

Automotive Finance

Will dealership finance reserve go the way of mortgage yield spread premiums?

By Arthur P. Baines and Dr. Marsha J. Courchane

March 2013

The conclusions set forth herein are based on independent research and publicly available material. The views expressed herein are the views and opinions of the authors and do not reflect or represent the views of Charles River Associates or any of the organizations with which the authors are affiliated. Any opinion expressed herein shall not amount to any form of guarantee that the authors or Charles River Associates has determined or predicted future events or circumstances and no such reliance may be inferred or implied. The authors and Charles River Associates accept no duty of care or liability of any kind whatsoever to any party, and no responsibility for damages, if any, suffered by any party as a result of decisions made, or not made, or actions taken, or not taken, based on this paper. Detailed information about Charles River Associates, a registered trade name of CRA International, Inc., is available at www.crai.com.

Executive summary

On March 21, 2013, the Consumer Financial Protection Bureau (CFPB) issued a bulletin on indirect auto lending and compliance with the Equal Credit Opportunity Act (ECOA). The bulletin makes clear that indirect auto lenders are liable under the ECOA for pricing disparities caused by the lenders' policies governing dealership compensation for arranging the financing of the customer's vehicle. This bulletin appears to parallel the CFPB's enforcement actions against lenders in the mortgage brokerage space. While much research has focused on discrimination in housing markets, far less has been done in the automotive retail market. In this paper, we analyze the historical profitability achieved by dealerships using pricing discretion on each of the components of the vehicle purchase, and also contrast the important but distinct roles of the dealership and mortgage broker in the markets in which they operate. We find that at franchised dealerships, the sale and financing of new and used vehicles are, on average, priced at a level that is not sufficient to cover their costs, much less generate a profit and pay a return on invested capital. During the period analyzed (2002–2011), all dealership net profits came from the servicing of vehicles after the sale. From the customer's perspective, the cost of purchasing and financing a vehicle is apparently being subsidized by future repair and maintenance costs, in an interesting twist on the old expression "buy now, pay later." These findings are consistent with the observed market practice that dealerships and consumers are bundling and pricing multiple products and services in one transaction. Given these pricing dynamics, attempts to evaluate the price of financing in isolation from the prices of other products and services bundled together is fraught with challenges and increases the potential for drawing incorrect conclusions.

Introduction

As the Consumer Financial Protection Bureau implements a new regulatory framework for lenders and the Federal Trade Commission (FTC) considers new rule-making authority granted under Dodd-Frank over automotive dealerships, many participants in the automotive retail market appear to be poised for change in how dealerships are compensated for arranging consumer financing for the purchase of vehicles. At industry forums and conferences, participants speculate about dealership pricing discretion and a future where dealerships are paid "super-flats" in lieu of today's finance reserve.¹

These changes likely reflect both the expiration of major settlements that resulted from litigation brought under the ECOA over the apparent disparate impact of dealership finance reserves on protected groups and from the significant regulatory changes that have been implemented in mortgage markets with respect to broker compensation. Many commentators draw analogies between automotive finance and mortgage finance and use similar analytic frameworks to evaluate the impact on market participants: consumers, dealerships, and lenders. While the economic literature is relatively extensive with regard to housing markets and discrimination, significantly less has been studied and written about the automotive retail market and discrimination. Researchers have examined individual components of the transaction: racial differences in prices paid by Pinelopi Goldberg (1996) and Fiona Scott Morton, Florian Zettelmeyer, and Jorge Silva-Risso (2003); the impact of manufacturer incentives by Meghan Busse, Zettelmeyer, and Silva-Risso (2004); differences in APRs by Kerwin Charles, Erik Hurst, and Melvin Stephens Jr. (2008); and differences in finance reserves by Mark Cohen (2007).

¹ Finance reserve is the difference between the contract rate (annual percentage rate) established by the dealership and the "buy" rate (wholesale rate) established by the lender. It is also commonly called the "Yield Spread Premium" or "Dealership Reserve."

This paper presents an alternative analytical approach that attempts to frame vehicle finance in the context of the overall vehicle purchase transaction. This paper discusses the historical profitability achieved by dealerships using pricing discretion on each of the components of the vehicle purchase and contrasts the important but distinct roles of the dealership and mortgage broker and the systems in which they operate. Finally, it contemplates the potential implications of future ECOA-related regulatory regimes on dealerships, finance companies, consumers, and vehicle manufacturers.

Current regulatory environment

Notwithstanding the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), the regulation of the vehicle sales market is somewhat splintered, with multiple agencies responsible for various, and sometimes overlapping, aspects of the market.

With the creation of the CFPB, examination and enforcement action with respect to ECOA and Regulation B migrated from the FTC to the CFPB with respect to medium and large-sized banks, credit unions, and finance companies. The CFPB officially began its oversight functions on July 18, 2011 and issued its *Supervision and Examination Manual*. The manual addresses numerous aspects of automotive finance including third party notification to dealerships by automotive lenders, consumer notification of risk-based pricing by dealerships and automotive lenders, and a hypothetical example of disparate treatment by automotive lenders. Bloomberg recently reported that at least four banks have received letters from the CFPB indicating that the banks may have violated ECOA and they may face enforcement action related to their dealership compensation programs.²

The regulatory oversight of dealerships generally remains the purview of state agencies and the FTC, as dealerships are exempted from supervision by the CFPB.³ However, the Dodd-Frank Act gives the FTC additional rulemaking authority with respect to dealerships. To that end, the FTC conducted a series of roundtable discussions during 2011 for industry stakeholders focused on dealership practices. The first roundtable in Detroit focused on dealership sales and financing of vehicles. A second roundtable in San Antonio looked at dealership practices with respect to military personnel, consumer literacy, and fair lending issues. A third roundtable in Washington, DC, considered issues related to vehicle leasing. Dealership compensation for arranging customer financing was a prominent topic at the roundtables, and consumer advocates and regulators expressed concern that dealership discretion with regard to establishing the contract rates (or APR) may harm protected classes under ECOA.⁴

This is not a new concern for the industry or regulators. Regulators have investigated these practices in the past, and alleged ECOA violations by automotive finance companies were litigated extensively in the early 2000s. Many regulators and consumer advocates point to the information obtained in these previous inquiries as highly suggestive of discrimination in the setting of contract rates on vehicle installment contracts, particularly with respect to race and ethnicity. In recent years, the Department of Justice (DOJ) and the CFPB have dedicated resources to civil rights enforcement actions particularly with regard to fair lending. Numerous

² Carter Dougherty, "Consumer Bureau Said to Warn Banks of Auto Lending Suits," Bloomberg.com, February 21, 2013.

³ A dealership may be subject to CFPB oversight if the dealership acts as a creditor.

⁴ Transcripts for the roundtables can be found at: <http://www.ftc.gov/bcp/workshops/motorvehicles/>, accessed on March 22, 2013.

consent decrees have been entered by the DOJ and mortgage lenders; see CRA's publication: "Settlements."⁵ An area of particular focus has been the wholesale mortgage channel, through which mortgage brokers sourced loans to lenders. Regulators have imposed millions of dollars in penalties on banks and lenders, under the theory that their policies allowed mortgage brokers the discretion to charge borrowers different fees and the brokers applied that discretion in a manner that violated ECOA. On March 21, 2013, the CFPB issued a bulletin on indirect auto lending and compliance which clarifies the CFPB's position that the same theory applies to indirect auto lenders.⁶

In recent comments reported by Bloomberg, the CFPB Director Richard Cordray emphasized the agency's "authority to pursue auto lenders whose policies harm consumers through unlawful discrimination."⁷ Moira Vahey, a CFPB spokeswoman, said a "mix of authorities" will allow the CFPB "to promote a level playing field throughout the indirect auto lending market."⁸

Achieving these highly desirable outcomes requires a thorough understanding of the automotive retail space and, specifically, the vehicle purchase transaction. To advance that understanding, we explore the interaction between the dealership and consumer: the products and services provided by the dealership and the prices paid by consumers for those products and services. We believe the results of these analyses have significant implications for the regulatory authorities responsible for this market and demonstrate the significant challenge faced by regulators to achieve these objectives without unintended consequences.

The role of the dealership

In the US, vehicles are sold by franchised or non-franchised (independent) dealerships. Franchised dealerships have agreements with vehicle manufacturers to sell the new vehicles of a specific "make" (i.e., Chevrolet, BMW, or Toyota). Because most states prohibit manufacturer-owned dealerships and the direct sale of vehicles by the manufacturer to the consumer, franchised dealerships account for essentially 100% of new vehicle sales.⁹ They also sell a significant portion of all used vehicles. Non-franchised dealerships only sell used vehicles. In our analysis, we focus only on franchised dealerships, given their large share of the overall vehicle market, the importance of the relationship between the dealership and manufacturer, and the lack of available financial data for non-franchised dealerships.

Dealerships are not brokers

While this may seem obvious to some readers, a number of commentators have compared dealerships to mortgage brokers, presumably because both arrange financing for consumers in their respective markets. Beyond that apparent similarity, the comparison falls short. Dealerships stock inventories of vehicles and parts that they sell to consumers. Collectively, the inventory of dealerships in the US included approximately three million new vehicles as of November 1, 2012, roughly a two-month supply of new vehicles.¹⁰ Dealerships purchase and

⁵ "Fair Lending Risk Management: Lessons from Recent Settlements," *CRA Insights: Financial Economics*, November 2011, <http://www.crai.com/uploadedFiles/Publications/FE-Insights-Fair-Lending-Risk-Management-1112.pdf>.

⁶ "Indirect Auto Lending and Compliance with the Equal Credit Opportunity Act," CFPB Bulletin 2013-02, March 21, 2013.

⁷ Carter Dougherty, "Banks to be Held Liable for Biased Auto Loans Under CFPB Rules," Bloomberg.com, March 21, 2013.

⁸ Ibid.

⁹ At any point in time, there exist a few manufacturer-owned dealerships—these situations are generally temporary.

¹⁰ *Automotive News*, November 12, 2012, p. 28.

stock used vehicles directly from consumers, as well as from wholesale auctions. Dealerships sold 15.6 million used retail vehicles in 2011. In addition to arranging customer financing, dealerships' Finance and Insurance (F&I) departments sell consumers warranty and insurance products and service contracts. Dealerships make investments in facilities, tools, and computers required to service vehicles. In 2012, dealerships maintained a \$5.2 billion inventory of vehicle replacement parts.¹¹ Most state law and manufacturer franchise agreements require a dealership to have the capability to service vehicles. In order to provide this range of products and services, dealerships employed on average 53 people per dealership and maintained an employee payroll of almost \$46 billion in 2011.¹² Additionally, franchise agreements commonly require dealerships to maintain certain levels of capitalization, sales penetration, profitability, and facility investment. As a result, dealerships require a significant amount of capital to fund physical facilities, inventory, payroll, and working capital. This differs significantly from a typical mortgage wholesale channel broker.

Dealerships bundle

Dealerships bundle products and services together in each transaction with a consumer. So while the transaction may begin with the test drive of a new or used vehicle, the transaction is likely to also include a bundle of several products and services, as well as service and maintenance of the vehicle post-sale. The Center for Responsible Lending reports that JD Powers Associates estimates that approximately 79% of new vehicle financing is arranged through the dealership.¹³ Industry statistics suggest upwards of 50% of new vehicle customers trade in a vehicle as part of the transaction. Some dealership groups report the average transaction includes 1.4 F&I products.¹⁴ For example, Group 1 recently reported nearly 40% of its new vehicle sales included an extended service contract, and 22% of such sales included Guaranteed Auto Protection (GAP) insurance.¹⁵ From the perspective of the dealership, each customer represents the potential to sell a set of products and services. The trade-offs can be numerous and complicated. One example of the many trade-offs the dealership must weigh is the relatively common scenario in which the consumer is interested in a vehicle that has the option of a manufacturer-sponsored cash rebate or a special finance rate. Presumably, consumers make this choice based on their specific circumstances, but the consumer's decision has implications on pricing options available to the dealership. If the consumer chooses the special finance rate, the dealership will not likely have the option to realize a finance reserve, as they are normally precluded by the manufacturer. On the other hand, if the consumer chooses the cash rebate, the dealership may have the option to realize a finance reserve, assuming the dealership arranges financing for the customer. This is just one example of a number of factors that influence a dealership's pricing of the various components of the transaction.

¹¹ NADA DATA 2012, p. 12.

¹² Ibid, p. 15.

¹³ Delvin Davis and Joshua M. Frank, "Under the Hood: Auto Loan Interest Rate Hikes Inflate Consumer Costs and Loan Losses," Center for Responsible Lending, April 19, 2011.

¹⁴ "Public Group's Dual Focus: Car Sales, F&I," *Automotive News*, August 3, 2011.

¹⁵ "Weekly F&I Report," *Automotive News*, November 14, 2012.

Additional factors may include:

- Dealership inventory of new and used vehicles
- Year-end model changeovers and other cyclical factors
- Existence of manufacturer-sponsored dealership incentives
- Other forms of manufacturer subsidies
- Customer preferences with respect to:
 - Trading in their vehicle or selling it themselves
 - Servicing their vehicle at the dealership
 - The desired make, model, and options
 - Purchase or lease
 - Comparing a transaction across dealerships
 - Timing of the purchase
 - Access to financial resources

Given the unique circumstances surrounding these transactions at the dealership, the comparison to mortgage brokers appears superficial. The comparison might begin to make sense if the house-buying consumer purchased the real estate from an inventory of such properties owned by the broker, while at the same time the broker bought the consumer's current property, sold the consumer a property and casualty insurance policy, a warranty, and service contract on the house, and then eight months after the sale the homeowner called the broker to send someone to paint the house and to fix a leaking roof. In a vehicle purchase, the dealership and the consumer are simultaneously pricing multiple products and services in a single transaction, while the mortgage broker and the consumer price a single product in a transaction that is dependent on a series of related but separate transactions. Both markets are highly complex, but starkly different.

The bundling of multiple products and services by the dealership in a single transaction raises a number of important issues for industry stakeholders and regulators. In the next section, we attempt to separate these products and services and look at how they are priced, the cost structures and other factors influencing those prices, and the implications for the consumer and the dealership.

Measuring prices paid by consumers and dealer profitability

In order to conduct these analyses, reliable data are necessary. The primary data sources used in this paper are the financial statements of the four largest publicly-traded automotive groups: AutoNation, Penske Automotive, Sonic Automotive, and Group 1 Automotive.¹⁶ Additional data from the National Automobile Dealers Association (NADA) are used for comparative purposes. Additional sources are appropriately noted throughout the paper. There are several advantages and disadvantages of using the financial data from these four entities.

¹⁶ Financial statements for these four automotive groups are available through the Securities and Exchange Commission website: <http://www.sec.gov/edgar/searchedgar/companysearch.html>.

Collectively in 2011, they operated 674 franchises and sold approximately 604,000 new retail vehicles, approximately 5% of the overall retail market for new vehicles. Additionally, they represent a diverse mix of geographies and more than 40 vehicle brands (i.e., Ford, Chevrolet, Toyota, BMW, etc.). They are essentially “pure-play” automotive retailers in that they generally do not offer non-related products or services, and as a result, their financial statements are highly comparable and can be accurately aggregated into a single composite. Finally, they have a scale of operations that one could argue should make their cost structure relatively efficient. On the negative side, the vehicle brands they represent are likely a bit skewed to the import and luxury brands, relative to the overall US market. This likely implies that they arrange more leases than the average dealership and possibly buy and sell vehicles that are more expensive than the overall US market average. In addition, the financial statements from at least one of the entities include the results from a number of dealerships located outside the US.¹⁷ Finally, while these data are not transaction-level specific, they do provide an accurate aggregate picture from which to establish important insights.

For this analysis, we have constructed a composite income statement by aggregating the financial results of the four separate entities covering the 10-year period from 2002 through 2011. For dealerships and the broader economy, this period represents “the best of times and the worst of times.” In the middle part of the period, sales volumes hit a record high of almost 17 million new vehicles, riding a tide of relatively easy credit and home price appreciation, only to fall by almost 40% to approximately 10.4 million by 2009.¹⁸ During the Great Recession, commercial and consumer credit tightened significantly, General Motors (GM) and Chrysler underwent bankruptcy reorganizations, more than 1.5 million vehicles were repossessed annually, and more than 3,000 dealerships (approximately 15% of all dealerships) closed their doors. For dealerships that survived the downturn, 2011 was the most profitable year, on average, of the study period.¹⁹ Unless otherwise noted, all financial results presented below are based on the public dealership group composite income statement. See Appendix 1 for the full composite income statement and relevant computations.

Dealership net profitability

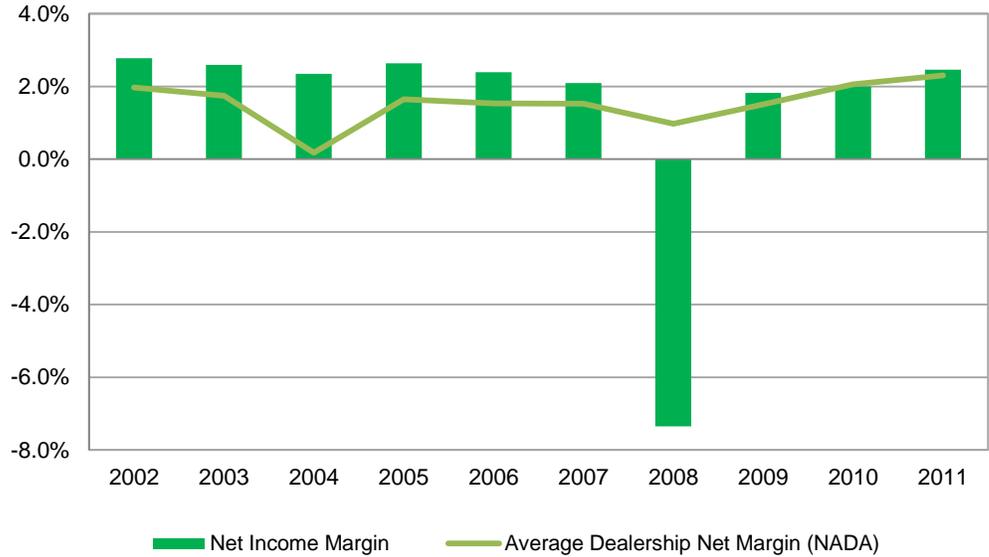
As a starting point to understand the market for purchasing new and used vehicles, dealerships’ bottom line profits are easily isolated. Net income margin shows a fairly consistent downward trend from 2.8% in 2002 to 2.0% in 2010, with the notable exception of 2008 when net margin was -7.4%, as shown in Chart 1. By way of comparison, NADA reports average dealer margins that are generally lower than those realized by the composite entities. This is consistent with the notion that these large dealership groups are relatively more efficient. The composite net margins over this period reflect the end result of nearly 12 million vehicle transactions between the dealerships and their customers where products and services were negotiated, bundled, and priced, as well as post-transaction services and parts sales. Below we attempt to unbundle the financial results around these products and services to understand where these profits are generated and what prices consumers pay for them.

¹⁷ Penske Automotive operates approximately 170 dealerships outside the US.

¹⁸ NADA DATA 2012, p. 9.

¹⁹ According to NADA, net pretax profit in 2011 was \$349,424 (in constant 1982 dollars), the highest of any year in the period. NADA DATA 2012, p. 3.

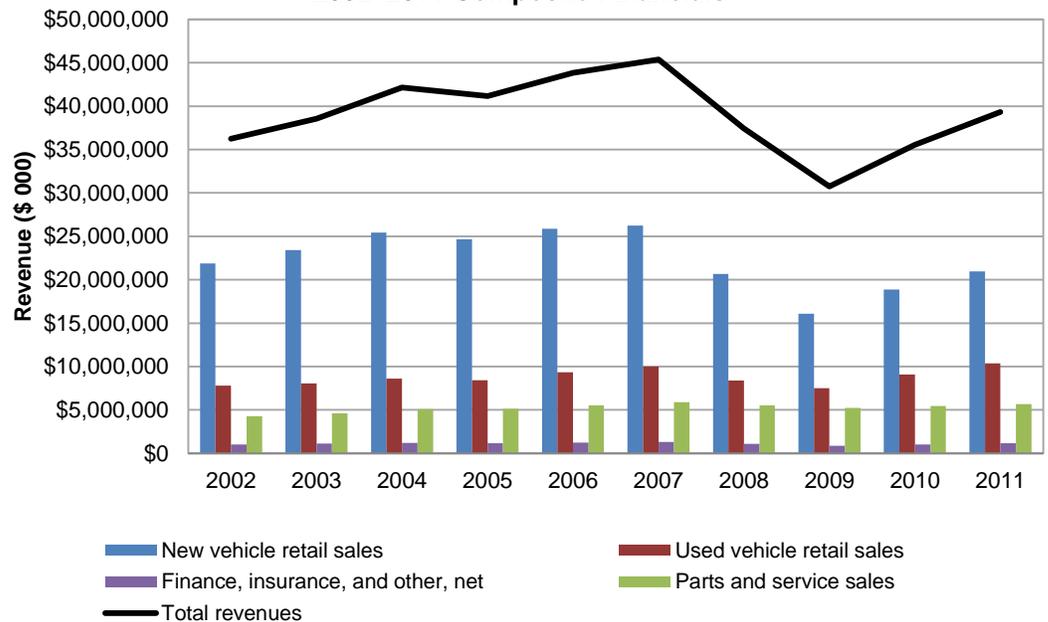
**Chart 1: Net Income Margin
2002–2011 Composite Financials**



Revenue

To begin the unbundling process, we consider total revenue as shown in Chart 2. Total revenue displays a pattern that appears to reflect broader economic activity with revenues growing through 2007, falling sharply in 2008 and 2009, and starting to recover in 2010. To a limited degree, revenue can be readily separated by product and service to the various departments at a dealership reflected on the income statement. These include the new vehicle, used vehicle, F&I, and service and parts departments. Chart 2 also presents the total revenue by department by year.

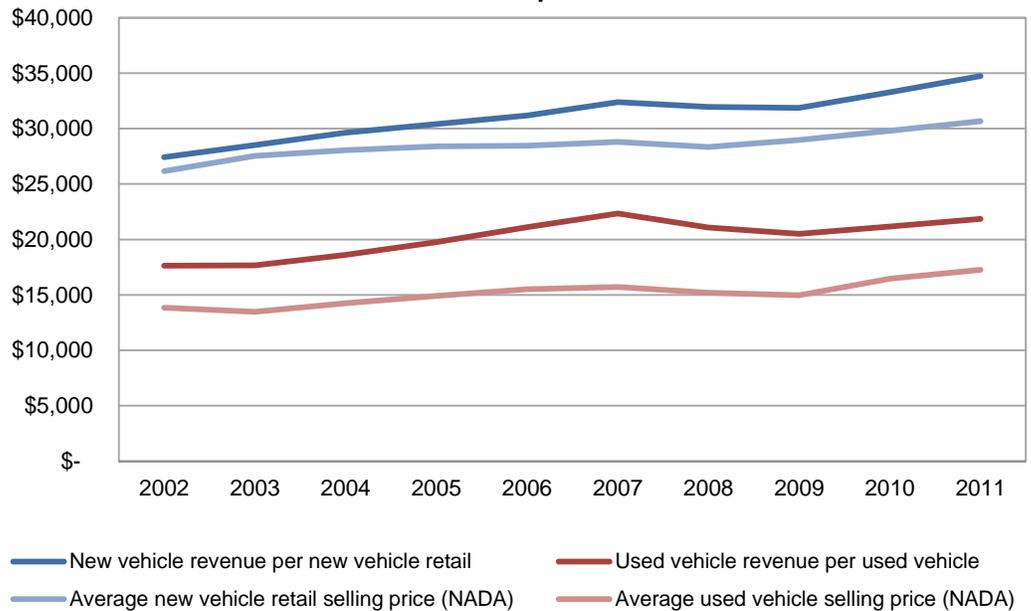
**Chart 2: Revenue by Department
2002–2011 Composite Financials**



On a revenue basis, there is significant disparity among the departments with F&I the smallest department generating about 3% of all revenue. Service and parts department revenue is also quite a bit smaller than the new and used departments. As we will see, these statistics belie the importance of F&I and service and parts to the dealership. Revenue in the new department is consistently larger than all other departments combined, even during 2009 and 2010 when new vehicle sales were at low levels relative to the rest of the period.

A more intuitive presentation of revenue is achieved on Chart 3, where we have expressed revenue from new and used vehicles on a per vehicle basis—essentially the average price paid by consumers for new and used vehicles.²⁰

**Chart 3: Total Revenue and Average Price Per New and Used Vehicle
2002–2011 Composite Financials**



Average prices reflected in the composite follow a similar pattern to the average vehicle prices reported by NADA, although the composite is consistently higher for both new and used vehicles, likely reflecting the higher proportion of luxury and import brands in the composite mix. Additionally, the NADA average prices appear to be inclusive of F&I revenue, which serves to reduce the gap between the composite and NADA, and renders them not perfectly comparable to the composite.²¹

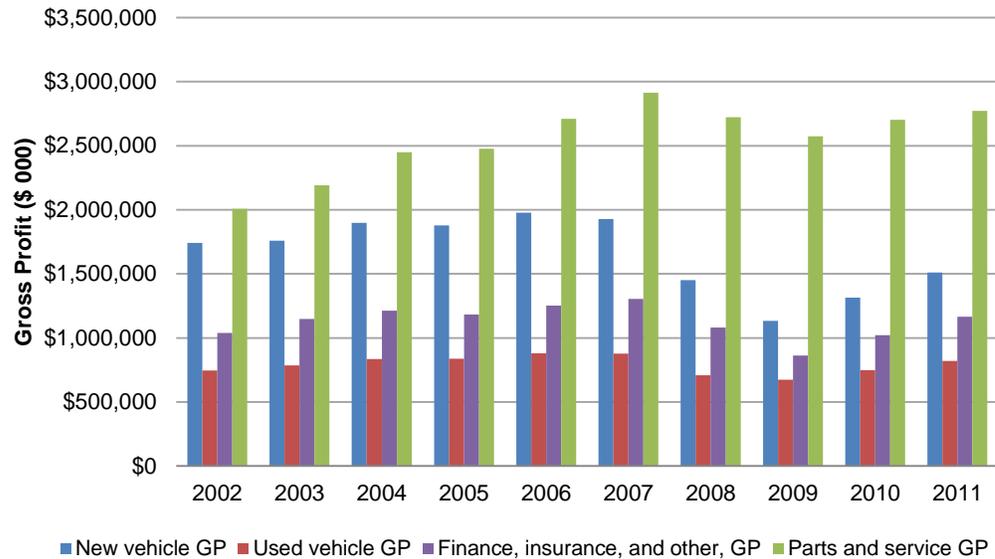
Gross profits by department

Gross profit is simply revenue less the cost of goods sold. In the new and used vehicle departments the cost of goods sold is the wholesale cost of the vehicle, while in the parts department it is the wholesale price of the parts sold.

²⁰ It should be noted that this is the average price excluding consumer rebates provided by the manufacturer to the consumer and all F&I-related revenue.

²¹ The NADA DATA 2011 report includes F&I income as a component of the new and used vehicle departments.

**Chart 4: Gross Profit by Department
2002–2011 Composite Financials**



In Chart 4, the departmental view changes considerably when looking at gross profit (GP). The relative importance of the new and used departments based on revenue, observed in Chart 3, is diminished. The service and parts department is the single largest contributor to total gross profits. F&I represents 18-19% of total gross profits throughout the period. This is in large part because there is no cost of goods sold on F&I products. Dealerships report as revenue the net commissions earned by the dealership on the F&I products and services. In other words, F&I revenue and gross profit are the same number for a dealership. While this prevents us from directly inferring from the financials the prices paid by consumers for the F&I products and services, it does allow us to observe the portion of those prices retained by the dealership through their discretionary pricing mechanisms.

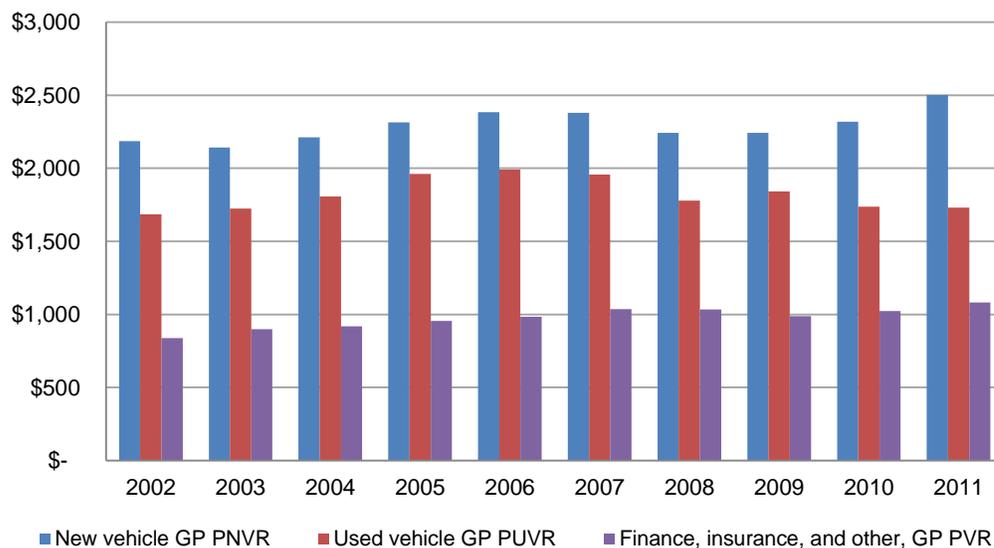
A more intuitive view of gross profits is achieved by calculating gross profit per vehicle, as presented in Chart 5. F&I gross profits per vehicle (new and used combined) have grown from approximately \$840 per vehicle in 2002 to \$1,080 per vehicle in 2011. It is important to remember that these numbers include the revenue received by the dealership for arranging financing (e.g., a flat fee or finance reserve) and for the sale of other F&I products, such as extended service contracts, GAP insurance, etc. These components of F&I are not easily isolated. We can determine that the finance reserve constitutes approximately 35% of F&I gross profits in 2011 for one of the companies in the composite.²² Interestingly, this percentage was 42% in 2002 and consistently declined throughout the period. While it is not known if that percentage is consistent across dealerships, there is a high degree of consistency across the four dealership groups included in the composite with respect to total F&I gross revenue and gross profits. In 2011, they ranged from \$977 per vehicle retailed to \$1,201 per vehicle retailed. *Automotive News* reported that all six publicly-traded dealership groups (the four included in this

²² See Group 1 Automotive Financial Statements.

composite plus Asbury Automotive Group and Lithia Motors) exceeded \$1,000 per vehicle in F&I revenue during the third quarter of 2011.²³

Gross profits per new and used vehicles reflect the relatively high cost of goods sold in these departments. For example, in 2011 the average price (revenue) of a new vehicle was more than \$34,700; however, the average cost of goods sold was \$32,200, leaving approximately \$2,500 in gross profit per new vehicle. That number, however, should be interpreted with some caution.

**Chart 5: Gross Profit per Vehicle Retailed by Department
2002–2011 Composite Financials**



In the automotive retail world there are several unique circumstances that affect the gross profit on new vehicles. There are numerous incentives and rebates offered to dealerships by manufacturers. At various points in time these incentives include: incentives for achieving certain monthly unit volume sales levels, assistance to reduce the dealership’s floor plan interest expense, and vehicle rebates and holdbacks. Some finance companies offer the dealership incentives for assigning retail installment contracts to the finance company at or above specified volume levels. These various incentives and rebates are generally treated as a reduction to cost of goods sold, and hence serve to increase gross profit in the new vehicle department. Manufacturer incentives are included in the gross profit numbers reported in Charts 4 and 5. While the specific dollar amount of incentives and rebates received by the dealership groups are generally not reported in the 10-Ks, some entities disclose them, and they are substantial. Penske Automotive Group reports the total reduction to cost of goods sold related to these rebates and incentives during 2008–2010 averaged approximately \$2,100 per new vehicle.²⁴ AutoNation reported dollars of floor plan assistance received every year from 2002–2010; it was consistently in the range of approximately \$270–\$300 per new vehicle. Based on these estimates, gross profit in the new vehicle department may have been as low as

²³ “Public retailers top \$1,000 F&I per vehicle,” *Automotive News*, November 2, 2011.

²⁴ See Penske Automotive Group 10-K, Revenue Recognition, December 31, 2010, p. 25.

\$200–\$300 per vehicle without these manufacturer incentives. This is before consideration of any other dealership costs: salaries and compensation, rent, advertising, borrowing costs, etc. In the next section we consider these costs.

Net profit by department

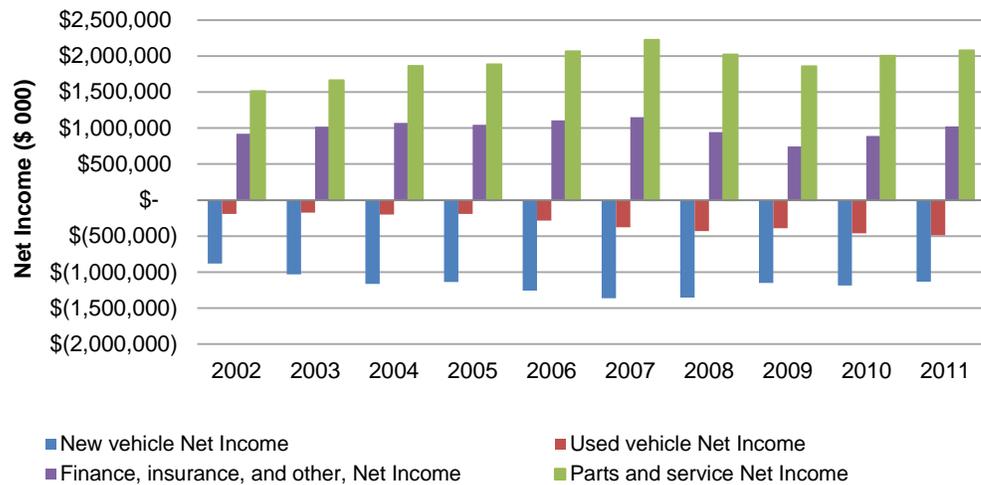
With the data available from the composite income statements, we can estimate the net profitability of each department separately. In order to understand net profitability by department, there are four primary costs to be considered: selling, general and administrative (SG&A), depreciation and amortization, floor plan expense, and other interest expense. The financial statements do not allocate these costs by department. In this section, we consider a number of alternatives for allocating these costs, and we estimate net income by department under two alternatives.

SG&A is by far the largest of these four cost areas and generally includes expense items such as: employee compensation and salaries, rent, advertising, ongoing facility improvements, franchise closures and relocations, legal, accounting, corporate expenses, etc. The costs are a mix of variable, semi-fixed, and fixed expenses. We report two alternatives for allocating the costs. Alternative 1 allocates these expenses to each department based on its respective share of total revenue, while Alternative 2 allocates these expenses to each department based on its respective share of total gross profits. A third alternative, allocating costs based on share of cost of goods sold (COGS), was considered but not undertaken, as it would have resulted in the allocation of no expenses to the F&I department. Depreciation, amortization, and other interest were also allocated using the same two alternatives. Floor plan interest expense was allocated to the new and used vehicle departments based on each department's share of total vehicle cost of goods sold (i.e., new vehicle department COGS plus used vehicle department COGS) in both alternatives.

Alternative 1—Cost allocation by share of revenue

Chart 6 presents the departmental net profit under Alternative 1. In this allocation scenario, both the new and used vehicle departments consistently generate net losses in every year during the period, while the F&I department and service and parts department generate all of the net profits of the dealership.

**Chart 6: Estimated Net Income by Department – Alternative 1
2002–2011 Composite Financials**

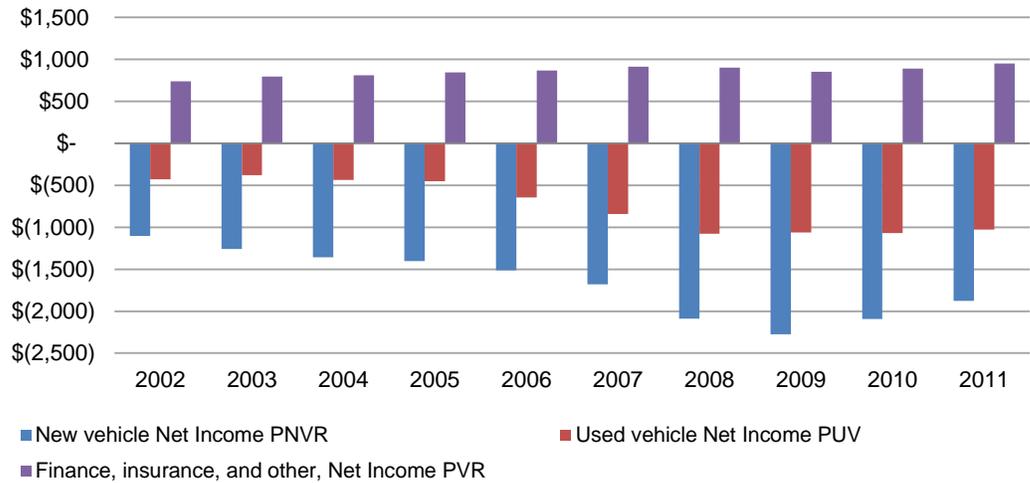


Interestingly, the net losses in the new vehicle department are larger than the net profits in the F&I department in every year except 2002. When the net losses in the used vehicle department are included, the dealerships are generating no profits directly from the sale and financing of new or used vehicles, even after considering manufacturer incentives. Under Alternative 1, all dealership net profits come from the service and parts department. Consistent with this result, NADA has reported for years that the average dealership generates a net loss in the new vehicle department even when the F&I income generated by the sale of new vehicles is included in the calculation. Arguably, the used vehicle department is closer to breakeven. However, given the relative volumes of new and used vehicles, small net profit from the sale and financing of used vehicles is not sufficient to offset the losses generated by the sale and financing of new vehicles.

Using the NADA reported numbers as a guide, Alternative 1 produces several trends that are consistent with those reported by NADA—specifically the increasing net losses of the new vehicle department over the period, and the increasing net profitability of the service and parts department. However, the levels of profitability and losses are exaggerated relative to those reported by NADA and may suggest that Alternative 1 underallocated expenses to the F&I and service and parts departments, while overallocating expenses to the new and used vehicle departments. For example, while NADA estimates show the average new vehicle department, including F&I income, generates net losses during the period 2006–2010, Alternative 1 implies larger losses. A comparison of results for the used vehicle department yields similar results.

Chart 7 presents net profits on a per vehicle basis and shows similar departmental trends and levels. F&I net profits are relatively stable during the period and average \$858 per vehicle. The loss per vehicle in the new vehicle department increases significantly during the period, to more than \$2,000 per new vehicle retained in the later years of the period. These results also suggest the potential underallocation of costs to the F&I department and overallocation of expenses to the new and used departments. For example, F&I department net profit in 2011 is estimated to be \$950 per vehicle, suggesting that only \$132 of the \$1,083 of gross profit per vehicle went to cover salaries, compensation, rent, etc.

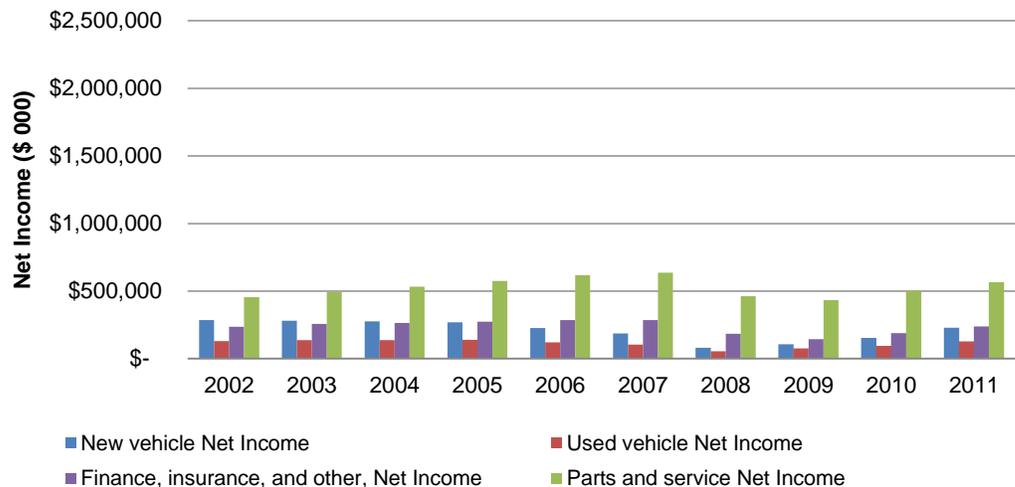
**Chart 7: Estimated Net Income Per Vehicle Retailed – Alternative 1
2002–2011 Composite Financials**



Alternative 2 – Cost allocation by share of gross profits

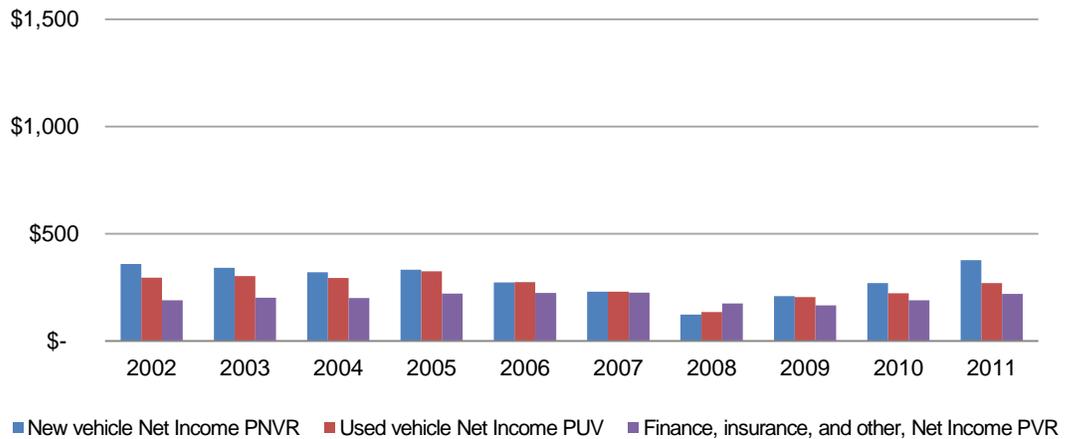
Chart 8 presents the departmental net profit under Alternative 2. In this allocation scenario, all four departments generate positive net profits every year during the period. However the net profitability of the F&I department falls by approximately 75% as compared to Alternative 1. For example during 2010, F&I department net profit was estimated at \$237 million in Alternative 2 versus \$1,024 billion in Alternative 1. A similar decrease is observed in the net profits generated by the service and parts department. Additionally, the new vehicle department generates more net profits than the used department in every year during the period—a counterintuitive result. These findings are somewhat inconsistent with NADA’s reported numbers. Specifically, NADA reports that average dealership new vehicle departments had net losses during the period 2006–2010, even when F&I income from the sale of new vehicles is included. Further, NADA’s reported numbers suggest the used vehicle department is likely not profitable if one excludes the F&I income associated with used vehicle sales.

**Chart 8: Estimated Net Income by Department – Alternative 2
2002–2011 Composite Financials**



Alternative 2 departmental net profit results are presented on a per vehicle basis in Chart 9. Under this alternative the F&I department generates net profits of \$202 per vehicle during the period. For example, F&I department net profit in 2011 is estimated to be \$221 per vehicle, suggesting that \$862 of the \$1,083 of gross profit per vehicle went to cover salaries, compensation, rent, etc. These results are generally inconsistent with NADA reported results and industry discussions and suggest that Alternative 2 likely over allocates expenses to the F&I department and the service and parts department, while under allocating expenses to the new and used vehicle departments.

**Chart 9: Estimated Net Income Per Vehicle Retailed – Alternative 2
2002–2011 Composite Financials**



Financial conclusions

While Alternative 1 may overestimate the net profitability of the F&I department, it appears to align with other available industry data better than Alternative 2. Perhaps the reality lies in between these two scenarios. Nonetheless, the alternatives allow us to make some interesting comparisons and examine an additional scenario. Starting with NADA’s reported average new and used vehicle department net profits including F&I, we can back out the net F&I profits estimated in Alternatives 1 and 2.²⁵ Even under Alternative 2, new and used departments lose money in almost every year of the period. Under both scenarios, the service and parts department is the largest contributor to net profits.

These analyses strongly suggest that dealerships are pricing vehicles at a level that does not generate net profits, even after one includes the significant incentives paid to the dealerships by the manufacturers. While the F&I department generates a positive net profit, it is not large enough to offset the net losses generated by the pricing of new and used vehicles. Of course the facts and circumstances of each individual transaction, as well as the dealerships’ overall volume of sales, will impact the profitability of the various departments involved in the transaction. Nonetheless, the sale and financing of new and used vehicles are, on average,

²⁵ While NADA does not report the specific assumptions used to make their calculations, the numbers and charts they report suggest average dealership new department net profits (including F&I) in the range of approximately \$175–\$225 per vehicle during 2002–2005 and negative in subsequent years, and used department net profits (including F&I) in the range of \$100–\$200 per vehicle every year from 2002–2010, with the exception of 2008.

priced at a level that is not sufficient to cover the costs related to those departments, much less generate a profit and pay a return on invested capital. All dealership net profits during the period came from the servicing of vehicles after the sale. From the customer's perspective, the cost of purchasing and financing the vehicle is apparently being subsidized by future repair and maintenance costs in an interesting twist on the old expression "buy now, pay later." These findings contrast with earlier research that examined the finance reserve in isolation from the other prices bundled in vehicle purchases. Contrary to earlier findings that suggest the finance reserve adds to the cost of vehicle ownership, we find strong evidence that the prices paid to arrange financing are, on average, more than offset by prices established for the vehicle itself, and consumers are purchasing the bundle of products and services at a total price that does not cover the dealerships' costs associated with providing those products and services.

Challenges for regulators

These findings are consistent with the observed market practice that dealerships and consumers are bundling and pricing multiple products and services in one transaction. Conventional wisdom suggests that many consumers focus on their monthly payment as a way to understand the net result of this bundling process and to make comparisons between various potential transactions. Given these pricing dynamics, attempts to evaluate the price of financing in isolation from the prices of other bundled products and services is fraught with challenges and increases the potential for drawing incorrect conclusions. A more holistic view of the transaction is required if appropriate conclusions are to be drawn about the pricing levels, fairness of relative pricing differences, and the impact of pricing on the consumers' ability to perform under the contract. It also suggests that attempts to regulate the prices charged by dealers for arranging financing may not result in consumers paying less overall, but rather shifting the gross profits from one department to another within the dealership.

This analysis raises a number of additional questions. Why do profits appear to be unevenly realized by the various departments? Do we have a theoretical construct for how pricing occurs at the dealership? What impact do manufacturer-sponsored incentives to the consumer and dealership have on the pricing in each department? Do protected classes (under ECOA) face higher dealership prices for arranging credit? If so, are these higher prices offset (worsened) by lower or higher prices on other aspects of the transaction? What other customer-specific attributes contribute to the prices at the dealership? Unfortunately, the data to answer these questions are not readily available, and they do not reside with the indirect lender. Much of the transaction-specific information resides in the deal jacket at the dealership, but even that presents an incomplete picture due to the structure of certain manufacturer incentives.²⁶

What is clear is that this process starkly contrasts with the one encountered by consumers who use a mortgage broker to arrange financing for their real estate purchase and great care should be taken in regulating these separate markets.

²⁶ "\$1000 Cash Back: Asymmetric Information in Auto Manufacturer Promotions," Busse, Zettelmeyer, and Silva-Risso, NBER Working Paper 10887, accessed March 22, 2013, <http://www.nber.org/papers/w10887.pdf>.

Contacts

Arthur P. Baines

Vice President
Washington, DC
+1-202-662-7838
abaines@crai.com

Dr. Marsha J. Courchane

Vice President and Practice Leader
Washington, DC
+1-202-662-3804
mcourchane@crai.com

About the Financial Economics Practice at CRA

CRA's Financial Economics Practice provides economic and financial analysis and advice to financial institutions, financial regulators, and counsel representing financial institutions. Our experts are skilled in quantitative analysis and econometrics, particularly as applied to issues in credit and compliance risk in primary and secondary consumer lending markets. To learn more about the practice, visit www.crai.com/financialeconomics or contact Dr. Courchane or Mr. Baines.

References

Cohen, Mark A. "Imperfect Competition in Auto Lending: Subjective Markup, Racial Disparity, and Class Action Litigation." Vanderbilt Law School Law and Economics Research Paper No. 07-01, 2007.

Goldberg, Pinelopi. "Price Discrimination in New Car Purchases: Evidence from the Consumer Expenditure Survey." *Journal of Political Economy*, Vol. 104, No. 3, pp. 622-654, June 1996.

Scott Morton, Fiona, Florian Zettelmeyer and Jorge Silva-Risso. "Consumer Information and Price Discrimination: Does the Internet Affect the Pricing of New Cars to Women and Minorities?" *Quantitative Marketing and Economics*: 1:1, pp. 65-92, 2003.

Charles, Kerwin K., Erik Hurst, and Melvin Stephens Jr. "Rates for Vehicle Loans: Race and Loan Source." 2008.

Busse, Meghan, Florian Zettelmeyer, and Jorge Silva-Risso. "\$1000 Cash Back: Asymmetric Information in Auto Manufacturer Promotions." NBER Working Paper 10887, <http://www.nber.org/papers/w10887>, 2004.

"The Hidden Mark-up of Auto Loans: Consumer Cost of Dealer Kickbacks and Inflated Finance Charges." Consumer Federation of America, January 26, 2004.

Davis, Delvin and Joshua M. Frank. "Under the Hood: Auto Loan Interest Rate Hikes Inflate Consumer Costs and Loan Losses." Center for Responsible Lending, April 19, 2011.

Appendix 1

Dealership Composite—Based on financial statements from AutoNation, Penske Automotive, Sonic Automotive, and Group 1 Automotive

Composite P&L (\$ In thousands)	Year Ended December 31,										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Franchises											674
Retail vehicle Unit Sales											
New vehicle	797,149	821,247	858,083	811,424	829,192	810,446	647,240	505,364	566,470	603,643	
Used vehicle	443,014	455,553	463,074	426,524	442,128	447,783	398,137	366,060	430,093	474,095	
Total Retail	1,240,163	1,276,800	1,321,157	1,237,948	1,271,320	1,258,229	1,045,377	871,424	996,563	1,077,738	
Wholesale vehicle											
Total vehicle											
Share of New vehicle market									4.9%	4.7%	
Revenues											
New vehicle retail sales	\$ 21,867,354	\$ 23,416,373	\$ 25,416,094	\$ 24,672,598	\$ 25,856,965	\$ 26,245,845	\$ 20,677,641	\$ 16,102,148	\$ 18,857,909	\$ 20,972,901	
Used vehicle retail sales	\$ 7,819,158	\$ 8,047,752	\$ 8,623,947	\$ 8,433,336	\$ 9,337,860	\$ 10,008,750	\$ 8,392,798	\$ 7,505,539	\$ 9,104,016	\$ 10,366,649	
Fleet and wholesale vehicle sales (P, S, G1)	\$ 1,169,865	\$ 1,302,465	\$ 1,690,889	\$ 1,662,237	\$ 1,760,714	\$ 1,842,400	\$ 1,347,051	\$ 834,548	\$ 1,034,429	\$ 1,096,762	
Parts and service sales	\$ 4,287,031	\$ 4,614,994	\$ 5,107,168	\$ 5,120,580	\$ 5,541,778	\$ 5,909,683	\$ 5,521,242	\$ 5,220,704	\$ 5,448,432	\$ 5,683,552	
Finance, insurance, and other, net	\$ 1,039,053	\$ 1,148,214	\$ 1,213,383	\$ 1,182,077	\$ 1,251,965	\$ 1,304,191	\$ 1,081,784	\$ 862,006	\$ 1,020,611	\$ 1,166,707	
Other (A, P)	\$ 56,000	\$ 39,000	\$ 89,400	\$ 80,800	\$ 72,500	\$ 68,300	\$ 409,609	\$ 226,259	\$ 99,201	\$ 53,000	
Total revenues	\$ 36,238,461	\$ 38,568,798	\$ 42,140,881	\$ 41,151,628	\$ 43,821,782	\$ 45,379,169	\$ 37,430,125	\$ 30,751,204	\$ 35,564,598	\$ 39,339,571	
Cost of Goods Sold											
New vehicle retail sales	\$ 20,124,960	\$ 21,656,766	\$ 23,518,425	\$ 22,794,701	\$ 23,880,042	\$ 24,317,367	\$ 19,226,441	\$ 14,969,233	\$ 17,543,905	\$ 19,462,834	
Used vehicle retail sales	\$ 7,072,609	\$ 7,261,880	\$ 7,787,411	\$ 7,596,756	\$ 8,456,763	\$ 9,132,313	\$ 7,684,432	\$ 6,830,961	\$ 8,356,493	\$ 9,546,540	
Fleet and wholesale vehicle sales (P, S, G1)	\$ 1,187,540	\$ 1,318,309	\$ 1,706,108	\$ 1,665,118	\$ 1,763,039	\$ 1,846,686	\$ 1,361,250	\$ 824,923	\$ 1,029,557	\$ 1,092,984	
Parts and service sales	\$ 2,279,251	\$ 2,424,030	\$ 2,657,772	\$ 2,643,288	\$ 2,830,383	\$ 2,996,530	\$ 2,798,504	\$ 2,648,002	\$ 2,746,751	\$ 2,912,004	
Finance, insurance, and other, net	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Other (A, P)	\$ 6,800	\$ 5,100	\$ 39,900	\$ 34,500	\$ 31,400	\$ 28,700	\$ 321,435	\$ 181,800	\$ 67,133	\$ 26,100	
Gross Profit (Sonic 02-04 estimated on SS GP%)											
New vehicle GP	\$ 1,742,394	\$ 1,759,607	\$ 1,897,669	\$ 1,877,897	\$ 1,976,923	\$ 1,928,478	\$ 1,451,200	\$ 1,132,915	\$ 1,314,004	\$ 1,510,067	
Used vehicle GP	\$ 746,549	\$ 785,872	\$ 836,536	\$ 836,580	\$ 881,097	\$ 876,437	\$ 708,366	\$ 674,578	\$ 747,523	\$ 820,109	
Used vehicle wholesale GP (P, S, G1)	\$ (17,675)	\$ (15,844)	\$ (15,219)	\$ (2,881)	\$ (2,325)	\$ (4,286)	\$ (14,199)	\$ 9,625	\$ 4,872	\$ 3,778	
Parts and service GP	\$ 2,007,780	\$ 2,190,964	\$ 2,449,396	\$ 2,477,292	\$ 2,711,395	\$ 2,913,153	\$ 2,722,738	\$ 2,572,702	\$ 2,701,681	\$ 2,771,548	
Finance, insurance, and other, GP	\$ 1,039,034	\$ 1,148,207	\$ 1,213,353	\$ 1,182,077	\$ 1,251,965	\$ 1,304,191	\$ 1,081,784	\$ 862,006	\$ 1,020,611	\$ 1,166,707	
Other GP (A, P)	\$ 49,200	\$ 33,900	\$ 49,500	\$ 46,300	\$ 41,100	\$ 39,600	\$ 88,174	\$ 44,459	\$ 32,068	\$ 26,900	
Total Gross Profit (as reported)	\$ 5,567,064	\$ 5,908,513	\$ 6,431,704	\$ 6,417,265	\$ 6,860,155	\$ 7,057,573	\$ 6,038,063	\$ 5,296,285	\$ 5,820,759	\$ 6,299,109	
SG&A	\$ 4,197,833	\$ 4,457,183	\$ 4,873,190	\$ 4,773,425	\$ 5,129,574	\$ 5,323,595	\$ 4,814,676	\$ 4,212,393	\$ 4,554,246	\$ 4,815,362	
Depreciation and Amortization	\$ 106,473	\$ 123,812	\$ 157,843	\$ 151,931	\$ 165,950	\$ 190,860	\$ 196,263	\$ 191,641	\$ 187,249	\$ 200,350	
Asset Impairments and other	\$ (10,500)	\$ 10,000	\$ 48,711	\$ 8,107	\$ 2,041	\$ 18,484	\$ 3,365,486	\$ 22,547	\$ 13,089	\$ 4,856	
Income (Loss) before Interest expense	\$ 1,273,257	\$ 1,317,518	\$ 1,351,960	\$ 1,483,802	\$ 1,562,590	\$ 1,524,634	\$ (2,338,362)	\$ 869,704	\$ 1,066,175	\$ 1,278,541	
Other Income (Expense)											
Floorplan interest expense	\$ (146,791)	\$ (154,044)	\$ (183,688)	\$ (222,106)	\$ (304,268)	\$ (323,604)	\$ (233,757)	\$ (123,409)	\$ (133,127)	\$ (118,541)	
Other interest expense, net	\$ (140,662)	\$ (171,855)	\$ (182,040)	\$ (172,443)	\$ (198,519)	\$ (235,811)	\$ (239,667)	\$ (205,160)	\$ (195,927)	\$ (205,424)	
Gain (loss) related to debt	\$ (1,173)	\$ -	\$ (6,381)	\$ (17,400)	\$ (34,988)	\$ (20,232)	\$ 44,738	\$ 6,149	\$ (42,272)	\$ (11,402)	
Other income (expense), net	\$ 20,766	\$ 6,890	\$ 9,748	\$ 11,842	\$ 21,357	\$ 6,629	\$ 15,057	\$ 13,617	\$ 15,944	\$ 24,637	
INCOME (LOSS) BEFORE INCOME TAXES	\$ 1,005,397	\$ 998,509	\$ 989,599	\$ 1,083,695	\$ 1,046,172	\$ 951,616	\$ (2,751,991)	\$ 560,901	\$ 710,793	\$ 967,811	

Computations Based on Composite—Alternative 1

	Year Ended December 31,									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Revenue per unit by Department										
New vehicle revenue per new vehicle retail	\$ 27,432	\$ 28,513	\$ 29,620	\$ 30,407	\$ 31,183	\$ 32,384	\$ 31,947	\$ 31,862	\$ 33,290	\$ 34,744
Used vehicle revenue per used vehicle	\$ 17,650	\$ 17,666	\$ 18,623	\$ 19,772	\$ 21,120	\$ 22,352	\$ 21,080	\$ 20,504	\$ 21,168	\$ 21,866
Finance, insurance, and other, PVR	\$ 838	\$ 899	\$ 918	\$ 955	\$ 985	\$ 1,037	\$ 1,035	\$ 989	\$ 1,024	\$ 1,083
Net Income Margin	2.8%	2.6%	2.3%	2.6%	2.4%	2.1%	-7.4%	1.8%	2.0%	2.5%
GP per unit by Department										
New vehicle GP PNVR	\$ 2,186	\$ 2,143	\$ 2,212	\$ 2,314	\$ 2,384	\$ 2,380	\$ 2,242	\$ 2,242	\$ 2,320	\$ 2,502
Used vehicle GP PUVR	\$ 1,685	\$ 1,725	\$ 1,806	\$ 1,961	\$ 1,993	\$ 1,957	\$ 1,779	\$ 1,843	\$ 1,738	\$ 1,730
Finance, insurance, and other, GP PVR	\$ 838	\$ 899	\$ 918	\$ 955	\$ 985	\$ 1,037	\$ 1,035	\$ 989	\$ 1,024	\$ 1,083
Alternative 1 - Allocation of SG&A and D&A by share of Revenue										
SG&A, D&A, & Other Interest allocations (by share of Revenue) - Alternative 1										
New vehicle	\$ 2,512,466	\$ 2,676,932	\$ 2,924,535	\$ 2,849,625	\$ 3,007,479	\$ 3,052,997	\$ 2,635,809	\$ 2,198,642	\$ 2,410,259	\$ 2,564,484
Used vehicle	\$ 898,388	\$ 920,010	\$ 992,325	\$ 974,030	\$ 1,086,106	\$ 1,164,248	\$ 1,069,842	\$ 1,024,832	\$ 1,163,599	\$ 1,267,593
Used vehicle wholesale (P, S, G1)	\$ 134,413	\$ 148,896	\$ 194,564	\$ 191,984	\$ 204,792	\$ 214,314	\$ 171,711	\$ 113,952	\$ 132,212	\$ 134,108
Parts and service	\$ 492,562	\$ 527,581	\$ 587,663	\$ 591,415	\$ 644,576	\$ 687,432	\$ 703,801	\$ 712,853	\$ 696,373	\$ 694,962
Finance, insurance, and other, net	\$ 119,383	\$ 131,262	\$ 139,619	\$ 136,527	\$ 145,619	\$ 151,707	\$ 137,897	\$ 117,701	\$ 130,446	\$ 142,660
Other (A, P)	\$ 6,434	\$ 4,458	\$ 10,287	\$ 9,332	\$ 8,433	\$ 7,945	\$ 52,213	\$ 30,894	\$ 12,679	\$ 6,481
Net by Department										
New vehicle Net Income	\$ (878,691)	\$ (1,032,687)	\$ (1,164,860)	\$ (1,138,316)	\$ (1,255,251)	\$ (1,359,774)	\$ (1,351,616)	\$ (1,150,467)	\$ (1,186,430)	\$ (1,133,948)
Used vehicle Net Income	\$ (190,011)	\$ (172,821)	\$ (201,483)	\$ (192,968)	\$ (284,582)	\$ (376,161)	\$ (428,226)	\$ (388,923)	\$ (459,028)	\$ (486,494)
Finance, insurance, and other, Net Income	919,651	1,016,945	1,073,734	1,045,550	1,106,346	1,152,484	943,887	744,305	890,165	1,024,047
Parts and service Net Income	1,515,219	1,663,383	1,861,733	1,885,877	2,066,819	2,225,721	2,018,937	1,859,849	2,005,308	2,076,586
Net per unit by Department										
New vehicle Net Income PNVR	\$ (1,102)	\$ (1,257)	\$ (1,358)	\$ (1,403)	\$ (1,514)	\$ (1,678)	\$ (2,088)	\$ (2,277)	\$ (2,094)	\$ (1,879)
Used vehicle Net Income PUV	\$ (429)	\$ (379)	\$ (435)	\$ (452)	\$ (644)	\$ (840)	\$ (1,076)	\$ (1,062)	\$ (1,067)	\$ (1,026)
Finance, insurance, and other, Net Income PVR	\$ 742	\$ 796	\$ 813	\$ 845	\$ 870	\$ 916	\$ 903	\$ 854	\$ 893	\$ 950

Alternative 2

	Year Ended December 31,									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Alternative 2 - Allocation of SG&A by share of GP										
SG&A, D&A, & Other Interest allocations (by share of GP) - Alternative 2										
New vehicle	\$ 1,347,173	\$ 1,364,260	\$ 1,484,402	\$ 1,441,317	\$ 1,526,036	\$ 1,506,822	\$ 1,204,339	\$ 942,056	\$ 1,070,366	\$ 1,202,402
Used vehicle	\$ 577,212	\$ 609,303	\$ 654,358	\$ 642,089	\$ 680,141	\$ 684,807	\$ 587,867	\$ 560,934	\$ 608,920	\$ 653,018
Used vehicle wholesale (P, S, G1)	\$ (13,666)	\$ (12,284)	\$ (11,905)	\$ (2,211)	\$ (1,795)	\$ (3,349)	\$ (11,784)	\$ 8,004	\$ 3,969	\$ 3,008
Parts and service	\$ 1,552,363	\$ 1,698,701	\$ 1,915,976	\$ 1,901,362	\$ 2,092,993	\$ 2,276,200	\$ 2,259,578	\$ 2,139,286	\$ 2,200,745	\$ 2,206,866
Finance, insurance, and other, net	\$ 803,354	\$ 890,229	\$ 949,114	\$ 907,263	\$ 966,423	\$ 1,019,033	\$ 897,764	\$ 716,786	\$ 831,373	\$ 928,999
Other (A, P)	\$ 38,040	\$ 26,283	\$ 38,720	\$ 35,536	\$ 31,726	\$ 30,942	\$ 73,175	\$ 36,969	\$ 26,122	\$ 21,419
FP Interest allocation										
New vehicle	\$ (108,619)	\$ (115,361)	\$ (137,995)	\$ (166,588)	\$ (224,695)	\$ (235,255)	\$ (167,007)	\$ (84,740)	\$ (90,175)	\$ (79,531)
Used vehicle	\$ (38,172)	\$ (38,683)	\$ (45,693)	\$ (55,518)	\$ (79,573)	\$ (88,349)	\$ (66,750)	\$ (38,669)	\$ (42,952)	\$ (39,010)
Net by Department										
New vehicle Net Income	\$ 286,602	\$ 279,985	\$ 275,272	\$ 269,993	\$ 226,192	\$ 186,401	\$ 79,854	\$ 106,120	\$ 153,463	\$ 228,134
Used vehicle Net Income	\$ 131,165	\$ 137,886	\$ 136,485	\$ 138,973	\$ 121,384	\$ 103,281	\$ 53,749	\$ 74,975	\$ 95,651	\$ 128,081
Finance, insurance, and other, Net Income	\$ 235,680	\$ 257,978	\$ 264,239	\$ 274,814	\$ 285,542	\$ 285,158	\$ 184,020	\$ 145,220	\$ 189,238	\$ 237,708
Parts and service Net Income	\$ 455,418	\$ 492,263	\$ 533,420	\$ 575,930	\$ 618,402	\$ 636,953	\$ 463,160	\$ 433,416	\$ 500,936	\$ 564,682
Net per unit by Department										
New vehicle Net Income PNVR	\$ 360	\$ 341	\$ 321	\$ 333	\$ 273	\$ 230	\$ 123	\$ 210	\$ 271	\$ 378
Used vehicle Net Income PUV	\$ 296	\$ 303	\$ 295	\$ 326	\$ 275	\$ 231	\$ 135	\$ 205	\$ 222	\$ 270
Finance, insurance, and other, Net Income PVR	\$ 190	\$ 202	\$ 200	\$ 222	\$ 225	\$ 227	\$ 176	\$ 167	\$ 190	\$ 221