that there were independent dealers who were ready and willing to operate a franchised Tesla dealership.<sup>21</sup> This readiness hinged crucially on Tesla's agreeing to provide its vehicles to the dealer at a discount or wholesale price (which it is not).

In addition, VADA offered several economic arguments in support of its claim that requiring Tesla to use independent dealers would be in the public interest:<sup>22</sup>

First, it argued that relying on independent dealers to sell vehicles promotes competition in price and service quality. This competition benefits consumers who can price shop across dealerships, pushing the dealerships to make price concessions to gain the sale. Even for models that are sold at a fixed price, such as Saturn, independent dealers would compete to supply superior services, specific inventory, or other valued features. VADA contends that when Tesla owns its retail distribution network, it eliminates competition between its stores—to the detriment of its customers.

Related to this argument was VADA's claim that an independent dealer would provide higher-quality service than is currently provided through Tesla's stores. This claim was essentially that consumers—especially the mass market consumers whom Tesla will be serving for the first time when its Model 3 launches—prefer and expect the traditional dealership model, with its large on-site inventory, competition over trade-in values, and a broad array of financing options. Another element to the argument is that there is value intrinsic to local ownership of dealerships: Local ownership means that the dealership has roots in the local community and thus will invest in its community through charitable donations, Little League team sponsorships, and the like.

Another argument that was put forward highlighted the risk to consumers if Tesla were to fail and then terminate its entire sales and service network. Customers would be “abandoned” with no local presence to service their vehicles. VADA points to instances in the past where a vehicle

<sup>20</sup>The legitimate public purpose question has been addressed by Tesla and its opponents in Virginia, Michigan, North Carolina, and Utah.

<sup>21</sup>The DMV did not find the testimony from dealers who claimed their readiness to invest in a Tesla dealership to be credible. The dealers confirmed that they had done no financial analysis for their proposed investment, and none showed evidence of being capable of selling or servicing Tesla products. *Virginia DMV*, Hearing Decision, pp. 4–6.

<sup>22</sup>VADA, “VADA's Fight to Defend the Franchise System,” September 2016 (est.), <https://vada.com/tesla/>.

## THE ANTITRUST REVOLUTION

brand failed but the brand's independent dealerships stayed open: for instance, by shifting to a related brand (for instance, a Hummer dealership might have been able to convert to a Chevrolet dealership when Hummer was shut down, as both brands belonged to General Motors).

A final argument was that independent dealers protect consumers from automakers, for instance by advocating on their behalf in matters such as warranty coverage and "lemon law" buybacks.<sup>23</sup>

### Tesla's Response

Tesla's principle argument to the Virginia DMV was that an independent dealer would fail in the marketplace as Tesla would provide vehicles to that dealer only at the same retail prices that Tesla lists on its website and charges any customer. A dealer would be unable to mark-up its Tesla vehicles as customers could simply go online to obtain their Tesla at the lower, retail price. Thus, an independent Tesla dealership would not be economically viable. Tesla argued that discounting its prices for a new franchised dealer sales channel would be costly to Tesla and would threaten certain important features of its sales model, such as its no-haggle price promise.<sup>24</sup>

With respect to price competition, Tesla explained that the dealers' argument that independent dealers would increase price competition in new auto sales confused intrabrand competition with interbrand competition. The entry of Tesla increases interbrand competition between Tesla and BMW, Ford, Honda, and other auto manufacturers. It is certainly true that a system of independent franchised dealers needs competition between nearby competing dealers of the same make (intrabrand competition) in order to keep the retail margin on their vehicles at competitive levels. Recall that the manufacturer does not set the final price; a separate firm—the dealer—chooses the retail price. Without intrabrand competition, a monopoly dealer could exercise market power and charge a monopoly retail margin, thus putting its manufacturer in a poor competitive position versus rival manufacturers.

Because Tesla is vertically integrated into retailing, it can eliminate this "double marginalization,"<sup>25</sup> and so reduce retail margins, which thus

<sup>23</sup> "Lemon laws" are consumer protection laws that have been passed in all 50 states to ensure that manufacturers respond adequately to consumer complaints with regard to defective vehicles (Delacourt, 2007).

<sup>24</sup> For instance, there would be nothing to stop an independent Tesla dealer from offering consumers incentives to buy immediately, which would thereby re-introduce price negotiation into the sales process. For example, an independent dealer that officially adheres to a recommended selling price could still offer a potential customer a \$300 Amazon gift card if the customer buys the same day. If that did not work, the dealer could offer a \$500 card, then a \$550 card, etc.

<sup>25</sup> "Double marginalization" occurs when both the manufacturer and its dealers seek to maximize their profits individually through their control of wholesale prices and retail mark-ups, respectively. Compared to a system in which final selling prices are under the control of a single economic entity, double marginalization results in fewer sales and higher prices to ultimate purchasers. See Viscusi et al. (2000, pp. 221–223).

Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

intensifies interbrand competition to the benefit of consumers. The dynamics of intrabrand competition are irrelevant to Tesla under its direct sales model.

Arguments that independent dealers provide a better quality service to consumers—by investing in their local community, staying open after a manufacturer’s bankruptcy, or understanding the local community’s financing needs—are familiar arguments that have been put forward by dealer associations and their advocates in other states.<sup>26</sup> One response to such arguments is that consumers are the best judge of the quality of Tesla’s service. If customers do not like Tesla’s products and sales model, they will not buy Tesla cars, and Tesla will fail. Such a development hurts Tesla but not consumers.

The dealers’ arguments are weak as a matter of economic theory as well. For instance, the argument that—under the same economic conditions and profit opportunities—-independent retail outlets will invest more in their communities than do chain outlets requires specifically different incentives, yet marketing and investment incentives are very similar across ownership types. Theory tells us that investments will be determined by their profitability, which, under many assumptions, is the same for a local business or a vertically integrated one. Furthermore, as local dealerships are bought by larger chains, fewer dealerships are in fact an independent local business.

It is further difficult to build an economic theory that predicts that the support of local charities (e.g., Girl and Boy Scouts) will be different by corporate ownership if the effect of such donations is to build local goodwill that translates into sales. If both ownership types profit from goodwill, and both face the same cost to create it, they will both adopt the same philanthropic strategy. Of course, if the state protects a business from competition so that it can charge supracompetitive prices, then it has excess profit that it can use to make more donations. However, simple economic models show that consumers would save money in total if they made the same level of donations themselves but paid a lower price for their cars.

Tesla argued that there is no evidence to support VADA’s claims that independent dealers are more likely to stay in business if Tesla goes bankrupt or are better able to tailor financing offers to their customers. Dealers have no ability to care for owners of a vehicle whose manufacturer has gone out of business unless the manufacturer has taken steps to enable that. For example, some franchised Hummer dealers were able to convert their dealerships to other General Motors brands when Hummer was discontinued, but only because General Motors (which owned Hummer) facilitated that conversion. When Saab (which had no other brands) went bankrupt in 2011, nearly all of its dealerships quickly closed.

With respect to financing, Tesla explained that the auto financing market is competitive and Tesla has had no difficulty identifying partners

---

<sup>26</sup> These arguments are well summarized in Keller and Elias (2014).

## THE ANTITRUST REVOLUTION

to finance customer purchases, whatever their credit needs. Tesla believes that its \$0 mark-up on auto loans may make it a less costly intermediary for financing than are most franchised dealers. Dealer mark-ups on financing can be substantial. Baines and Courchane (2014, p. 116) find a median dealer mark-up on new car loans of \$782; 25% of loans had a mark-up of \$1,473 or more.

VADA's final argument was that independent dealers can protect consumers from automakers. This argument also has come up in other matters. In 2016, a GM spokesperson went so far as to suggest that the "franchise laws were created to provide protection for the consumer . . ." <sup>27</sup> This claim would likely have surprised authorities back when franchise laws were still relatively new. The Federal Trade Commission (1939) expressed concern that *franchised dealers* were harming consumers: for instance, through padding invoices, price fixing, collusive bidding on used cars, and selling demonstration vehicles as new cars. <sup>28</sup> State lemon laws and automobile safety and environmental regulations are the principle means of protecting consumers from harm by automakers. Dealer licensing laws have no such purpose.

Indeed, a manufacturer that is intent on running a successful business would want to develop a reputation for quality service and repairs—regardless of whether the consumer continued to live in a particular geography or not. Manufacturers have powerful incentives to ensure that consumers are well served and well serviced. An intermediary may actually dilute the effort to achieve this goal.

Tesla argues that its incentives to provide excellent service to its customers are particularly high, since its autos are a new and novel product. It has a clear incentive to carry out repairs quickly and well because it faces no externalities: A good brand with a good reputation for quality redounds directly to the firm. If Tesla fails to provide adequate warranty repairs for its cars, consumers will find out rapidly, and the brand will be harmed. While a franchised dealer earns a profit from warranty repairs, it has imperfect incentives to preserve brand reputation with good service because it understands that other dealers and the manufacturer may share in the benefits of its efforts. For example, when a customer moves and transfers her business to a new dealer, her original dealer loses future profits from that customer. When a new customer arrives for warranty work, the dealer knows that the customer may or may not stay in the area, and the dealer is therefore not incentivized to provide enough service. The manufacturer, on the other hand, has incentives to make sure that each store provides fully adequate service to each customer, no matter which store is visited.

A final argument that is made by Tesla is that it should not be required to operate a second—and more complex—sales channel to sell its vehicles.

<sup>27</sup> Hybrid Cars, "GM Has Lobbied against Tesla's Direct Sales Model in at Least Five States," February 29, 2016.

<sup>28</sup> FTC (1939, pp. 1074–1075, 1077).



## Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

If Tesla were to establish an independent franchised dealer—for instance, in Virginia—it would then need to develop special “wholesale” pricing for that dealership and define complex contractual requirements to ensure a uniform experience for Tesla customers. If Tesla were required to sell vehicles at a wholesale price to an independent dealer, it would then be difficult contractually to obligate the dealer to abide by Tesla’s no-haggle pricing policy. Independent businesses may generally set any prices that they want. As a result, a dual-channel sales model, in addition to being costly and complex, could quickly become a strategic problem for the company. And, of course, because many states have laws that bar a manufacturer from selling in competition with its franchised dealers, if Tesla were to establish a franchised dealership in one state, that could put its entire store network in jeopardy.

### OUTCOME

---

Tesla’s dealer licensing troubles have continued. As of mid-2017, VADA’s appeal is still pending, and Tesla has not proceeded with opening its Richmond, Virginia, store. Meanwhile, in the first six months of 2017, new legislative efforts that are designed in some cases to block (Louisiana) and in others to allow (Connecticut, Indiana, and Wyoming) Tesla’s sales have moved forward (Indiana, Louisiana, Wyoming) or stalled (Connecticut).<sup>29</sup>

### CONCLUSION

---

VADA’s arguments in the Virginia matter are similar to those that Tesla has confronted in other states. From the perspective of economics, the arguments are weak and not well supported by theory. This raises the question of why VADA, along with dealer associations in other states, has pursued these cases. If they were acting in the public interest, they would not.

An alternative theory to consider is that of “regulatory capture,” which was first developed by Stigler (1971). The regulatory capture theory predicts that over time the regulator comes to believe in and represent the interests of the industry that it is regulating, rather than the interests of consumers. Because the state actions described here benefit auto dealers and not consumers, capture is the likely explanation for attempts to block the entry of Tesla.

Tesla’s entry into the development, production, and sale of motor vehicles enhances competition in the plug-in electric vehicle segment specifically and motor vehicles more broadly. For instance, its entry was cited by

---

<sup>29</sup> The new Indiana law bars direct sales but carves out an exception for Tesla (LegisScan, Indiana HB 1592). See also, LegiScan Connecticut HB 7097; LegiScan, Louisiana HB 167; LegiScan, Wyoming SF0057.

THE ANTITRUST REVOLUTION

**TABLE 17-2**  
**Electric Vehicle Manufacturer and Annual Model Sales**

Manufacturer	Model	2012	2013	2014	2015	2016
		Total Sales	Total Sales	Total Sales	Total Sales	Total Sales
BMW	330e					870
BMW	X5 xDrive40e				892	5,995
BMW	i3			6,092	11,024	7,625
BMW	i8			555	2,265	1,594
Daimler	MercedesB-ClassED/ B250e			774	1,906	632
Daimler	MercedesS550/ S550HPHV				118	550
Daimler	smartED		923	2,594	1,387	657
FiatChrysler	Fiat500e		2,310	5,132	6,194	5,330
Ford	C-MaxEnergi	2,374	7,154	8,433	7,591	7,957
Ford	FocusElectric	680	1,738	1,964	1,582	901
Ford	FusionEnergi		6,089	11,550	9,750	15,938
General Motors	CadillacELR		6	1,310	1,024	534
General Motors	ChevroletBoltEV					579
General Motors	ChevroletSparkEV		539	1,145	2,629	3,035
General Motors	ChevroletVolt	23,461	23,094	18,805	15,393	24,739
Honda	AccordPHV		526	449	64	
Honda	FitEV	93	569	407		
Hyundai	SonataPHV				160	3,095
Kia	SoulEV			359	1,015	1,728
Mitsubishi	i-MiEV	588	1,029	196	115	94
Nissan	LEAF	9,819	22,610	30,200	17,269	14,006
Other					507	426
Tesla	ModelS	2,650	17,650	16,689	25,202	28,896
Tesla	ModelX				214	18,223

Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

Toyota	PriusPHV/Prius Prime	12,750	12,088	13,264	4,191	2,474
Toyota	RAV4EV	192	1,096	1,184		
Volkswagon	AudiA3 Sportbacke-tron				49	4,280
Volkswagon	Porsche CayenneS-E			100	1,103	2,111
Volkswagon	Porsche PanameraS-E		86	879	407	393
Volkswagon	VWe-Golf			357	4,232	3,937
Volvo	XC90				86	2,015
<b>Total</b>	<b>All</b>	<b>52,607</b>	<b>97,507</b>	<b>122,438</b>	<b>116,369</b>	<b>158,614</b>

Source: Inside EVs Monthly Plug-In Sales Scorecard, 2012-2016, available at <http://insideevs.com/monthly-plug-in-sales-scorecard>.

GM as its motivation for developing the Chevrolet Volt.<sup>30</sup> Now consumers can choose between Tesla's cars, GM's Chevrolet Volt and its new Bolt, and a substantial number of other new electric vehicles. Table 17-2 shows that while Tesla was the leading supplier of electric vehicles in 2016, sales and shares are highly fluid in this young segment of the auto industry. Of the top ten best-selling electric vehicle models in 2016, six were not even sold in the U.S. in 2012.<sup>31</sup> Figure 17-1 shows that total U.S. sales of plug-in electric vehicles increased fairly steadily from 2012 to 2016. With the introductions in 2017 of GM's Chevrolet Bolt, Tesla Model 3, and an updated Nissan LEAF, sales of electric vehicles are expected to increase further in 2017. This race to introduce innovative electric vehicles is all to the good and precisely how competition benefits consumers.

Incumbent dealers and automakers can lessen this competition for electric vehicle sales by supporting laws to block Tesla and hinder its ability to sell and service its cars. Dealers are threatened by Tesla's direct sales model because it is successfully competing with—and putting pressure on—the basic pillars of the franchised dealer model, including: haggling over price; a commissioned sales force; large inventories parked at sites with relatively low foot traffic; and high margin add-ons at the time of sale. Manufacturers, such as GM, are likewise threatened by Tesla's success in innovation and in the manufacture of its electric vehicles.<sup>32</sup>

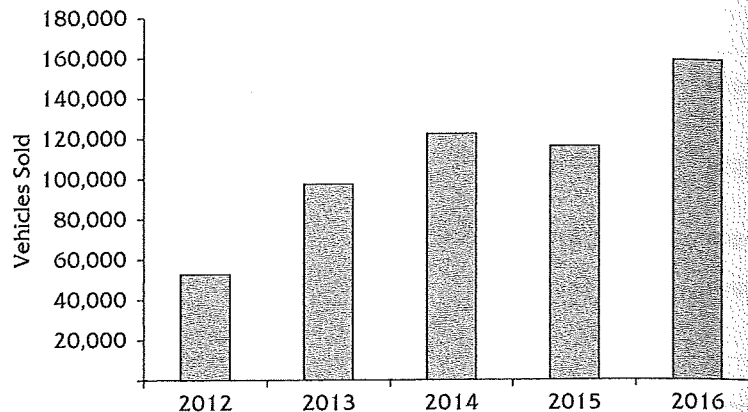
<sup>30</sup> Hybrid Cars, "GM Has Lobbied against Tesla's Direct Sales Model in at Least Five States," February 29, 2016.

<sup>31</sup> Audi A3 Sportback e-tron, BMW i3, BMW X5 xDrive40e, Fiat 500e, Ford Fusion Energi, and Tesla Model X.

<sup>32</sup> Manufacturers' opposition to Tesla's direct sales model is especially ironic in light of their efforts in the late 1990s to do much the same thing. See Kwoka (2001, p. 65).

## THE ANTITRUST REVOLUTION

FIGURE 17-1 Plug-In Electric Vehicle Sales, 2012–2016



Sources: [a] Inside EV, Monthly Plug-In Sales Scorecard 2012–2016, available at <http://insideevs.com/monthly-plug-in-sales-scorecard>.

It is perhaps not surprising that dealers and GM have worked so hard to block Tesla from selling its vehicles. Both dealers and GM have argued that their concern is that competition occur on “a level playing field,”<sup>33</sup> where a level playing field is defined to ban Tesla’s innovative sales model. A more likely explanation is that an innovative sales model that consumers might prefer to the existing franchise dealer model could hurt incumbent dealers and competing electric vehicle manufacturers that attempt to sell cars through those franchised dealers.

This explanation is consistent with the Pyrrhic resolution Tesla has achieved in multiple states, whereby Tesla gains approval to open a small number of stores in exchange for a ban on any future automaker’s entering and competing for sales. While addressing Tesla’s immediate needs, this blocking of future entry reinforces the protections for incumbent dealers and their automakers—at the expense of consumers. These outcomes also ignore the broader antitrust issues that are raised by auto dealers’ willingness and ability to control how manufacturers can retail their vehicles in the U.S.

Staff from the FTC have concurred that the issue is broader than just Tesla’s ability to sell its cars. They have explained that absent any legitimate public purpose, consumers are better off if manufacturers can distribute vehicles in the manner of their choosing.<sup>34</sup>

Concern that vehicle dealer licensing laws have gone too far to protect dealers at the expense of consumers is decades old and widespread in the economics literature.<sup>35</sup> By allowing their vehicle dealer licensing laws to be

<sup>33</sup> GM Public Policy, “A Level Playing Field,” March 29, 2016; *St. Louis Post-Dispatch*, “Auto Dealers Sue Missouri Over Tesla Car Sales,” January 23, 2015.

<sup>34</sup> FTC Blog by Marina Lao, Debbie Feinstein, and Francine Lafontaine, “Direct-to-consumer auto sales: It’s not just about Tesla,” May 11, 2015.

<sup>35</sup> Kessler (1957, p. 1189); Smith (1982, p. 154); Mathewson and Winter (1989, p. 425); Lafontaine and Scott Morton (2010, pp. 234–235).

## Case 17: Retail Auto Sales: Tesla v. State Vehicle Franchise Laws

hijacked to protect incumbent franchised dealers and their manufacturers, states are picking winners and losers in the U.S. auto industry and thereby harming Tesla specifically and competition generally. On this topic, the FTC put it well:<sup>36</sup>

“FTC staff offer no opinion on the question of whether Tesla or other manufacturers would be best served by selling their products directly or through independent distributors. Nor do we express a view as to whether any particular motor vehicle manufacturer should succeed or fail. Our principal point is this: absent some legitimate public purpose, consumers would be better served if the choice of distribution method is left to motor vehicle manufacturers and the consumers to whom they sell their products.”

This position comports with the basic lessons of microeconomics. While there are arguably credible reasons to restrict an automaker with existing franchised dealer relationships from selling in direct competition with those dealers, there is no reason to require an automaker that has no franchised dealers to enter into franchise arrangements in order to sell its cars. Consumers are made better off from their ability to choose the selling mode and vehicle that they prefer, rather than having incumbent dealers, rival auto manufacturers, or state governments choose it for them.

## REFERENCES

- Baines, Arthur P. and Dr. Marsha J. Courchane. 2014. “Fair Lending: Implications for the Indirect Auto Finance Market,” prepared for American Financial Services Association, November 19, <https://www.crai.com/sites/default/files/publications/Fair-Lending-Implications-for-the-Indirect-Auto-Finance-Market.pdf>.
- Beard, T. Randolph, George S. Ford, and Lawrence J. Spiwak. 2015. “The Price Effects of Intra-Brand Competition in the Automobile Industry: An Econometric Analysis,” *Phoenix Center Policy Paper*; No. 48, March.
- Berry, Steven, James Levinsohn, and Ariel Pakes. 1995. “Automobile Prices Market Equilibrium,” *Econometrica*, 63(4): 841–890.
- Blair, Roger D. and Francine Lafontaine. 2005. *The Economics of Franchising*. New York, New York: Cambridge University Press.
- Cahill, Eric, Jamie Davies-Shawhyde, and Thomas S. Turrentine. 2014. “New Car Dealers and Retail Innovation in California’s Plug-in Electric Vehicle Market,” Working Paper UCD-ITS-WP-14-04, University of California Davis, Institute of Transportation Studies, October.
- Corrado, Carol, Wendy Dunn, and Maria Otoo. 2006. “Incentives and Prices for Motor Vehicles: What has been happening in recent years?,” Finance and Economics Discussion Series 2006-09, Board of Governors of the Federal Reserve System, <https://www.federalreserve.gov/pubs/feds/2006/200609/200609pap.pdf>.

<sup>36</sup> FTC Staff Comment Before the New Jersey General Assembly Regarding Assembly Bills 2986, 3096, 3041, and 3216, May 16, 2014, p. 8.

## THE ANTITRUST REVOLUTION

- Dunn, Wendy E. and Daniel J. Vine. 2016. "Why are Inventory-Sales Ratios at U.S. Auto Dealerships so High?," Finance and Economics Discussion Series 2016-047, Board of Governors of the Federal Reserve System, <https://www.federalreserve.gov/econresdata/feds/2016/files/2016047pap.pdf>.
- Federal Trade Commission. 1939. "Report on Motor Vehicle Industry." June 5.
- Keller, Maryann and Kenneth Elias. 2014. "Consumer Benefits of the Dealer Franchise System," prepared for the National Automobile Dealers Association, May 27.
- Kessler, Friedrich Kessler. 1957. "Automobile Dealer Franchises: Vertical Integration by Contract," *Yale Law School Faculty Scholarship Series*, Paper 2727, pp. 1135–1190.
- Kwoka, John E. 2001. "Automobiles: The Old Economy Collides with the New," *Review of Industrial Organization*, 19(1): 55–69.
- Kwoka, John E. 2014. Brief as Amicus Curiae Supporting Respondents in *Massachusetts State Automobile Dealers Association et al. v. Tesla Motors MA, Inc. et al.*
- Lafontaine, Francine and Fiona Scott Morton. 2010. "State Franchise Laws, Dealer Terminations, and the Auto Crisis," *Journal of Economic Perspectives*, 24(3): 233–250.
- Lafontaine, Francine and Margaret E. Slade. 2008. "Empirical Assessment of Exclusive Contracts." In *Handbook of Antitrust Economics*, ed. Paolo Buccirossi. Cambridge: MIT Press.
- Lapidus, Gary. 2000. "eAutomotive: Gentlemen, Start Your Search Engines," *Goldman Sachs Investment Research*, January.
- Lunetta, Mary and Gina Coplon-Newfield. 2016. "REV UP Electric Vehicles, Multi-State Study of the Electric Vehicle Shopping Experience," Sierra Club.
- Mathewson, Frank and Ralph Winter. 1989. "The Economic Effects of Automobile Dealer Regulation," *Annales d'Economie et de Statistique*, No. 15/16, pp. 409–426.
- Rogers, Robert P. 1986. "The Effect of State Entry Regulation on Retail Automobile Markets." Bureau of Economics Staff Report to the Federal Trade Commission, January.
- Saloner, Garth, Michael Spence, and Eric Marti. 2000. "Disintermediation in the U.S. Auto Industry," *Graduate School of Business, Stanford University*, Case EC-10, February.
- Scott Morton, Fiona, Florian Zettelmeyer, and Jorge Silva-Risso (2011) "What Matters in a Price Negotiation: Evidence from the US Auto Retailing Industry," *Quantitative Marketing and Economics*, 9: 365–402.
- Smith, Richard L. 1982. "Franchise Regulation: An Economic Analysis of State Restrictions on Automobile Distribution," *Journal of Law & Economics*, 25(1): 125–157.
- Stigler, George J. 1971. "The Theory of Economic Regulation," *The Bell Journal of Economics and Management Science*, 2(1): 3–21.
- Viscusi, W. Kip, Joseph E. Harrington, and John M. Vernon. 2000. *Economics of Regulation and Antitrust*, 3rd edition. Cambridge, Massachusetts: The MIT Press.