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Competition and the Effects of Price Controls in Hawaii's Gasoline Market

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Before the

State of Hawaii

Joint Hearing

House Committee on Energy and Environmental Protection

Senate Committee on Energy and Environment

House Committee on Consumer Protection and Commerce

Senate Committee on Commerce, Consumer Protection, and Housing

House Committee on Transportation

Senate Committee on Transportation, Military Affairs, and Government Operations

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Thank you for the opportunity to share the Federal Trade Commission staff's views on the likely effects of price controls and other policies in Hawaii's gasoline market.⁽¹⁾

The Federal Trade Commission is charged by statute with preventing unfair methods of competition and unfair or deceptive acts or practices in or affecting commerce.⁽²⁾ Commission staff have had considerable experience assessing the competitive impact of regulations and business practices in the petroleum industry, including the petroleum industry in Hawaii.⁽³⁾ On numerous occasions, the Commission staff have offered comments on proposed state laws covering a variety of areas, including laws that would regulate gasoline prices, ban sales of motor fuels below cost, or limit competition between refiner-owned and independent gas stations.⁽⁴⁾

In May 2002, Hawaii enacted Act 77, imposing wholesale and retail price controls on regular unleaded gasoline beginning on July 1, 2004. The legislation also directed Hawaii's Department of Business, Economic Development and Tourism (DBEDT) to assess the likely impact of price controls and other alternative policies to reduce gasoline prices in Hawaii. We believe that the Legislature showed great foresight when it included this provision.

During the past several months, the staff of the FTC's Office of Policy Planning, Bureau of Economics, and the Western Region (San Francisco) have engaged in extensive conversations with staff of the Hawaii Attorney General's Office and DBEDT. We have reviewed documents from the State's price-fixing lawsuit against the oil companies,⁽⁵⁾ materials from the FTC's own investigations of oil company mergers affecting Hawaii's gasoline market, and price data collected as part of an ongoing FTC gasoline price monitoring project. Based on the evidence we have seen, we offer the following observations that may be of use to Hawaii's policymakers as you consider alternative policies affecting competition and pricing in the gasoline market:

1. Hawaii's gasoline market has two refineries and six principal retail chains. Import prices for gasoline have a significant influence on its wholesale price. Several features of Hawaii's market tend to reduce retail supply and increase retail prices, including rent caps for stations operated by lessee-dealers and a retail "anti-encroachment" law restricting marketers' ability to open new company-operated stations near existing dealer-operated stations.

2. Price controls usually create shortages, reduce quality, and generate inconvenience for consumers when they are imposed in markets that could be competitive. If the price controls in Act 77 become effective and succeed in reducing retail gasoline prices, they likely will impose significant non-price costs on consumers.

3. The more consumer-friendly way to reduce gasoline prices in Hawaii would be through policies that reduce costs and/or promote competition. Policies that may deserve further consideration include repealing Hawaii's retail anti-encroachment law, repealing the rent cap on gas stations (which may discourage refiners and marketers from establishing new dealer-operated stations), and ensuring that the Hawaii Attorney General's office has adequate resources to review mergers that may impact competition in Hawaii's gasoline market. If DBEDT's ongoing study and other evidence indicate that wholesale gas prices are not competitive, policymakers may want to consider initiatives to improve access to existing import terminals.

I will elaborate briefly on each of these points.

1. Market Structure and Costs

Hawaii's gasoline market has two refineries, owned by ChevronTexaco and Tesoro. The State's five principal marketers - ChevronTexaco, Tesoro, Shell, ConocoPhillips, and Aloha - obtain gasoline from refineries or import terminals and distribute it to retail stations. A sixth marketer, BC Oil, operated the former Texaco properties owned by United States Restaurant Properties but is now bankrupt. Retail stations can be owned and operated by marketers,⁽⁶⁾ operated by lessee-dealers under contract with the marketer that owns the station, or owned and operated by independent retailers.

Hawaii's refiners import crude oil, and gasoline marketers can also import gasoline. Since Hawaii has only two refineries, both on Oahu, the ease or difficulty of importing gasoline can play a key role in determining the price a marketer pays for gasoline. The refineries in Hawaii normally have the capability to produce approximately enough gasoline to satisfy demand in Hawaii. These two refineries appear to be the lowest-cost source of supply.⁽⁷⁾ Various firms occasionally have imported gasoline in the past.⁽⁸⁾ Even if gasoline imports are rare, however, we would expect the cost of imports to influence the price that marketers pay for gasoline in Hawaii. A marketer with the ability to import gasoline likely will have a better chance of negotiating a favorable supply agreement with one of the local refineries, since the refinery likely would have to bear the cost of exporting gasoline if a competitor increased gasoline imports significantly.⁽⁹⁾

Act 77 was enacted shortly after settlement of the State's antitrust price-fixing suit against gasoline marketers. Antitrust laws prohibit competitors from agreeing on prices or reaching other agreements that would cause a reduction in competition. However, antitrust law does not prohibit a company from speculating about how its competitors will react to its prices and taking those expectations into account when making its own, independent pricing decisions. Parallel independent behavior, without any direct or circumstantial evidence of explicit agreement on prices or practices that may facilitate collusion, does not violate the antitrust laws.⁽¹⁰⁾

Several significant non-antitrust aspects of Hawaii's gasoline market tend to increase retailers' costs and discourage entry.⁽¹¹⁾ First, due to Hawaii's unusual land ownership regime, it is difficult to obtain fee-simple ownership to land, which may reduce the incentive to invest in station facilities sited on the land.

Second, Hawaii also has sought to enact rent cap legislation limiting the rent wholesalers could charge retail dealers who lease their stations from the wholesalers.⁽¹²⁾ Wholesalers could respond to rent controls in two different ways, both of which likely would reduce the number and quality of dealer-operated gasoline stations. If rent controls have

the effect of reducing the total revenues that a wholesaler receives from dealers, then the wholesaler is likely to have fewer dealer-operated stations than it would in the absence of the rent control and to spend less money maintaining the stations. Alternatively, the wholesaler might try to make up for the lost lease revenues by increasing the price it charges the dealer for gasoline (assuming the wholesale price cap on gasoline is not binding). In that case, the wholesaler effectively bears more risk, because more of its revenues would come from the sale of a commodity whose price fluctuates, rather than from rents. This increased risk increases the wholesaler's cost of selling gasoline through stations operated by lessee-dealers. The wholesaler likely would respond to this cost increase by using fewer dealer-operated stations or investing less money in maintaining the stations. In short, the rent controls likely would reduce the number and quality of gasoline stations, increase gasoline prices, and cause inconvenience for consumers, who would have to travel farther to find gas stations.

Third, and perhaps most important, Hawaii's law prohibiting "encroachment" (and its predecessor "divorcement" law⁽¹³⁾) constrain the ability of both incumbents and new entrants to establish new stations. In 1991, Hawaii passed a divorcement law that imposed a temporary moratorium on the building of any new company-operated stations, which was extended in 1993 for two more years.⁽¹⁴⁾ In 1995, Hawaii continued the moratorium but revised it slightly.⁽¹⁵⁾ In 1997, Hawaii replaced divorcement with an anti-encroachment law barring oil companies as well as jobbers from opening company-operated stations within a radius of one-eighth of a mile around every dealer-operated station in an urban area and one-quarter of a mile in other areas.⁽¹⁶⁾

Published economic research demonstrates that anti-encroachment and divorcement laws tend to increase retail gasoline prices. A National Bureau of Economic Research study found that company-operated stations can be the most efficient form of management for high-volume, low-service gasoline stations.⁽¹⁷⁾ Laws that limit marketers' ability to establish new company-operated stations thus force them to adopt higher-cost organizational forms, and these increased costs likely are passed through to consumers in the form of higher gasoline prices. The most comprehensive of the published economic studies, conducted by a senior FTC economist, found that state divorcement and anti-encroachment laws tend to increase retail prices by an average of 2.6 cents per gallon.⁽¹⁸⁾ Another study found Maryland's divorcement law, the first in the nation, raised self-service gasoline prices by 1.4 to 1.7 cents and full-service prices by 5 to 7 cents per gallon at stations that were formerly company-operated.⁽¹⁹⁾ We are aware of no study specifically estimating the effect of Hawaii's divorcement and anti-encroachment laws, but we know of no reason that these laws would not have effects in Hawaii similar to their effects in other states. Indeed, the FTC warned in 1985 that the divorcement law already under discussion in Hawaii "would unquestionably increase the costs of gasoline distribution, eliminate legitimate price competition, and raise prices for motor fuel to consumers."⁽²⁰⁾

Legal restrictions on a marketer's ability to establish company-operated stations also may discourage new entry. There is evidence from the record of *Anzai v. Chevron*, Hawaii's now-settled lawsuit against many of the gasoline marketers, showing that Hawaii's anti-encroachment law served to stifle the efforts of BHP, former owner of the Tesoro refinery, to embark on what it hoped would be a low-priced volume retail business.⁽²¹⁾ This constraint may especially discourage retail entry by jobbers (who purchase unbranded gasoline from refiners) or smaller oil companies, which tend to rely more heavily on company-operated stations instead of franchised dealers.⁽²²⁾

2. Likely Effects of Price Controls

Most economists and antitrust experts doubt that price controls are a viable mechanism to increase consumer welfare in markets where competition is possible, and we see no reason that competition is not possible in Hawaii's gasoline market. Historical experience demonstrates that price controls tend to create shortages, reduce quality, and generate other inefficiencies.⁽²³⁾

The U.S. experience with gasoline price controls in the 1970s confirms the predictions of economic reasoning. In 1971, gasoline prices were regulated as part of the Nixon Administration's two-year adoption of economy-wide wage and price controls. In 1973, the federal government prohibited refiners and marketers from charging prices that exceeded their average prices on May 15, 1973, plus adjustments for changes in costs. Though not identical to the price controls in Act 77, the federal controls were similar in two key ways: (1) they applied both to wholesale and to

retail prices, and (2) prices were adjusted based on costs.(24) A report by the Federal Trade Commission's Bureau of Economics concluded that the federal price controls led to the adoption of higher-cost production methods and sporadic shortages manifested in gasoline lines.(25)

Customers queued up at gasoline stations are perhaps the most visible example of the inefficiencies resulting from the shortages created by gasoline price controls, but myriad other examples actually occurred during this period: limited station hours, Sunday station closures, "odd-even" purchasing restrictions based on license plate numbers, and restrictions on the number of gallons the customer could purchase in a single trip to the gasoline station. Also noteworthy are the secondary effects of such inconveniences, which included efforts to hoard gasoline and, in some instances, an increased hazard of car fires because people began storing additional gasoline in containers in their trunks.(26) Some research even shows that the inconvenience and other inefficiencies associated with gasoline station lines cost consumers more than they saved as a result of regulated gas prices.(27)

The price controls in Act 77 likely would create shortages. Act 77 ties maximum retail prices in Hawaii to wholesale prices on the West Coast. Tying regulated prices in Hawaii to West Coast prices might not always create shortages. For example, when other sources of imported gasoline are cheaper than the West Coast, the price cap is less binding. The price controls could, however, create shortages when low West Coast prices coincide with a refinery outage in Hawaii. In that case, the price cap would discourage imports precisely when they are most needed.

Even in the absence of refinery problems in Hawaii, the specific formula in Act 77 has the potential to create shortages. For example, the transportation margin needs to reflect not just the out-of-pocket cost of transporting gasoline, but also the time value of money while the product is in transport, the risk that prices might change while the product is in transport, and the likelihood that prices will fall when an entire tanker-load of product enters the market. The assumed transportation margin of four cents per gallon may be below the efficient level. FTC staff have seen no evidence that transportation costs are this low, and evidence from Hawaii's lawsuit against certain of the incumbent gasoline marketers suggests that transportation costs may be substantially higher.(28)

Firms may also reduce customer convenience or quality in response to the price controls. For example, the price caps apply only to self-service regular gasoline. A retail station operator could potentially evade the price cap by offering only mid-grade, premium, or full-service. The U.S. experience with gasoline price controls reveals other ways that firms increased customer convenience or decreased quality in response to price controls. Some stations demanded "tips," while others gave customers "free" gasoline if they bought items such as rabbit's-foot keychains, will forms, or bars of soap at inflated prices. Regular customers received preferential access to gasoline. Refiners sometimes reduced octane ratings.(29)

In short, FTC staff believe that the costs of price controls to consumers would almost certainly outweigh any consumer benefits.

3. Alternative Policies to Reduce Costs and Prices

Policymakers concerned about gasoline prices in Hawaii might find it productive to assess the likely impact of several alternative policies that have the potential to reduce gasoline prices by reducing costs and/or enhancing competition. Possible options include:

- Repeal Hawaii's anti-encroachment law, so that incumbent refiners and jobbers could build additional company-operated stations in advantageous locations and new entrants would have the option of operating their own stations instead of using franchised dealers.
- Eliminate Hawaii's legislation mandating rent caps for lessee-operated gasoline stations.

- Under merger law, antitrust officials can challenge mergers or acquisitions likely to foster tacit or explicit collusion.⁽³⁰⁾ Hawaii's Attorney General should have resources sufficient to assess whether future mergers or acquisitions are likely to substantially lessen competition.⁽³¹⁾

The relationship between terminal access, import prices, and retail prices is another topic that may merit further consideration. Record evidence from Hawaii's lawsuit against the gasoline marketers, as well as economic logic, confirm that the greatest constraint on the pricing of the two local refiners is a marketer's credible threat to purchase gasoline from outside Hawaii.⁽³²⁾ If DBEDT's ongoing study and other evidence show that wholesale prices are not competitive, then policymakers may want to consider options that would improve access to existing terminals for new entrants. Hawaii has no public or private terminal that guarantees third parties nondiscriminatory access to its docks, tanks and pipelines; the State could explore innovative ideas to ensure third party access, on a nondiscriminatory basis.

4. Concluding Comments

FTC staff recognize that gasoline prices have been a highly contentious issue in Hawaii, and that legislators often face strong pressure from citizens to take action against prices that are perceived as "too high." We urge you to consider, however, that a decision to impose price controls is also, in most cases, a decision to supplant competitive forces with direct administrative intervention. A significant body of research and experience suggests that price controls have a poor record of improving consumer welfare in markets where competition is possible, and may in fact cause more harm than good in the long term.

For this reason, we believe the Hawaii Legislature acted with great foresight when it included in Act 77 the provisions delaying the implementation of price controls, so that DBEDT could study their potential impact and assess alternative policies to reduce gasoline prices in Hawaii. Substantial evidence suggests that the alternatives to price controls would best promote consumer welfare, and we urge legislators to consider this evidence when evaluating policies intended to affect gasoline prices.

Endnotes:

1. This testimony represents the views of the staffs of the Office of Policy Planning, the Bureau of Economics, the Bureau of Competition, and Western Region (San Francisco) Office of the Federal Trade Commission and does not necessarily represent the views of the Commission or any individual Commissioner. The Commission has, however, voted to authorize staff to submit this testimony. My oral responses to your questions represent my own views.

2. Federal Trade Commission Act, 15 U.S.C. § 45.

3. *Shell Oil Co., et al.*, 125 F.T.C. 769 (1998) (consent order requiring Shell and Texaco to divest certain assets on the island of Oahu as a condition of entering into a joint venture to combine certain gasoline marketing assets); *Pacific Resources, Inc.*, 111 F.T.C. 322 (1988) (consent order issued following U.S. district court's issuance of preliminary injunction to block Pacific Resources' acquisition from Shell Oil Company of certain petroleum terminaling and distribution assets and operations in the State of Hawaii).

In recent years, the Commission has investigated, among others, the mergers of Chevron and Texaco, Exxon and Mobil, and BP and Amoco. In 2001, the Commission investigated the proposed merger of petroleum refiners Valero Energy and Ultramar Diamond Shamrock. See *Valero Energy Corp.*, C-4031 (Feb. 19, 2002) (consent order); *Chevron Corp.*, C-4023 (Jan. 2, 2002) (consent order); *Exxon Corp.*, C-3907 (Jan. 30, 2001) (consent order); *British Petroleum Company p.l.c.*, 127 F.T.C. 515 (1999) (consent order). Moreover, the *Shell Oil Co.* consent order referenced in the preceding paragraph stemmed from the planned combination of the nationwide refining and marketing businesses of Shell and Texaco.

The Commission also has conducted nonmerger investigations and workshops involving gasoline markets, and submits public comments in regulatory proceedings. In March 2001, the Commission, using the competition analysis principles in the Merger Guidelines, completed an investigation of a spike in reformulated gasoline (RFG) prices in several Midwest states in the spring and summer of 2000. *Midwest Gasoline Price Investigation, Final Report of the Federal Trade Commission* (Mar. 29, 2001). Also in 2001, the Commission concluded its investigation of gasoline price increases in West Coast markets. *FTC Closes Western States Gasoline Investigation*, FTC Press Release (May 7, 2001). In addition, in August 2001, the Commission held an initial public conference to examine factors that affect prices of refined petroleum products in the United States. *FTC to Hold Public Conference/Opportunity for Comment on U.S. Gasoline Industry*, FTC Press Release (July 12, 2001). A second public conference was held in May 2002. *FTC to Hold Second Public Conference on the U.S. Oil and Gasoline Industry in May 2002*, FTC Press Release (Dec. 21, 2001). Commission staff also recently filed public comments with the Environmental Protection Agency concerning "boutique fuel" regulations. Comments of the Staff of the General Counsel, Bureaus of Competition and Economics, and the Midwest Region of the Federal Trade Commission, *Study of Unique Gasoline Fuel Blends ("Boutique Fuels"), Effects on Fuel Supply and Distribution and Potential Improvements*, EPA 420-P-01-004, Public Docket No. A-2001-20 (Jan. 30, 2002).

4. See, e.g., Letter from Joseph J. Simons, Director, FTC Bureau of Competition, and R. Ted Cruz, Director, FTC Office of Policy Planning, to Gov. George E. Pataki of New York (Aug. 8, 2002) available at <http://www.ftc.gov/be/v020019.pdf>; Letter from Joseph J. Simons, Director, FTC Bureau of Competition, and R. Ted Cruz, Director, FTC Office of Policy Planning, to Hon. Robert F. McDonnell, Commonwealth of Virginia House of Delegates (Feb. 15, 2002) available at <http://www.ftc.gov/be/V020011.htm>; Letter from Ronald B. Rowe, Director for Litigation, FTC Bureau of Competition, to Hon. David Knowles, California State Assembly (May 5, 1992); Prepared Statement of Claude C. Wild III, Director, FTC Denver Regional Office, before the State, Veterans, and Military Affairs Committee of the Colorado State Senate (Apr. 22, 1992); Letter from Claude C. Wild III, Director, FTC Denver Regional Office, to Hon. Bill Morris, Kansas State Senate (Feb. 26, 1992); Letter from Claude C. Wild III, Director, FTC Denver Regional Office, to David Buhler, Executive Director, Utah Department of Commerce (Jan. 29, 1992); Letter from Thomas B. Carter, Director, FTC Dallas Regional Office, to Hon. W.D. Moore, Jr., Arkansas State Senate (Mar. 22, 1991); Letter from Jeffrey I. Zuckerman, Director, FTC Bureau of Competition, to Hon. Jennings G. McAbee, Chairman, Ways and Means Committee, Other Taxes and Revenues Subcommittee, South Carolina House of Representatives (May 12, 1989).

5. *Anzai v. Chevron Corp.*, Civ. No. 98-00792 (SPK) (D. Haw., filed Oct. 1998).

6. Marketers face significant restrictions on opening new company-operated stations; see pp. 5-7 *infra*.

7. See, e.g., TOS 15961 (document filed in the *Anzai* litigation; estimating refinery capacity for various years); Expert Report of Dr. Jeffrey J. Leitzinger at 57 (June 23, 2000) (document filed in the *Anzai* litigation; estimating total volume of gasoline sales for residential consumers in Hawaii).

8. See, e.g., Expert Report of Leitzinger, *supra* note 7, at 37.

9. See, e.g., TXCC 0017473-77 (document filed in the *Anzai* litigation) ("Perhaps [Texaco's] biggest threat to [the two local refiners] is importing product."); SHB 015051-52 (document filed in the *Anzai* litigation) (Shell looking at importing as way to negotiate lower price from local refiner); HI 1093382-83 (document filed in the *Anzai* litigation) (Chevron, one of the local refinery owners, expresses concern internally about Texaco's ability to import "product and drive the market down").

10. *Theatre Enterprises v. Paramount Film Distributing Corp.*, 346 U.S. 537, 541 (1954) ("Circumstantial evidence of consciously parallel behavior may have made heavy inroads into the traditional judicial attitude toward conspiracy; but 'conscious parallelism' has not read conspiracy out of the Sherman Act entirely.").

11. This testimony focuses on factors that affect prices by affecting costs and competition. We are also aware that gasoline taxes directly affect retail gasoline prices, and that Hawaii's state and local gasoline taxes exceed the national average. (In 2002, combined state and local gasoline taxes in Hawaii averaged 35.1 cents per gallon, as compared with a national average of 23.6 cents.) See American Petroleum Institute, *Nationwide and State-by-State Motor Fuel Taxes* (July 2002). FTC staff have independently verified tax rate information reported in this publication.

12. The 1997 legislation circumscribing company-operated stations also imposed commercial rent control on rents that oil companies (refiner, marketer, or wholesaler/jobber) can charge lessee-dealers for the use of company-owned stations and prevents them from converting lessee-dealer stations to company-operated stations. The rent control aspects of this law have not been put into effect, pending litigation. Last year a federal court ruled that this aspect of the law is an unconstitutional regulatory taking, on the ground that the rent cap would not necessarily decrease retail gasoline prices and likely would increase them. *Chevron v. Cayetano*, 198 F. Supp. 2d 1182 (D. Haw. 2002). Act 77, enacted the following month, combines the rent cap with wholesale and retail price controls. The district court's decision is currently on appeal before the Ninth Circuit.

13. Anti-encroachment and divorcement laws both limit competition between refiners/marketers and lessee-dealers. Laws banning encroachment limit a refiner's and/or marketer's ability to establish new company-operated stations within a certain distance of existing dealer-operated stations. Divorcement laws either prohibit refiners and/or marketers from operating their own stations or prohibit them from opening and operating new stations.

14. Act 295 (S.B. No. 1757); Act 329 (S.B. No. 124).

15. Companies could open two new company-operated stations for every new dealer-operated station, and company-operated stations that were closed could be replaced by a new company-operated station within a one-mile radius of the closed station. Act 238 (S.B. No. 487).

16. Act 257 (H.B. No. 1451).

17. Asher A. Blass and Dennis W. Carlton, "The Choice of Organizational Form in Gasoline Retailing and the Cost of Laws that Limit that Choice," 44 *J.L. & Econ.* 511 (2001).

18. Michael G. Vita, "Regulatory Restrictions on Vertical Integration and Control: The Competitive Impact of Gasoline Divorcement Policies," 18 *J. Reg. Econ.* 217 (2000).

19. Furthermore, these stations reduced their operations by nine hours per week. Other stations in the locale of the divested stations also raised prices. John M. Barron and John R. Umbeck, "The Effect of Different Contractual Arrangements: The Case of Retail Gasoline Markets," 27 *J.L. & Econ.* 313 (1984).

20. Letter from Terry Calvani, Acting Chairman, Federal Trade Commission, to the Honorable Peter K. Apo (Dec. 23, 1985). The bill was Hawaii House Bill 1376.

21. See, e.g., Parry (BHP's Vice President of Marketing in Hawaii) Dep. Tr. in the *Anzai* litigation, at 19-27.

22. For example, BHP sought to use company-operated stations in the early 1990s so that it would have more control over their image, operations, and pricing policies. See Dr. Sumner La Croix Dep. Tr. in the *Anzai* litigation, at 888, 897-99 and Dep. Ex. 3 at v and 63. In general, a refiner or marketer has an interest in preventing its retail stations from exploiting locational monopoly power that would enable the station operator to increase prices.

23. See, e.g., N. Gregory Mankiw, *Principles of Microeconomics* 128 (2d ed. 2001) ("Economists usually oppose price ceilings and floors."); Fiona M. Scott Morton, "The Problems of Price Controls," *Regulation* at 53 (Spring 2001) ("Competition is a better tool than price controls for protecting consumers."); John E. Calfee, "Why Pharmaceutical

Price Controls are Bad for Patients," *AEI on the Issues* at 1 (March 1999) ("Almost all economists hate almost all price controls.").

24. Federal regulations allowed individual firms to raise prices by an amount equal to increases in their own production costs; Act 77 adjusts prices based on changes in estimated industry-wide average costs of product and transportation for Hawaii's gasoline marketers and retailers.

25. Scott Harvey and Calvin T. Roush, Jr., *Petroleum Product Price Regulations: Output, Efficiency, and Competitive Effects*, Staff Report of the Bureau of Economics to the Federal Trade Commission (Feb. 1981). The regulations permitted refiners and marketers to pass through increases in their own costs of production with a one-month lag. Thus, when world oil prices increased because of events like OPEC price increases or the Iranian revolution, temporary shortages would occur because companies could not immediately increase prices to reflect the higher cost of crude oil. Gasoline lines and other forms of nonprice rationing were the result. In the absence of the price controls, gasoline prices would have reflected increases in crude oil prices relatively rapidly, and most nonprice rationing would have been avoided because consumers would have reduced consumption in response to the price increase.

26. Robert L. Bradley, Jr., *Oil, Gas & Government: The U.S. Experience 1631-34* (1996).

27. Scott Morton, *supra* note 23, at 51.

28. See, e.g., THC 55 003377-79 (document filed in the *Anzai* litigation); TXU 0013405 at 0013440 (document filed in the *Anzai* litigation).

29. *Bradley*, *supra* note 26, at 1634-36.

30. *FTC v. H.J. Heinz Co.*, 246 F.3d 708, 716 (D.C. Cir. 2001) (merger law rests upon the theory that, where rivals are few, firms will be able to coordinate their behavior, either by overt collusion or by implicit understanding, in order to restrict output and achieve profits above competitive levels) (quoting, in part, *FTC v. PPG Indus.*, 798 F.2d 1500, 1503 (D.C. Cir. 1986)).

31. The FTC and the Hawaii Attorney General's office have twice investigated proposed mergers of incumbent gasoline marketers in Hawaii. See *Pacific Resources, Inc. and Shell Oil Co., et al.*, *supra* note 3.

32. See *supra* note 9.