Exhibit 1–Public Version of the Expert Report of Kevin M. Murphy, Ph.D.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

FEDERAL TRADE COMMISSION 600 Pennsylvania Avenue, N.W. Washington, D.C. 20580 Plaintiff, v. WHOLE FOODS MARKET, INC. 550 Bowie Street Austin, Texas 78703 and WILD OATS MARKETS, INC. 1821 30th Street Boulder, Colorado 80301 Defendants.	)	Civ. No. 1:07-CV-01021

EXPERT REPORT OF KEVIN M. MURPHY, PH.D.

Dated: July 9, 2007

1. I am Kevin Murphy, the George J. Stigler Distinguished Service Professor of Economics at the University of Chicago Graduate School of Business. I have been retained by the Federal Trade Commission to determine whether the proposed acquisition of Wild Oats by Whole Foods will tend to substantially lessen competition in any relevant antitrust markets.[1]

2. I have considered the available qualitative and quantitative evidence, and concluded that the proposed acquisition will substantially lessen competition in 18 local markets in which Wild Oats and Whole Foods presently compete.[2] Consequently, this proposed transaction puts consumers in these markets at the risk of facing higher prices, less variety and decreased services. The competitive injury will persist, as entry or repositioning of other companies into those markets will not restore the pre-acquisition competitive dynamic for several years, at the least.

3. My report is organized as follows. Section I provides an overview of my analysis. Section II provides my qualifications as an expert. Section III describes my assignment. Section IV provides a summary of my opinions. In section V, I discuss certain background facts that will provide a foundation for my analysis. In Section VI, I present a series of statistical analyses that demonstrate the patterns of substitution and competition we see in the marketplace. In Section VII, I show that the view of the marketplace implied by my statistical analysis fits well with other evidence provided in this case. In Section VIII, I use the information gained from the analysis of the statistical and qualitative evidence to determine the likely competitive impacts of the acquisition. In Section IX,

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1 Chicago Partners is being compensated at $850 per hour for my work on this assignment. To date, I have spent approximately 100 hours on this project.

2 This does not include an additional 23 stores in markets where Whole Foods and Wild Oats currently compete and competition may be affected by the acquisition but the Wild Oats store is smaller than 25,000 square feet.

I show how my economic analysis fits into the antitrust framework outlined in the 1992 Horizontal Merger Guidelines. Section X concludes my report.

4. My analysis is ongoing. I understand that more evidence and data will become available as discovery in this case progresses. To the extent that new evidence and data are relevant to my opinions, I will, to the extent possible, include them in my analysis. Consequently, I reserve the right to supplement or alter the opinions expressed in this report.

I. Overview

5. Wild Oats and Whole Foods are both premium brands that specialize in offering consumers natural and organic products. The similarity of the product offerings and target demographic of these two competitors make them particularly goods substitutes in the eyes of many consumers.

6. Statistical analyses of prices, margins and sales confirm that Whole Foods and Wild Oats are each other's most significant individual competitors in many local markets. Entry by Whole Foods into a local market where Wild Oats currently operates has a substantial effect on Wild Oats. Margins, prices and sales at the Wild Oats store fall substantially, with sales falling by roughly [redacted] percent, margins falling by [redacted] percent and prices falling [redacted] percent. No other putative competitors have similar effects on either Whole Foods or Wild Oats.

7. The fact that Whole Foods and Wild Oats are differentiated products – differentiated somewhat from each other but even more so from other competitors - has important implications for the proposed acquisition. As the statistical evidence on entry illustrates and the factual evidence from documents, deposition testimony and industry accounts confirms, changes in the level of competition between Wild Oats and Whole Foods

can affect outcomes, prices, margins and non-price competition on quality and service in localized markets.

8. Most importantly, the proposed transaction involves Whole Foods acquiring 19 Wild Oats stores in local markets where Wild Oats and Whole Foods currently compete head-to-head or would have competed once Whole Foods opened a store currently in development.[3] Given the nature of the differentiated products competition described above, the proposed acquisition will reduce competition and harm consumers in these local markets.

9. Whole Foods plans to close about [redacted] of the acquired Wild Oats stores across roughly [redacted] local markets. This will unambiguously reduce competition and harm consumers in these markets. The statistical evidence on prices and margins suggests that prices will increase in these markets after the acquisition and that these price effects will be non-transitory. Importantly, the price effects are just one symptom of the reduction in competition in these markets. Evidence from the record shows that the loss of Whole Foods' most direct competitor in these markets will reduce competition on non-price dimensions as well. Both Whole Foods and Wild Oats respond to competition from one another by improving product service and other aspects of product quality when they face nearby competition from each other – this increment of competitive discipline will be lost in these local markets.

10. In addition to the loss of price and non-price benefits, all customers who previously shopped at Wild Oats will now be forced to shop at a less preferred option. Many will move to the Whole Foods store (anywhere

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[3] Here I use a distance of five miles between the stores to define head-to-head competition and restrict attention to Wild Oats stores that are larger than 25,000 square feet.

between [redacted] of them based on Whole Foods own estimates) even though they chose not to shop at Whole Foods. All of these consumers are unambiguously worse off due to a loss of their top choice in addition to any loss from higher prices and reduced service.

11. Consumers will also suffer anticompetitive harm in markets where Whole Foods plans to operate the existing Wild Oats store under the Whole Foods banner, due to a reduction in competition. Empirical evidence suggests that Whole Foods charges lower prices and competes more on other dimensions when they face competition from Wild Oats. That competitive pressure will be lost in these markets with the proposed acquisition.

12. The analysis presented above illustrates how the proposed acquisition will affect competition in "overlap" markets – local markets where Whole Foods and Wild Oats currently compete. In terms of the analysis of mergers outlined in the *1992 Horizontal Merger Guidelines*, the anticompetitive effects of this acquisition may be viewed as a reduction in competition in the relevant market defined as "Premium Natural and Organic Supermarkets." That market definition is consistent with the breadth of products over which the effects will be concentrated and it satisfies the *Guidelines* definition of a relevant antitrust product market based on a price increase standard of one percent.

13. From an economic standpoint, this market definition correctly highlights the issues in this case. The proposed acquisition will significantly affect competition and consumer welfare in a relatively narrow segment of the broader economic market of retail supermarkets. The economic significance of these effects is reflected in higher prices, reduced choice and other losses associated with reduced competition for consumers who currently shop at the affected premium natural and organic supermarkets.

II. Qualifications

14. I earned a doctorate degree in economics from the University of Chicago in 1986. I received my bachelor's degree, also in economics, from the University of California, Los Angeles, in 1981.

15. At the University of Chicago, I teach economics in both the Graduate School of Business and the Department of Economics. I teach graduate level courses in microeconomics, price theory, empirical labor economics, and the economics of public policy issues. In these courses I cover a wide range of topics, including the incentives for firms and individuals, the operation of markets, and the impacts of regulation and the legal system. Most of my teaching focuses on two things: how to use the tools of economics to understand the behavior of individuals, firms and markets; and how to apply economic analysis to data. My focus in both research and teaching has been on integrating economic principles and empirical analysis.

16. I have authored or co-authored more than sixty articles in a variety of areas in economics. Those articles have been published in leading scholarly and professional journals, including the American Economic Review, the Journal of Law and Economics, and the Journal of Political Economy. Several of my articles consider economic issues related to industrial organization and antitrust.[4]

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[4] *See* "Vertical Restraints and Contract Enforcement" (with Benjamin Klein), *Journal of Law and Economics*, Vol. 31, October 1988, pp. 265-297; "Vertical Integration as a Self-Enforcing Contractual Arrangement" (with Benjamin Klein), *American Economic Review*, Vol. 87, May 1997, pp. 415-420; "A Competitive Perspective on Internet Explorer" (with Steven J. Davis), *American Economic Review*, Vol. 90, May 2000, pp. 184-187; "Economic Perspectives on Software Design: PC Operating Systems and Platforms" (with Steven J. Davis and Jack MacCrisken), in David S. Evans, editor, *Microsoft, Antitrust and the New Economy: Selected Essays* (Norwell, MA: Kluwer Academic Press of Massachusetts, 2002); "The Economics of Copyright 'Fair Use' In a Networked World" (with Benjamin Klein and Andres Lerner), in *American*

17. I am a Fellow of the Econometric Society and a member of the American Academy of Arts and Sciences. In 1997 I was awarded the John Bates Clark Medal, which the American Economic Association awards once every two years to an outstanding American economist under the age of forty. In 2005 I received a five-year unrestricted research award from the MacArthur Foundation in recognition of my past contributions and potential future contributions to economics.

18. In addition to my position at the University of Chicago, I am a Principal at Chicago Partners, a consulting firm that specializes in the application of economics to law and regulatory matters. In my teaching, research and consulting, I use basic principles of economics to analyze the costs and benefits of decisions made by businesses, the courts and governmental agencies

19. I have consulted in the area of antitrust for over 20 years. Over that period I have worked on more than 50 antitrust cases involving mergers and acquisitions, contracting practices, monopoly maintenance, collusion, damages, vertical restrictions, and tying arrangements. I have testified in Federal Court in four of those cases and have submitted expert reports in several additional cases.

20. My qualifications are summarized in greater detail in my *resume*, which is attached to this report as Appendix A. Appendix A also contains information relating to previous employment, testimony, and publications. My compensation does not depend on either the findings of my investigation or the outcome of this case.

Economic Review, Vol. 92, May 2002, pp. 205-208; and, "Entry, Pricing and Product Design in an Initially Monopolized Market" (with Steven J. Davis and Robert H. Topel), *Journal of Political Economy*, Vol. 112, Feb. 2004, pp S188 – S225; "The Antitrust Economics of Interchange Fees" (with Benjamin Klein, Kevin Green, and Lacey Place), Forthcoming, *Antitrust Law Journal.*

III. Assignment

21. The Federal Trade Commission has asked me to determine whether the proposed acquisition of Wild Oats by Whole Foods will tend to substantially lessen competition in any relevant antitrust markets. Specifically, I have been asked to consider the following economic questions:

    a. Do Whole Foods and Wild Oats compete directly with one another?

    b. Do Whole Foods and Wild Oats compete directly with third parties?

    c. How does the competition between Whole Foods and Wild Oats compare to that which might exist between either of those firms and third parties?

    d. Do "premium natural and organic supermarkets" constitute a relevant antitrust market as defined in the 1992 *Horizontal Merger Guidelines*?

    e. Are third parties likely to enter/reposition in a timely manner that is sufficient to fully replicate the competitive constraints that Whole Foods and Wild Oats currently place on one another?

    f. Will the proposed acquisition substantially reduce competition in any relevant antitrust markets?

IV. Summary of Opinions

22. Based on my analysis to date, I have formed the following general opinions:

    1. Whole Foods and Wild Oats compete directly with one another.

    2. The services provided by Whole Foods and Wild Oats are much better substitutes for one another than are the services provided by either of them with the services provided by conventional supermarkets, other types of retailers such as Trader Joe's.

3. Entry by Whole Foods into a geographic market has a significant impact on profit margins as well as the prices and quantity of products sold at Wild Oats stores.

4. The proposed closure of [redacted] Wild Oats stores following the acquisition will have an anti-competitive effect by denying consumers the benefits of price and non-price competition and reducing consumer choice. Competition may also be affected in other markets where Whole Foods plans to close [redacted] Wild Oats stores and [redacted] that was scheduled to open.

5. Competition is also likely to be reduced in markets where Wild Oats and Whole Foods now compete head to head, and where both stores will continue to operate under common ownership after the acquisition.

6. To the extent that Wild Oats represents a unique competitive constraint on Whole Foods, competition may also be reduced in local markets where Whole Foods currently does not compete head-to-head with Wild Oats and Wild Oats might have entered in the future, but for the acquisition.

23. In reaching my opinions, I have considered transcripts and exhibits from the depositions and investigational hearings of employees of Whole Foods, Wild Oats, and third parties; internal emails, strategic plans, and other business documents from Whole Foods, Wild Oats, and other firms; published reports and articles; data produced in the course of discovery pursuant to this matter and pursuant to the "second request" and subpoena issued to Whole Foods and Wild Oats by the FTC; and other related documents and information, including the results of my own

research. A list of the documents and other materials that I considered in reaching my conclusions is attached to this report as Appendix B.

V. Background

A. Basic Description of Parties

24. Whole Foods Markets, Inc. ("Whole Foods") proposes to acquire Wild Oats Markets ("Wild Oats") for $671 million in cash and assumed debt. Whole Foods currently operates 191 stores, while Wild Oats currently operates 110 stores.

25. Acquisition has been a substantial part of the growth of both Whole Foods and Wild Oats. Whole Foods began business in Austin, TX in 1980 as a merger of Safer Way Natural Foods and Clarksville Natural Grocery. Over the next two decades it engaged in a series of acquisitions, totaling over 60 stores across the country. In 1984, it purchased Blue Bonnet Natural Foods Grocery of Dallas, TX. In 1988, it purchased Whole Food Company of New Orleans, LA and in 1990 it acquired Mr. Walter Robb's store in Mill Valley, CA (Mr. Robb is now co-President of Whole Foods). In 1991, Whole Foods acquired Wellspring Grocery (of North Carolina) and in 1992 it acquired Bread and Circus (of Massachusetts and Rhode Island). In 1993, it acquired Mrs. Gooch's in Los Angeles, CA and in 1995 it acquired Bread of Life in the San Francisco, CA area, Unicorn Village in Florida and Oak Street Market in Evanston, IL. In 1996 it acquired Fresh Fields, doing business along the East coast and the Midwest. In 1997 it acquired Granary Market in Pacific Grove, CA, Bread of Life in Florida and Merchant of Vino in Detroit, MI. In 1999 it acquired Nature's Heartland, of Boston, MA and in 2000 it acquired Food 4 Thought Natural Food Market and Deli in Sonoma County, CA. In 2001 it acquired Harry's Farmers Market stores in Atlanta, GA. In 2006, it purchased Whole Grocer of Portland, ME. Now, in 2007, it proposes to acquire Wild Oats.

26. Wild Oats is a "rollup" (i.e., the result of a series of acquisitions) that was executed over the course of some years through the acquisition of widely disparate stores. As a result, Wild Oats' fleet of stores exhibits considerable heterogeneity with regard to the size and the quality of its sites. Newer Wild Oats stores are relatively large (in excess of 25,000 square feet. Older Wild Oats stores are considerably smaller (a recently closed store in New York City was only 2700 square feet), thus carry a relatively small number of items (particularly perishables) and have few amenities (such as coffee, juice and sushi bars, community meeting rooms, etc.), and tend to be in relatively poor locations in terms of visibility, access, and proximity to the residences of the upscale consumers comprising these stores' target demographic. The documentary and econometric evidence suggest that the smaller, older Wild Oats stores are not competitively significant. As such, my analysis is limited to markets with Wild Oats stores whose square footage exceeds 25,000 square feet, and that do business under "Wild Oats" banners (as opposed to the relatively down-market stores that Wild Oats operates in Southern California as "Henry's Farmers Market"). There are 38 Wild Oats stores that satisfy this criterion.

B. An Introduction to Other Producers Relevant to the Analysis

27. Several other types of retailers are potentially relevant for my analysis since they may compete to varying degrees with Whole Foods and Wild Oats. These retailers include other premium natural and organic supermarkets, premium supermarkets, specialty stores, conventional supermarkets, farmer's market stores, independent health foods stores, and mass merchandisers.

28. Other purveyors of premium and organic foods such as Earth Fare and New Seasons provide the most direct competition to Whole Foods and Wild Oats.

29. Earth Fare currently has 13 stores and operates in four states: Georgia, North Carolina, South Carolina and Tennessee.[5] Earth Fare started with a single natural grocery store in North Carolina in 1975. It added its second store in 1997 and started its significant expansion in 1998 and has since expanded to its current 13 stores.[6]

30. New Seasons operates nine stores in the Portland Oregon area with a tenth scheduled to open in 2008.

31. Specialty stores such as Trader Joe's, premium supermarkets such as Wegman's, farmer's market style stores and small health food stores compete with Wild Oats and Whole Foods to a certain extent on some dimensions but typically carry a different mix of products and/or target a different client base.

32. Conventional supermarkets such as Kroger and mass merchandisers such as Wal-Mart also have some overlap with the product mix and customer base targeted by Whole Foods and Wild Oats. Some stores of both types offer a more limited selection of natural and organic items than do Whole Foods and Wild Oats and differ in terms of product focus and the attributes that they emphasize.

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[5] http://www.earthfare.com/storeinfo/1200/

[6] http://www.earthfare.com/cgi-bin/customize?history.html

C. Product differentiation plays a key role in the economic analysis of the competitive impact of this proposed transaction

33. My economic analysis of market definition and competitive effects regarding this proposed transaction began with recognition that Whole Foods and Wild Oats are highly differentiated, premium positioned, brands. Both firms have focused historically on the sale of natural and organic foods and holistic health and beauty aids, and they premise their respective strategies on providing exceptional service and quality in ways that fit an upscale, gourmet/epicurean and "socially responsible" lifestyle.

34. Other participants in the broad marketplace have their own distinct combination of features. Conventional supermarkets offer a wide range of products and compete aggressively on price. More upscale markets like Wegman's offer premium meats and produce items that compete for some of the same high-end customers targeted by Whole Foods and Wild Oats, but put less emphasis on natural and organic products. Specialty stores like Trader Joe's also sell some products that overlap with those sold by Whole Foods and Wild Oats, but do not focus to the same extent on the sale of perishable items (which account for roughly 70% of Whole Foods' business versus roughly [redacted] for Trader Joe's). Mass merchandisers such as Wal-Mart also overlap on some items but differ even more in their overall business model. From an economic perspective all of these types of stores compete with Whole Foods and Wild Oats, but they are clearly significantly differentiated relative to the parties.

D. For several years, Whole Foods has been following a strategy of competing directly with Wild Oats by building new stores in direct competition with Wild Oats existing stores.

35. Evidence from company documents, deposition testimony, accounts in company filings and accounts in the business press provide consistent evidence that Whole Foods has followed a strategy of competing head-to-head with Wild Oats by entering many of Wild Oats existing markets. This strategy can be seen clearly in the data. Exhibit 1 lists the stores, date of entry and distance to the nearest Wild Oats store as well as the size of the Whole Foods and Wild Oats stores. The stores listed in Exhibit 1 account for 17 of the 95 Whole Foods openings since 1998 and about half of the Whole Foods stores currently located within 5 miles of a Wild Oats.

36. Whole Food's CEO John Mackey summarizes the Whole Foods strategy in his February 2005 posting:

> "OATS was a flourishing, profitable, and rapidly growing company before Whole Foods launched its attack on OATS with its Boulder store about 6 years ago which has badly hurt OATS in its home town. Since then they have opened up at least 15 stores that have obliterated successful OATS stores in Denver, Santa Fe, Los Angeles, the San Francisco Bay Area, Albuquerque, Portland, Sacramento, and several others. Why do you think OATS is no longer successful? Why do you think they are losing money now? Although their management continues to deny it and blames "distributor problems", "road construction", and "cannibalization" the facts are there to see if you follow this industry closely (and I do)--Whole Foods is systematically and relentless taking OATS business away from them one market after another.[7]"

37. A more detailed version of the strategy is laid out in an email to a stock analyst:

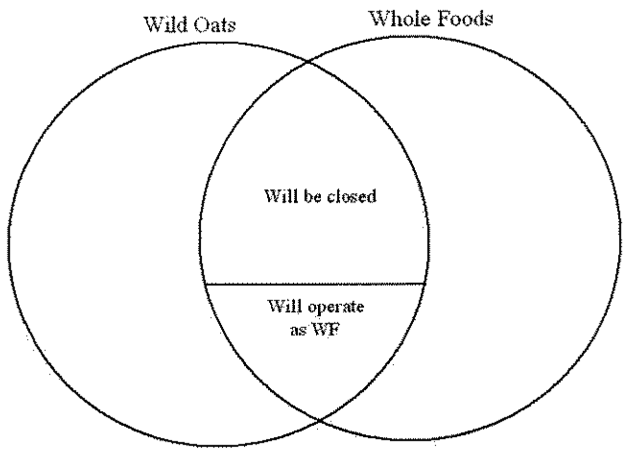
[7] 2/23/05 812 am Rahodeb Posting, Yahoo! Finance message board.

"Go see for yourself where our stores compete head to head right now. We are killing them in Boulder, Dallas, Sunnyvale, San Anselmo…In the next 12 months Whole Foods will open very large stores in direct competition with OATS in the following markets: Santa Fe--40,000 sq. ft.--within 1/2 mile of 2 OATS stores (22,000 and 18,000 sq. ft) and within 4 miles of a third one (10,000 sq. ft.). This store is scheduled to open on October 6. The 2 stores within 1/2 mile are 2 of OATS highest volume stores. I predict a repeat of Boulder. Despite what OATS has told you and other analysts, we've hurt them very, very badly in Boulder. West Hollywood--24,300 sq. ft--within 1.5 miles of 14,000 sq. ft. OATS store and we have a better location. Scheduled to open January 2000. Ft. Lauderdale--32,350--within 1.5 miles of 15,000 sq. ft. OATS store and we have a much better location. April 2000. Cherry Creek (Denver)--42,000 sq. ft. within .5 miles of high performing 25,000 sq. ft. OATS and within 3 miles of a second OATS store. Scheduled to open in July of 2000. Willowbrook (Chicago)--36,000 sq. ft. within 2.5 miles of new 25,000 sq. ft. OATS store in Hinsdale. Scheduled to open in July 2000. Boca Raton--28,000 sq. ft.--within 1 mile of 12,000 sq. ft. store. Scheduled to open in January 2001….You can also expect us to likely announce new locations by our first quarter in St. Louis, Albuquerque, Phoenix, Indianapolis, Portland (so much for over paying for Nature's), and Cincinnati. All these stores will be directly competitive with substantially smaller OATS stores."[8]

[8] WFM-008-00000637

E. Overlaps in the Proposed Transaction.

38. The following diagram provides a taxonomy for Whole Foods and Wild Oats stores that is relevant to the competitive impact of this proposed acquisition:



39. Evidence from company documents, deposition testimony, accounts in company filings and accounts in the business press provide consistent evidence that Whole Foods would close (either immediately or in the near future) a [redacted] of the Wild Oats stores it hopes to acquire [redacted], see Exhibit 2).[9] Importantly, the large majority of stores to be closed are in markets where Whole Foods and Wild Oats now compete directly. The anti-competitive effect evident from such closures of stores that directly compete with one another is counted by Whole Foods as a major component of the acquisition's value. This was position was explicitly expressed in the testimony of Mackey from Whole Foods:

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[9] WFM-PI-50016983c Project Goldmine v.76. This does not include the Wild Oats' 29th Street store in Boulder, Colorado that has not been opened yet, but had been slated for opening by now but for this proposed acquisition.

> "[I]t self evidently will lessen competition in those markets that we are competing with Wild Oats in when we are going to intend to close stores. Again, isn't that true in every one of the acquisitions any one of these guys do? One of the motivations is to eliminate a competitor. I will not deny that. That is one of the reasons why we are doing this deal. That is one of the reasons we are willing to pay $18.50 for a company that has lost $60 million in the last six years. If we can't eliminate those stores, then Wild Oats, frankly, isn't worth buying."[10]

40. My analysis will focus on effects in the overlap markets shown in the middle of the diagram above and listed in Exhibit 2. This includes both markets where Whole Foods plans to close the competing store and where Whole Foods plans to keep that store open.

41. Below I elaborate on the types of anticompetitive effects that are likely to materialize in these markets. My econometric analyses and review of the qualitative evidence indicates that the acquisition of Wild Oats by a firm that it acknowledges as its closest competitor[11]is likely to result in anti-competitive effects in price and non-price dimensions (including quality, service and importantly, the breadth of product offerings available to consumers).

F. Summary of Background Facts

42. As I noted above, the competition between Whole Foods and Wild Oats is best characterized as differentiated products competition between sellers offering products with similar characteristics. From an economic standpoint, other producers compete with both Whole Foods and Wild Oats and constrain the prices that either firm can charge for its services. Other sellers with a similar mix of characteristics (such as Earth Fare and

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[10] Investigational Hearing of Mackey, p. 75

[11] "Whole Foods Markets. [redacted] when we are head to head." WO-VS-9-000119 @ 164.

New Seasons) are likely to provide the most direct competition in the geographic markets where they compete with Whole Foods and/or Wild Oats. Competition from other firms, such as traditional supermarkets or mass merchants, is less direct because their product offerings are poorer substitutes for those of Whole Foods and Wild Oats.

43. In order to address the effects that the proposed acquisition will have on consumers I have conducted a series of econometric analyses designed to estimate the effects that competition from different parties has on prices and quantities of goods sold by Whole Foods and Wild Oats. The results of these investigations provide direct evidence on the degree of substitutability between the services provided by different suppliers and provide a clear picture of the differentiated products competition outlined above.

44. The results of these exercises also aid in the definition of the relevant antitrust market as defined in the 1992 *Horizontal Merger Guidelines*. I return to this issue and show how to apply the *Guidelines* approach to this case in Section VIII below.

VI. Econometric Evidence on Substitution and Price Effects

45. To examine the degree of substitution between different types of stores, I first performed an econometric analysis of the effect that entry of each store type has on sales and operating margins at Wild Oats and Whole Foods. The magnitude of these effects will help identify the relative degree of substitution between the product arrays offered by entering sellers and the products offered by Whole Foods and Wild Oats. The key idea is that entry by sellers of products that are the best substitutes for those offered by Whole Foods and Wild Oats will tend to have the largest effects on Whole Foods' and Wild Oats' prices and/or sales.

46. Since this is a merger case, a major question in my analysis will be the effect of reducing the number of sellers in the relevant markets. This question is directly applicable to the proposed transaction since Whole Foods plans to close a [redacted] of Wild Oats stores in the "overlap" markets after the acquisition. In addition, in cases where Whole Foods will take over Wild Oats stores that currently compete with Whole Foods stores, we will move from two independently operated to stores to two stores operated by a single firm.

47. While there is some experience with a reduction in the number of competitors, the natural and organic supermarket business is a growing industry and entry is the more common event.

48. Since my primary interest is in changing the number of competitors I focus on "banner" entry.[12] A banner entry event is the entry of the first store of a given brand into a given geographic market. Since geographic markets for groceries tend to be local, I examine banner entry into market areas defined using a five mile radius. Since the fleet of Wild Oats stores is very heterogeneous, and the testimony of senior executives from both parties indicates that smaller, older stores owned by Wild Oats are not probative of the competition offered by larger, newer Wild Oats store.[13] I

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[12] Banner entry refers to the store opening representing the first entry by a particular player into a market (as opposed to subsequent "infill" store openings by that player within that same market). Since conventional supermarkets and mass merchants are found in almost all reasonably large geographic markets I will not be able to focus on banner entry of those retailers as a group even though I am able to focus on "banner" entry by individual brands within those groups. As such, the estimated effect for this category is not strictly comparable to the estimated effects for other categories in which there is a single brand.

[13] "One reason that Wild Oats has had a hard time competition (sic) with us is that their smaller stores don't allow them to have a full selection especially in perishables and prepared foods", A.C. Gallo, co-President of Whole Foods, WFM-001-00006226. Deposition of Freya Brier, General Counsel and Senior VP of Wild Oats (business responsibilities include real estate), pp. 125-127. "Q: Do you recall why stores that were

limit my analysis to those Wild Oats stores exceeding 25,000 square feet in size. I also limit my analysis to stores operated under the Wild Oats banner. Wild Oats operates other stores under the Henry's Farmers Market banner but these are quite different from the Whole Foods Markets and newer Wild Oats stores. As such, they are excluded from my analysis.

49. Exhibit 3 shows the impact of banner entry by various food and grocery retailers on Wild Oats' existing-store sales and gross margins. The column headed "Effect on Net Sales" shows the estimated impact of banner entry on Wild Oats' existing-store sales.[14] The unit for these estimates is the change in the natural logarithm of net sales.[15] So, for example, the point estimate of [redacted] for the impact of new banner entry by Whole Foods implies a percentage reduction in net sales at an existing Wild Oats store of [redacted] which is shown in the "% change" column in the Exhibit. This means that entry by Whole Foods reduces sales at nearby Wild Oats stores by [redacted] Notice that entry by Whole Foods has by far the largest impact on Wild Oats sales of all the candidate market participants shown in the Exhibit. The next largest impacts are for New Seasons and Sun Flower Market, whose entries reduces Wild Oats sales by [redacted] percent respectively,

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excluded from [a list of stores evaluated with Wild Oats' sales forecasting model] were excluded? A: .... [redacted]

[14] Throughout my analysis I will use dollar sales to measure the change in Wild Oats business. Since dollar sales of a particular item represents the product of price times quantity, this measure captures changes in both prices and the physical volume of products sold.

[15] The use of logarithms allows me to interpret the estimated regression coefficients as the percentage reductions in sales following entry. A simple inversion of the logarithm - i.e. applying an exponential - yields that percentage reduction in sales.

followed by Trader Joe's, with an impact of [redacted] percent. This pattern of effects indicates that the introduction of competition from Whole Foods has a larger effect on Wild Oats than does the introduction of competition from other sources.

50. The next column of Exhibit 3 shows the effects that banner entry has on Wild Oats gross margins. The gross margin is defined as store-wide revenues less costs of goods sold, expressed as a fraction of revenues (e.g. a firm with sales revenue of $10,000,000 and costs of goods sold of $6,000,000 would have a margin of 0.40 = (10,000,000-6,000,000)/10,000,000). For reference, Wild Oats store gross margins have averaged about [redacted] percent over the years included in Wild Oats' data production. The estimate in the first row of Column (1) indicates that Wild Oats margins net of shrinkage[16] *fall* by about [redacted] percentage points (-[redacted]) after entry by a Whole Foods store within 5 miles. The estimate for New Seasons is positive suggesting that entry by New Seasons actually cause Wild Oats margins to rise.

51. The estimates in the "Effect on Margins" column demonstrate that entry by Whole Foods has a much larger impact on Wild Oats' gross margins than does entry by any other food/grocery retailer. This agrees with the effects I found for the effects of entry on Wild Oats' sales. The next largest impact after Whole Foods is for Sun Flower Market, whose entry reduces Whole Foods gross margins by about [redacted]. Other sellers

16 "Shrinkage" refers to the loss of saleable product as perishables rot. It is a phenomenon that can be expected to occur after significant competitive entry, as customers are diverted to the entrant store. As such, while I deduct the impact of shrinkage on margins prior to running my regressions, I note that the very existence of significant (and more specifically, increased) shrinkage implies the existence of significant competitive interaction.

have negligible effects on Wild Oats margins. The results in Exhibit 3 imply that Whole Foods is Wild Oats closest competitor.

52. Exhibit 4, which is organized in the same way as Exhibit 3, repeats the foregoing exercise but looks at entry impacts on Whole Foods stores rather than Wild Oats stores. The results show the impact of entry by other food/grocery retailers on Whole Foods' sales and margins. Notice from the exhibit that there are no recorded events in which Wild Oats entered a market within 5 miles of an existing Whole Foods store during the study period. The exhibit demonstrates that the effects of entry by the indicated sellers are typically small. The largest impact is for Earth Fare, another Premium Natural and Organic Supermarket, whose entry reduces Whole Foods' sales by about [redacted] percent and Whole Foods' margins by about [redacted] percentage points. Magnitudes for the effects of entry by other sellers on Whole Foods are roughly the same—though slightly smaller—than the effects I found for the same sellers on Wild Oats. For example, Exhibit 3 showed that entry by Trader Joe's reduced Wild Oats sales by about [redacted] percent; the effect of Trader Joe's on Whole Foods' sales shown in Exhibit 4 is roughly [redacted]

53. Taken together, the estimates in Exhibits 3 and 4 indicate that Whole Foods and Wild Oats are closer competitors to each other than to the other candidate sellers studied.

54. The central concern of the *Merger Guidelines* is with the impact of competition on *prices*. If unit costs are constant—i.e. they do not vary with the amount sold—then changes in gross margins can be used to infer the magnitude of price effects, via

$$\frac{\Delta P}{P} = \frac{\Delta m}{1 - m}$$

The left hand side of this formula is the percentage change in prices, which with constant costs is equal to the change in the margin, Δm, divided by 1.0 minus the margin.

55. If unit costs in a representative store are not constant then changes in margins can be a misleading indicator of price effects. For example, if the average unit cost of goods sold declines with sales, then this method of inferring price changes from changes in margins will overstate the impact of entry on prices. Conversely, it will understate the impact of entry on prices if unit costs rise with per-period sales. I therefore requested and received data on Whole Foods and Wild Oats prices and units sold, broken out by store, item (identified by Universal Product Code, or UPC) and time period. The data I received cover all items sold, in all stores, from January of 2004 to May of 2007. This time interval includes five of the Whole Foods banner entry events used in constructing Exhibits 3 and 4.[17] In light of the evidence in Exhibits 3 and 4, I focus my price analysis on the impact of entry by Whole Foods on Wild Oats prices.

56. To estimate the impact of banner entry on Wild Oats' prices, I used a sales-weighted[18] regression of individual items' price changes, where "items" are unique UPCs. Again referring to Wild Oats "treatment" stores as those that experienced banner entry by an indicated retailer, I

[17] There were six Wild Oats stores that experienced a Whole Foods entry within five miles but for one of those stores, Shelbyville, KY, I only have data on six weeks before the transaction so I dropped it from our analysis.

[18] Since different items are purchased more or less, and thus constitute more or less of the revenues of a store, it would be misleading and inappropriate to weigh equally the price impact of all items. Thus, applying sales, or revenue, weights to the estimated price changes of each item permits me to calculate a weighted average price change that is representative of the commerce actually being transacted at the relevant store(s).

restricted the sample to those UPCs that were available for at least 13 weeks of the year before the entry event and in at least 7 weeks of each 6-month intervals after entry (the corresponding requirement was 13 weeks in any 12 month interval), in both the treatment store in question and in at least one "control" store.[19][20] Rapid turnover of UPCs implies that these items account for a small fraction of the total number of UPCs in the data, but they account for a much larger fraction of total sales in the representative Wild Oats store. For the average treatment store, these items account for two-thirds of sales.

57. Exhibit 5 shows the estimated impact on Wild Oats prices and sales for each of the five Whole Foods entry events in the data. For each entry event, the Exhibit shows the percentage change in store-specific Wild Oats prices between the 12 months prior to Whole Foods entry and three post-entry periods—0-6 months post-entry, 7-12 months post-entry, and 13-24 months post-entry. The Exhibit also reports changes in each store's total weekly sales between the 12 months prior to Whole Foods entry and each of these post-entry periods, again using the same treatment-control methodology used for the price analysis.

58. Of the five entry events summarized in Exhibit 5, two—West Hartford, Connecticut in October of 2005 and Fort Collins, Colorado in June of 2004—offer sufficient post-entry price and volume data to discern a time-pattern of effects. For example, the first row of the Exhibit shows the impact of entry by Whole Foods into West Hartford. Compared to Wild

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[19] In order to form accurate, but estimates of the impact of entry, and noting that there is reason to believe that competitive responses to entry may be anticipatory in nature (i.e. commence prior to the date of actual entry) I exclude from the pre-entry period the 8 weeks immediately prior to the opening of the Whole Foods store.

[20] For this exercise, control stores are non-treatment Wild Oats stores located in the same region that are at least 25,000 square feet in size.

Oats "control" stores that did not face entry, prices in Wild Oats' West Hartford store were [redacted] percent lower in the [redacted] immediately following entry by Whole Foods, [redacted] following entry, and [redacted] or more. The corresponding percentage reductions in sales in West Hartford were [redacted], [redacted] and [redacted] for these time intervals. So, although the effect of entry on prices in West Hartford dissipates over time, the impact on sales appears to grow.

59. The initial [redacted] price effect in Fort Collins is [redacted] percent and remains about [redacted] below their pre-entry level even after [redacted] And, as in West Hartford, the effects on sales grow substantially over time. In the second year post-entry, sales in Wild Oats' Fort Collins store had fallen by over [redacted] compared to control stores. It is noteworthy that the Fort Collins Wild Oats store was closed in December of 2006.

60. Exhibits 6a-b provides a graphical representation of the effects of Whole Foods entry on Wild Oats sales and margins that confirms the price and sales effects shown in Exhibit 5. Exhibit 6a presents the results for sales while Exhibits 6b presents the results for margins. The horizontal axis in each figure shows quarters from the date of Whole Foods' entry. So -1 refers to one quarter before the quarter of entry and +1 refers to one quarter after the quarter of entry, and so on.

61. Exhibit 6a shows that sales of the affected Wild Oats stores fall abruptly at the time the Whole Foods store enters, and do not recover. The effects of Whole Foods entry on sales are remarkably large and persistent—the typical Wild Oats "treatment" store suffers nearly a [redacted] percent reduction in sales due to new competition from Whole Foods, and never recovers. As Exhibit 6b shows, margins fall somewhat pre-entry and then fall very sharply at the time the competing Whole Foods store enters. Margins then

recover somewhat over the subsequent several quarters. After a year, margins in Wild Oats "treatment" stores remain roughly [redacted] percentage points below the margins of stores that did not experience entry. At fixed unit costs these margin reductions would imply price declines of [redacted] percent at the [redacted] percent gross margin typical of a Wild Oats store.

62. In summary, the econometric estimates contained in this section of my report suggest that the products offered by Whole Foods and Wild Oats are uniquely good substitutes for one another and that Whole Foods stores have the largest competitive effects on Wild Oats.

Cross-Sectional Evidence: Ownership Structure in Multi-Store Locales

63. Since the data produced by the parties contain no events in which Wild Oats entered Whole Foods markets (and only one, fairly recent, example in which Wild Oats exited a Whole Foods market) these data do not offer a direct test of the extent to which the Wild Oats presents unique constraints to Whole Foods that will disappear as a result of the proposed transaction.

64. In addition, my Whole Foods entry analysis does not directly address the issue contemplated by the *Guidelines* market definition test in those cases where Whole Foods would choose to operate both stores under a single banner—if a particular set of suppliers (here Whole Foods and Wild Oats) were under single ownership, would prices be materially and sustainably higher?

65. As a result, I undertook a third econometric study that compares Whole Foods' margins across two groups of markets. The first group is composed of those Whole Foods stores that do not have a competing Wild Oats store within 5 miles (the "control" group) and the second group is composed of those Whole Foods stores that do have a competing Wild Oats store within 5 miles ("the treatment group"). I divide the universe

of Whole Foods stores as follows: (i) Whole Foods stores in locales with neither another Whole Foods nor a Wild Oats within 5 miles; (ii) Whole Foods stores with exactly one other Whole Foods but no Wild Oats within 5 miles (WF-WF locales); and (iii) Whole Foods stores with exactly one Wild Oats but no other Whole Foods within 5 miles (WF-WO locales). My empirical analysis (i.e. regression) compares Whole Foods margins in the WF-WO locales (where the other local store is owned by Wild Oats) to margins in the WF-WF locales (where W F owns both stores). This difference estimates the change in margin that might occur if independent ownership of the two stores were changed to joint ownership by Whole Foods.

66. Results are shown in Exhibit 7, which shows estimated margin differences between WF-WO locales and WF-WF locales, at both the store and departmental levels. At the store level, Whole Foods margins are about [redacted] tenths of a percentage point [redacted] lower in WF-WO locales than in WF-WF locales though this difference is not statistically significant from zero at the five percent level (p-value = 0.1625). The 95 percent confidence interval runs from [redacted] implying that these data are consistent with a competitive effect on margins ranging from [redacted] at this confidence level. Assuming constant unit costs, the point estimate of [redacted] implies that store-wide prices are about [redacted] when Whole Foods faces local competition from Wild Oats. To the extent that this experiment replicates the change in ownership structure contemplated by the proposed acquisition, it implies that Whole Foods' prices would [redacted] in markets where coexisting Whole Foods and Wild Oats stores would come under common ownership.

67. The results at the department level show that Whole Foods' margins are [redacted] in the WF-WF stores than in the WF-WO stores for both produce and seafood. The estimated effects are [redacted] percent for produce items and [redacted] for seafood, and both estimates are statistically significant at the .05 level. The effect for meat is [redacted] percent with a p-value of .051. The fact that margins are [redacted] in produce, seafood and meat when the two stores in an area are jointly owned by Whole Foods is consistent with the more unique nature of Whole Foods and Wild Oats in these departments. In contrast, the effect for groceries--where the two sellers are less differentiated from others—is [redacted]

68. Exhibit 8 presents a final comparison that is a hybrid of the entry analysis in Exhibits 3 and 4 and the ownership analysis in Exhibit 7. In Exhibit 8, I compare the effect of Whole Foods entry on the margins of Whole Foods stores to the effect of Whole Foods entry on margins of Wild Oats stores. Again, I focus on entry within a five mile radius of the existing store and focus on Whole Foods stores that have no other Wild Oats or Whole Foods store within 5 miles.[21] The results for the own store entry suggest essentially [redacted] in margins – the estimate implies a decline of roughly [redacted] The effects of competitive entry on margins are much larger, [redacted] percentage points, and are similar to those shown in Exhibit 3. Since both events show the effect of entry of a new Whole Foods store within 5 miles, the difference between the effects reflects the owner of the existing store – whether the current store is owned by the entrant, Whole Foods, or a different firm, in this case Wild Oats. These results suggest an ownership effect of roughly [redacted] percentage points on margins (corresponding to a [redacted] percent effect on prices at fixed

[21] Since I do not have events where Wild Oats enters into markets with an existing Whole Foods I cannot perform the corresponding analysis for the effects of Wild Oats entry.

unit costs).[22] This is similar, but somewhat smaller than the competitive entry effect shown in Exhibit 3.

69. The econometric evidence presented above is consistent with the proposition that Whole Foods and Wild Oats are indeed the closest substitutes for one another, and that the entry of other supermarkets that target the same customers with a similar format (e.g. Earth Fare) also have economically significant effects. The econometric evidence also suggests that the entry of Trader Joe's has some effect on Whole Foods and Wild Oats but significantly less than the effect of entry by Whole Foods on Wild Oats. Finally, the econometric estimates show no substantial effect of the entry of conventional supermarkets, premium markets or mass merchants.[23].

VII. Other Evidence on Substitution and Price Effects

70. The factual record in this case is consistent with the preceding econometric evidence. As discussed earlier, the Project Goldmine document created by Whole Foods indicates its intent to close roughly [redacted] Wild Oats stores, most of which currently overlap with Whole Foods stores. The document also provides estimates of the Wild Oats store revenues that Whole Foods anticipates being transferred, or diverted, to the Whole Foods store in that market following the closure of the Wild Oats store. The magnitude of these diversions is [redacted] and sometimes reaching [redacted]--indicating that Whole Foods must be viewed as a good substitute by Wild Oats customers. In

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22 Even though my ultimate interest is in prices, I present the results for margins since measuring prices is somewhat problematic due to the changing composition of SKUs.

23 The lack of effect for these retailers may also reflect the "saturation" of their part of product space. There are often many conventional markets and mass merchants so that the entry of any one would not have a substantial effect on sales or margins.

Appendix C I have mapped the local area around these Wild Oats stores, noting the locations of the parties' stores and various other food retail outlets. Despite the presence of all these third party competitors, some located closer to Wild Oats than is the Whole Foods store, Whole Foods anticipates that Wild Oats customers will divert to its own stores in [redacted] Since more closely located third party stores would be better substitutes for Wild Oats if all else were equal, these maps illustrate that the [redacted] diversions from Wild Oats to Whole Foods indicated in Project Goldmine reveal Whole Foods' perception that there exists a uniqueness of substitutability between Wild Oats and Whole Foods among Wild Oats customers.

71. A wide variety of documents from both parties attest confirm the significant price competition that follows the entry of Whole Foods into a Wild Oats market. For example, Whole Foods FY 2005 Second Quarter Board Report, states "[M]argins are a little low [in Whole Foods-Louisville] because we are having to match some ridiculously low special pricing at Wild Oats. Sales at Oats are way down, and they are responding with some desperation pricing"[24]; Similarly, documents from Wild Oats show that Wild Oats created separate pricing zones for [redacted] and [redacted] to defend against Whole Foods entry into those markets.[25] Many other documents show that Whole Foods recognized this competition and responded:

    1. WFM-002-00000802 ("Wild Oats ran their second 20% off the entire store 72 hour sale. [redacted]"

[24] Whole Foods FY 2005 Second Quarter Board Report page C-2.

[25] EOAT-0326498

2. WFM-006-00001131 ("[redacted]"

3. WFM006-00000963 ("We had a competitive pricing strategy in place for the two new stores…to claim market share from competitors..[redacted]opened…on[redacted]…We have put in place a competitive pricing strategy to beat[redacted]to the punch…[redacted]is now trying desperate measures such as buy one get one free promotions and 20% to 50% off with very limited success. The [redacted]store [in[redacted] is still…heavily discounting product to try and drive sales."

4. WFM-006-00004600 Whole Foods matches Wild Oats prices in the Rocky Mountain Region.

1. Earth Fare and New Seasons

72. Evidence from the record indicates that Earth Fare, New Seasons and similar stores compete directly with Whole Foods and Wild Oats. The format and positioning of these stores is quite similar to that offered by Wild Oats and Whole Foods. In addition, the econometric evidence presented in Exhibit 4 showed a relatively large effect of [redacted]entry on Whole Foods pricing and sales.

73. A large set of Whole Foods documents indicates Whole Foods' intent (and then action) to aggressively undercut [redacted]on the pricing of key items.[26]

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[26] WFM-123-00016521; WFM-128-00041877; WFM-128-00041879; WFM-123-00016697; WFM-128-00034534; WFM-123-00016954; WFM-128-00042158; WFM-123-00017250; WFM-109-00032941; WFM-128-00005472; WFM-130-00002286; WFM-128-00005691; WFM-025-00011349; WFM-109-00022114; WFM-123-00019231; WFM-127-00000958; WFM-051-00000248; WFM-127-00001529; WFM-128-00001536; WFM-128-00008649; WFM-109-00041987; WFM-109-00009099; WFM-127-00002500; WFM-128-00016935;

74. Substantial evidence from Wild Oats indicates its perception that New Seasons is a particularly good substitute. Furthermore, Mr. Perry Odak, ex-CEO of Wild Oats, indicated in his Investigational Hearing (pp. 91-92) that New Seasons was one of his closest competitors on service (other than Whole Foods). Similarly, Mr. Walter Robb, co-President of Whole Foods, indicated in his Investigational Hearing that consumers view New Seasons as a particularly good substitute in the minds of consumers.[27]

2. Trader Joe's

75. Evidence from the record indicates that Trader Joe's competes with Whole Foods and Wild Oats but to a significantly smaller degree. In particular,

1. Trader Joe's overlaps with Wild Oats and Whole Foods on only a handful of items. While Trader Joe's is an important competitive constraint on these items, Trader Joe's does not offer a competitive constraint on the vast majority of Wild Oats and Whole Foods products.[28] This is reflected in John Mackey's report to the Board on 9/13/2006.

> "Trader Joe's continues to rapidly expand, but our new large store format has created a large comparative gap with them. TJ's is now a "fill-in" store for Whole Foods, but lacks a wide enough product selection to be considered to be a complete alternative to our stores."[29]

WFM-013-00011261; WFM-109-00026157; WFM-109-00049582; WFM-109-00049583; WFM-051-00003642; WFM-128-00042101.

[27] Investigational Hearing of Walter Robb, p. 227, 285

[28] WFM-GEN-00020217 indicates that Whole Foods only price checks TJs on about [redacted] in each region, and only matches prices on about [redacted] in each region.

[29] WFM-008-00014799

2. Trader Joe's uses a small-store format. This is highlighted in the deposition of Bane from Trader Joe's.[30]

> "Q: What's the average size of a Trader Joe's store in terms of floor space?
> A: [T]here's some older stores that would be smaller probably, but right now we're looking for about 12,000 square feet, with maybe 10,000 on the sales floor is a good size for us.....
> Q: [redacted]
> A: [redacted]
> Q: [redacted]
> A: [redacted]"[31]

3. Trader Joe's is not upscale, lifestyle, high service, etc. This too is reflected clearly in the testimony of Trader Joe's' Bane.

> "[O]ur format is going after value, and I just don't see that, you know, adding a service department provides the value for our customers, so we don't do it. We're real dogmatic about it, because our stores are the size that we can't ...support service departments"[32]"...[redacted]"[33]

> "Q: [redacted]
> A: [redacted]
> Q: [redacted]

[30] Investigational Hearing of Bane, pp. 44-45

[31] Investigational Hearing of Bane, pp. 44-45.

[32] Investigational Hearing of Bane, p. 62.

[33] Investigational Hearing of Bane, p. 114.

A: [redacted]"[34]

4. Trader Joe's does not offer the same level of [redacted] Once again the testimony of Bane makes this clear

"Q: [redacted]"[35]

In fact, only about [redacted] of Trader Joe's revenues come from perishables[36] compared to roughly 70% for Whole Foods.

76. Based on the differences highlighted in the factual record and the results of econometric analysis presented above I conclude that Trader Joe's does compete with Whole Foods and Wild Oats but to a significantly smaller degree than Wild Oats and Whole Foods compete with each other and other stores with a more similar format such as Earth Fare and New Seasons.

[34] Investigational Hearing of Bane, pp. 100-101.

[35] Investigational Hearing of Bane, p. 82.

[36] Trader Joe's response to CID.

3. Conventional Supermarkets

77. Consistent with the econometric evidence presented above, the evidence from the factual record indicates that conventional supermarkets are not as close substitutes for Whole Foods or Wild Oats as they are for each other. There are many reasons:

1. Conventional Supermarkets lack Whole Foods' or Wild Oats' variety of organic offerings. It is difficult for conventional markets to compete on organic offerings. If conventional supermarkets offer a lot of organic items, they do not sell enough with their current customer base, and many of the products spoil, reducing margins. But if conventional supermarkets only offer a few organic items, they cannot add customers with a high demand for organic offerings to their customer base. This is reflected in the statements of Mr. Perry Odak, ex-CEO of Wild Oats[37]:

> "[T]he issue is that until you have a predictable demand or takeaway at the store, you don't know how much to buy. If you buy too much and you don't sell it because you're trying to get in the market, you shrink it out and you lose money. If you buy too little, the consumer comes in your store and says you're not in the business... of organic and I'll go buy it someplace else.
>
> So...the conventionals have a very difficult time getting into this business. One...it's primarily a or predominantly a perishable business. And two, they have never been able to establish a predictable takeaway from the product.
>
> So you can walk any Safeway today, and I've walked hundreds of Safeways and counted the number of organic items even in their new stores, in produce, and it's 48 to 50 SKUs. You know, Whole Foods/Wild Oats probably has [redacted] in the department.

[37] Investigational Hearing of Mr. Perry Odak, pp. 77-78.

And you know, I have specifically sat and talked to the department managers there, and what happens is they tell me they get a big push, you got to get more organic, carry more organic. Then when they miss their numbers because... they bought too much and they shrunk out, they get heat from corporate headquarters to the store director, who then puts heat on the department manager, and the first thing he or she does is cut back on the amount of organic they have in the store. Because why? They get pressure to make their numbers.

And we've seen this for the five or six years I ran the company. This has been a consistent pattern. They have a big push on. It doesn't sell through. Their margins aren't where they ought to be, and it shrinks back and shrinks back and shrinks back. There's less and less organic in those stores."

2. While documents from Whole Foods indicate that they price check [redacted] conventional supermarkets on [redacted] they also show that [redacted] of those SKUs are in dry grocery and only [redacted] are in perishables. In contrast, nearly 70% of Whole Foods' revenues come from perishables.[38]

3. Documented attempts by conventional supermarkets to move closer to the Whole Foods/Wild Oats model have not impacted Whole Foods. This is reflected in Mackey's Q1, 2007 report to the Board[39]:

> "Safeway is continuing to roll out their "Lifestyle Stores". I don't believe these stores have had much real impact on us, although they've increased Safeway's comps a couple of hundred basis points (not that much when you consider the immense amount of capital invested)"

[38] WFM-019-00006972

[39] WFM-008-00021117

78. The evidence also confirms that mass merchants are not close substitutes. Mass merchants have the same problems as conventional supermarkets, often to a larger degree. In Q1, 2007 Mackey reported to his board that[40]:

> "[redacted] despite the hoopla in the media, hasn't had much impact in the organic market. I doubt they will because their core customers don't want to pay the higher prices and their non-core customers don't want to shop there for various reasons"
>
> "Some people want the cheapest food and some people want the highest quality food with high levels of customer service. Wal-Mart meets the first group of people and Whole Foods meets the needs of the second group.[41]"

Similarly, a Wild Oats' spokeswoman noted:

Mr. Mackey also has explained that

> "Right now I don't see too much of a customer overlap between Whole Foods and [redacted]....Whole Foods doesn't operate in the same markets as [redacted] and it caters to a higher-income shopper....I don't see [redacted] as a great threat to Whole Foods right now....The disparity of their customer base is too great..... There's very little overlap between our shoppers and [redacted] We're a specialty retailer and our customers don't focus on price first." [42]

79. From the point of view of market definition, the issue of how to treat premium supermarkets is somewhat moot since the major gourmet market chains, Wegman's, Central Market and Plum Market, are not present in any of the overlap markets.

VIII. Competitive Effects of the Acquisition

80. The evidence on substitution and the degree of competition between Whole Foods, Wild Oats and other retailers presented above provides

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[40] WFM-008-00021117

[41] John Mackey, http://www.wholefoods.com/blogs/jm/archives/2005/10/

[42] WFM-001-00005640

direct evidence for understanding the competitive effects of the proposed acquisition. In this section, I use that evidence to predict the competitive consequences of the acquisition in the local markets where Whole Foods and Wild Oats currently compete. Based on this analysis I find that the proposed acquisition will have anticompetitive effects in the local markets where Wild Oats and Whole Foods currently compete head-to-head.

Overlap markets where both firms currently compete and Whole Foods plans to close the competing Wild Oats store.

81. The competitive effect of the proposed acquisition of Wild Oats by Whole Foods will be most acute in markets where Whole Foods plans to close the Wild Oats stores with which it now competes. The econometric evidence shows that banner entry by Whole Foods into markets where Wild Oats was already present caused Wild Oats to reduce prices. On average, during the first year prices were [redacted] and remained roughly [redacted] in the second year after entry (see Exhibit 5).

82. Conceptually, the closure of the Wild Oats stores is essentially the reverse of the entry experiment with a move from having both firms present to having one firm present rather than a movement from one present to both present. However, the effects may not be exactly symmetric due to the fact the Whole Foods and Wild Oats are not identical competitors and we are adding Whole Foods in the entry analysis and eliminating Wild Oats in the candidate closures we wish to address. We might expect the effects of Wild Oats exit to be somewhat smaller owing to the greater size of Whole Foods in most of the overlap markets.[43]

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[43] Typically larger firms have larger competitive effects on smaller firms than vice-versa. Since Whole Foods is larger than Wild Oats (in terms of sales) in most of the markets in which they compete we might expect the effects of Wild Oats exit on Whole Foods

83. The entry of Earth Fare into direct competition with Whole Foods provides an alternative estimate of the effect of Wild Oats exit. The evidence from Exhibit 4 suggests that margins fell roughly [redacted] percentage points (corresponding to a price [redacted] with the entry of Earth Fare. The Earth Fare experience may be a useful benchmark for the case at hand since both deal with the effect of firms competing against Whole Foods and the available evidence suggests that both Earth Fare and Wild Oats have struggled in competition against Whole Foods.

84. The medium-run (12-24) effects on price we observe from the Whole Foods entry (adjusted for the difference in sales) which averaged [redacted] and the [redacted] effect we see from the Earth fare entry experiment suggest that prices will rise roughly [redacted] with the closure of the Wild Oats stores.

85. The closure of the Wild Oats stores will transfer [redacted] revenues to Whole Foods. On the whole, based on Whole Foods' own predictions, Whole Foods expects to capture [redacted] of current Wild Oats sales in these markets. Using a [redacted] incremental margin, the annual profit on these transferred sales will be roughly [redacted]. Indeed, this transferred revenue is a major motivation for the deal. The testimony of Whole Foods' Mackey makes this clear:

> "[I]t self evidently will lessen competition in those markets that we are competing with Wild Oats in when we are going to intend to close stores. Again, isn't that true in every one of the acquisitions any one of these guys do? One of the motivations is to eliminate a competitor. I will not deny that. That is one of the reasons why we are doing this deal. That is one of the reasons we are willing to pay

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to be smaller than the effect of Whole Foods entry on Wild Oats. On average, Whole Foods is roughly 3 times larger than Wild Oats in terms of sales in the markets where they compete head-to-head.

$18.50 for a company that has lost $60 million in the last six years. If we can't eliminate those stores, then Wild Oats, frankly, isn't worth buying."[44]

86. The closure of the Wild Oats stores would be harmful to consumers even if prices were not changed by the acquisition. Consumers that currently shop at Wild Oats have revealed that they prefer the combination of price, selection, quality, location etc. to that offered by the competing Whole Foods store—that is why they shop at Wild Oats rather than Whole Foods or another supermarket. For each of these customers, the appropriate loss from the closure could be measured by the price increase required to make them shift from Wild Oats to Whole Foods or another store. For example, if half of the current Wild Oats current business would shift to other stores in response to a 5 percent rise in price at Wild Oats (an implied demand elasticity of roughly 14) then we know that the loss from closure would be at least 5 percent of expenditures at Wild Oats for the half of the Wild Oats customers that would not switch. That would make the aggregate consumer loss at least 2.5 percent of current Wild Oats revenue (that is, a 5 percent loss for half of the business). Since the Lerner Index[45] for the Wild Oats stores implies an elasticity of [redacted] rather than 14 these calculations imply that the non-price loss from store closure may be quite high—many times the 2.5 percent of revenues calculated in this simple example. Indeed, the direct loss from closure may exceed the loss from higher prices.[46]

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[44] Investigational Hearing of Mackey, p. 75.

[45] The Lerner index uses markups to infer elasticity. In order to estimate the true price elasticity (which will determine consumer's willingness to pay), firms must set price holding other prices fixed. If firms set prices assuming other will match their price changes then the Lerner index will underestimate the true elasticity.

[46] Timely and effective entry and repositioning, if they were to occur, would mitigate this loss.

87. How long will these effects last? To the extent that Wild Oats is not profitable (in a long-run sense) in these overlap markets a small rise in price would not be eroded by entry or repositioning of other parties unless they are more effective competitors than Wild Oats. Consumers will lose in these markets for as long as the Wild Oats store would have remained in the market or until is replaced by an equivalent competitor.

Overlap markets where both firms currently compete and Whole Foods plans to continue to operate the competing Wild Oats store.

88. Competition will be reduced in the markets where Whole Foods and Wild Oats currently compete even if Whole Foods plans to keep the Wild Oats store open. The empirical evidence comparing markets where the same firm owns two stores to markets where two stores are owned by independent firms indicates that prices are roughly [redacted] in the joint ownership markets. Thus the evidence would suggest that prices in these markets will be roughly [redacted] as a result of the acquisition, with a larger impact in perishable items (see Exhibit 7).

89. The fact that pricing at Whole Foods and Wild Oats is constrained by competition from the other party is also evident from the deposition of Whole Foods and Wild Oats executives. Thus, Mr. Odak, the ex-CEO of Wild Oats testified:

> "[W]e knew from a competitive standpoint that we could not [redacted] Whole Foods and expect that we were going to build the business, so we as a pricing policy strove, where Whole Foods was a competitor, to [redacted] with Whole Foods on a market basket."[47]

90. Evidence from Whole Foods suggests that competition from Wild Oats had similar effects on Whole Foods' pricing and increased their efforts to compete on non-price dimensions as well:

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[47] Investigational Hearing of Perry Odak, pp. 40-41.

"Without competition we potentially become slow and lazy. Our prices go up and our customer service goes down… the opening of Wild Oats makes us take things to the next level. We can't afford to let Wild Oats actually provide the same level of customer service as us….we need to go above and beyond what we are presently doing. We need to be impressing our customers now before Wild Oats opens so that when they go and check it out (which much of Boulder will do) they'll say to themselves and their friends, "well that new store really wasn't all that, let's continue to shop at Whole Foods."[48]

91. Similarly, the entry of [redacted] into a market where Whole Foods operated spurred Whole Foods to increase its competitive efforts on both price and non price margins. This is reflected in the following excerpt from one of the quarterly reports that A.C. Gallo, co-President, made to the Whole Foods Board of Directors in 2005:

> "In June we will have an [redacted] market opening up about a half-mile from our [redacted] store and expect some fierce competition. We have been remodeling the [redacted] store, getting it ready to show [redacted] that it is a bad idea to open up too close to us."[49]

92. The elimination of the Wild Oats format will generate some loss to consumers from decreased variety, though there may also be a gain given that the median customer of the two stores seems to prefer the Whole Foods model. However, given that the Whole Foods option is already available in these markets, the real question is whether customers that do not currently shop at Whole Foods would prefer the change in format. Since those customers choose to shop at Wild Oats or another store this is significantly less likely than for the population as a whole. In particular,

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48 WFM-009-00011413

49 Q2-FY05 @ p. C-4

to the extent that the stores are close geographically we would expect these customers to prefer the option of the Wild Oats format.

93. The bottom line is that the acquisition will reduce competition and thereby raise prices by something on the order of one percent (with a larger impact in perishables) in the "overlap" markets where Whole Foods will continue to operate the Wild Oats store. It will also reduce non-price aspects of competition and reduce the variety of offering available to consumers in these markets.

94. If other firms are equally efficient entrants as Wild Oats, welfare will not be affected in the long run in these markets and entry would replace any long run competition that would be lost through the closing of the Wild Oats stores. To the extent that Wild Oats is a more viable competitive threat than the remaining alternatives, price and non-price competition would remain lower and consumer welfare would be reduced even in the long run in these markets.

IX. Application of the *1992 Horizontal Merger Guidelines*

95. In this section, I show how the economic analysis of the marketplace and the competitive impact of the acquisition described above fit into the *1992 Horizontal Merger Guidelines* approach. In particular, I find that

1. Premium Natural and Organic Supermarkets represent a relevant antitrust market using a SSNIP test of approximately 1 percent.
2. The market definition of Premium Natural and Organic Supermarkets effectively captures the competitive impact of the proposed acquisition.
3. That same market definition provides a useful economic framework for understanding the effects of the acquisition and the broader economic landscape in which it takes place.

A. The Relevant Product Market: Applying the Hypothetical Monopolist Test

96. The 1992 *Horizontal Merger Guidelines* provide a clear procedure for identifying the "relevant antitrust market" for purposes of analyzing a merger. In order to determine which products should be included in the relevant antitrust market we begin with each of the products sold by the two firms in question and perform the hypothetical monopolist test. In that test, we ask whether a hypothetical firm that was the sole seller of a given set of products would find it profitable to impose a small but significant (usually, but not always,[50] taken to be 5%[51]) non-transitory increase in the price of any of those products. If the answer is "yes" then the given set satisfies the relevant market test. If not then we add the product which is the next best substitute (defined in the *Guidelines* as the product that gains the largest share of the revenue diverted by a price increase).[52] The test is then repeated. Products are added sequentially in

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[50] "In attempting to determine objectively the effect of a "small but significant and nontransitory" increase in price, the Agency, in most contexts, will use a price increase of five percent lasting for the foreseeable future. However, what constitutes a "small but significant and nontransitory" increase in price will depend on the nature of the industry, and the Agency at times may use a price increase that is larger or smaller than five percent." Horizontal Merger Guidelines, Section 1.11.

[51] The Guidelines recognize the difference between the relevant market definition exercise and the evaluation of anticompetitive effects, and note that "[t]he "small but significant and non-transitory" increase in price is employed solely as a methodological tool for the analysis of mergers: it is not a tolerance level for price increases." (Guidelines, Section 1.0).

[52] Since the magnitude of diversions are determined by the magnitudes of both market share and cross elasticity, the Guidelines could add a firm/product with a lower cross-elasticity of demand with respect to products already in the relevant market than another firm, simply because that firm had a larger market share (i.e. revenue base). Yet, this would not take away from the fact that a set of smaller firms/products with greater cross elasticities of demand to those products already in the market might collectively present stronger competitive constraints to the products within the market.

this way until a sole seller would find it profitable to increase price by the amount deemed to be "small but significant".

97. Given the thousands of products sold by supermarkets, a product-by-product analysis is not feasible. Such an analysis would also be misleading because consumers do not typically choose retailers of the goods in question on a product-by-product basis; rather, they typically purchase an array of products from a single source. I therefore approach market definition by considering the collection of products provided by each of the individual retailers at issue and consider substitution by consumers across these collections. The hypothetical monopolist is then the sole seller of the goods and services offered by a given collection of firms. If a sole seller in control of that collection of firms was able to raise price a small but significant amount for a non-transitory period of time, that collection of firms would constitute a relevant antitrust market.

98. I begin with the market definition proposed by the FTC—Premium Natural and Organic Supermarkets—and I ask whether that definition satisfies the hypothetical monopolist test.[53] To the extent this definition passes that test we can conclude that the relevant market, as defined by the *Guidelines*, is no larger than Premium Natural and Organic Supermarkets.

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[53] The relevant product market definition exercise of the Guidelines solely focuses on demand side factors ("Market definition focuses solely on demand substitution factors--i.e., possible consumer responses. Supply substitution factors--i.e., possible production responses--are considered elsewhere in the Guidelines in the identification of firms that participate in the relevant market and the analysis of entry", Section 1.0 of the Guidelines). I have followed this dichotomized approach in the course of fulfilling the assignment I received from the FTC. Since the Guidelines approach to relevant market definition does not take into account price reductions due to supply-side substitution, whereas results based on the econometric analysis of real world margin/pricing outcomes may include the impact of such effects, such econometric analyses provide a conservative answer to the Guidelines exercise.

99. To implement the test we must ask which sources of supply fit the definition of premium natural and organic supermarkets and decide what magnitude of price increase represents a small but significant increase in price. I begin with Whole Foods and Wild Oats—as proposed by the FTC—and ask whether other sellers or sources of supply fit that definition. Based on the factual record in this case two particular competitors, Earth Fare and New Seasons are likely candidates.[54] I use the econometric and factual evidence cited above to investigate whether the services provided by these firms are in fact better substitutes for those provided by Wild Oats and Whole Foods than are the services provided by other candidate retailers such as premium supermarkets, conventional supermarkets, specialty retailers (such as Trader Joe's), or mass merchandisers (such as Wal-Mart).

A. Premium Natural And Organic Supermarkets Constitute a Well-Defined Relevant Antitrust Market for Purposes of Evaluating the Competitive Impact of this Proposed Transaction

100. Based on my econometric analysis and the evidence from the record, I apply the hypothetical monopolist test to the Premium Natural and Organic Supermarket market proposed by the FTC. I ask whether the empirical evidence developed above, and further evidence reported here, supports the hypothesis that a monopolist in this proposed market could implement a small but significant non-transitory increase in price. In terms of the percentage change in price deemed to constitute a small but significant non-transitory increase, I will follow what I understand to be

[54] See below for discussions of Earth Fare. For New Seasons, see Investigational Hearing of Mackey, p. 132, Investigational Hearing of Odak , pp. 91-92, Investigational Hearing of Walter Robb, p. 227, 285.

previous applications of the Guidelines to grocery store mergers and use a price change of one to two percent that persists for two years.[55]

101. The entry events used to address the degree of substitution above are also informative about the hypothetical monopolist question. The data in Exhibits 3, 4 and 5 above summarizes the evidence on the effect of entry into the candidate relevant product market defined as Premium Natural and Organic Supermarkets. The results indicate that entry reduces storewide margins by an average of [redacted] percentage points and prices by an average of [redacted] percent in the [redacted]. On average sales of the existing store [redacted] Based on the estimates in Exhibit 3 we would predict that eliminating Whole Foods as a competitor would allow Wild Oats to [redacted].

102. For purposes of my analysis, it is important to know whether these price effects are non-transitory. As predicted by economic theory, Exhibits 5 and 6 indicated that price and margin reductions [redacted] over time, but they [redacted]. The evidence from Whole Foods entry events — there are 5 such events, of which 2 provide evidence beyond one year post-entry — support a price effect of [redacted] after entry. Results from the cross-sectional analysis (Exhibit 7), which

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[55] Product markets are determined by the reasonable interchangeability between a product and substitutes for it, and two products are in the same market if consumers would switch from one product to the other in response to a "small but significant" and non transitory price change. Commentators have noted that, for retail markets characterized by high volume of sales but low profit margin per dollar of sales, a hypothetical price increase lower than 5% is appropriate. Harris & Jorde, Market Definition in the Merger Guidelines: Implications for Antitrust Enforcement, 71 Calif. L. Rev. 464, 482 (1983) ("In the high-volume grocery business . . . net income typically represents 0.5% of sales, so a 5% increase in price would represent a 1000% increase in profit . . . . Surely, a sizable number of competitors not now in the market would enter if profits were running at that exorbitant level. Just as surely, the managers of any recently merged grocery firm would know better than to try to raise prices by 5% across the board.").

will tend to reflect long-run impacts, are less precisely estimated but imply that changes in ownership structure affect prices by a similar amount. The evidence from the comparison of entry events across ownership types (Exhibit 8) provides further confirmation of effects in [redacted]

103. What does this entry evidence tell us about the hypothetical monopolist test? Since we know that Whole Foods plans to close the Wild Oats stores in [redacted] overlapping markets where they now compete, we can assume that closing the Wild Oats stores in these markets must be profit maximizing. If prices depend only on the number of competitors and not their identities, then we could infer that prices would return to their pre-entry level and the effect of sole ownership would simply be the reverse of the effect of entry.

104. Taken together, the econometric evidence from Exhibits 3-8 and the evidence from the factual record cited above support the hypothesis that Premium Natural and Organic Supermarkets represent a relevant product market as defined in the *1992 Horizontal Merger Guidelines* if one applies a price increase standard of one to two percent. This does not imply that other retailers do not compete with these stores. It simply means that a sole seller that controlled all of the stores in a particular market could raise price by one percent above the currently prevailing level without losing sufficient sales to retailers outside of this market to make the price increase unprofitable.

B. Geographic Market Definition

105. According to the *Horizontal Merger Guidelines*, the geographic market is defined by the same hypothetical monopolist test used to define the relevant product market except what is varied in this case is the

geographic scope of products sold rather than the type of products included. Fundamentally, the limits of the geographic market are determined by the willingness of individuals to purchase from sellers outside the geographic boundary.

106. Since people shop for groceries frequently and as a part of their regular routine they tend to purchase groceries from retailers in a relatively small geographic region. Evidence from an analysis prepared for Whole Foods suggests a distance representing 16 minutes drive time as the boundary of where individuals shop.[56]

107. As a practical matter, the exact distance chosen does not matter much for my analysis. In the vast majority of cases where Whole Foods and Wild Oats compete in the same broad area they are in fact located quite near each other (see Exhibit 1). The distribution of stores reflects the process by which Whole Foods has entered these markets—choosing in most cases to locate very close to the existing Wild Oats stores. For purposes of my analysis I define 18 geographic markets. The list of markets and Premium Natural and Organic Supermarkets in those markets are shown in Exhibit 9.

108. For purposes of my analysis I have distinguished markets based on the presence or absence of Whole Foods and Wild Oats. For markets where both firms currently operate I further distinguish between markets based on whether Whole Foods plans to continue operating the existing Wild Oats store. [57] In principle, it might be necessary to divide markets still further based on the presence or absence of other competitors. However,

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[56] WFM-002-00002450 @ 7.

[57] I make this later distinction based on the categorization of stores provided in the Project Goldmine spreadsheet Project Goldmine Store Level Merger Model v76 – Non-Divest.xls.

there is only one overlap locale with another competitor within the relevant product market (New Seasons in Portland, OR).

C. Summary on Market Definition

109. The tools of economic analysis can be applied to a wide range of market definitions, and if done correctly will yield the same answers across those definitions. In economic analysis, the goal is to define markets in a way that brings transparency and simplicity to the analysis. In the case at hand, the data support the definition of a rather narrow antitrust market, Premium Natural and Organic Supermarkets, based on the procedures outlined in the *1992 Horizontal Merger Guidelines* using a one to two percent price increase standard.[58] It is important to keep in mind that in cases of competition among differentiated products, as we have here, market boundaries are not bright lines. Competition occurs on a continuum, wherein those "in the market" compete most directly. Other firms who lie outside the indicated market boundary nevertheless often provide substantial competitive constraints.

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[58] Federal Trade Commission Bureau of Economics Staff Study, "The Petroleum Industry: Mergers, Structural Change, and Antitrust Enforcement," (August 2004) available at http://www.ftc.gov/os/2004/08/040813mergersinpetrolberpt.pdf at 22, n. 13 ("The FTC has staff frequently used a one-cent-per-gallon price increase in defining relevant markets for petroleum mergers." at 22; "[A] one-cent-per-gallon price increase is significant in this industry, much of which is characterized by large volumes and thin margins." at n. 13.); Federal Trade Commission v. The Kroger Co., et al., Plaintiff's Memorandum of Points and Authorities in Support of Motion for Preliminary Injunction, Civil Action No: 3-00CV1196-R (N. Dist. Tx, June 2000 available at http://www.ftc.gov/os/2000/06/krogerbrief.pdf ("Given that the supermarkets in the affected markets have combined annual sales of over $2 billion, even a one percent price increase at these stores would cost consumers an extra $20 million per year in their grocery bills." at 1; "Moreover, there is a large incentive to coordinate behavior, because even a small increase in prices would be highly profitable. For example, a 1% price increase may double a supermarket's net profits. In addition to coordinating on price, firms also could coordinate on a number of other dimensions of competition, such as level of promotional activity, services, and hours of operation." at 20).

110. My conclusions are based primarily on the statistical analysis of the available data and evidence taken from the factual record. Since my analysis placed no prior restrictions on the extent to which various firms could compete with one another, my results and conclusions regarding the price and non-price effects of the acquisition would stand even if a broader or narrower market definition were used. The effects predicted are based directly on the estimated degrees of substitution, estimated price and sales impacts, and the conditions of supply. These do not vary with the product market definition adopted – they simply get relabeled.

111. Given that the results of my economic analysis do not depend on the market definition, a natural question might be why market definition matters at all? From my perspective there are three important ways in which it matters and why premium natural and organic supermarkets is the relevant market for analyzing the effects of this acquisition from an antitrust perspective.

112. First, going though the hypothetical monopolist test is important for establishing that there is a potential for antitrust harm from the proposed acquisition. To an economist, antitrust injury is harm that occurs at the level of a market, where price and non-price factors are affected for a broad enough group of consumers to constitute market level rather than individual level effects. Application of the SSNIP test in this case establishes the potential for price harm to consumers who currently shop at premium natural and organic supermarkets through a reduction in competition among firms that sell those products. The SSNIP test implies price harm in this case could be at [redacted].

113. Second, the market definition of Premium Natural and Organic Supermarkets accurately delineates the group of consumers affected by this transaction. While there is competition between many firms in the

broader economic market, the anticompetitive effects will be concentrated in this narrower segment of that broader set of differentiated products. It is consumers of premium natural and organic supermarkets that will suffer the loss from higher prices, reduced competition in other dimensions, and reduced choice.

114. Finally, the market definition of Premium Natural and Organic Supermarkets provides a useful lens for viewing the proposed transaction. It focuses attention on the key issues. First, would the reduction in competition resulting from the acquisition cause prices to increase? Second, would entry or repositioning into that segment of the broader differentiated products space be sufficient to prevent the merged firms from raising prices to that segment of customers. These questions can usefully be addressed using this market definition, and the process outlined in the *1992 Horizontal Merger Guidelines*.

D. Entry

115. The *Guidelines* definition of the relevant product market only asks whether substitution by buyers is sufficient to prevent a sole seller from having the ability to profitably raise price by a small but significant amount. But the power to raise price is constrained by more than buyer substitution. The ability of other firms to enter the market or reposition their products also limits the ability of sellers to increase price. To the extent that such repositioning can occur quickly and at a sufficient scale, firms can be prevented from increasing price even when buyer substitution alone is insufficient to do so. In order to address the ability of firms to raise price we must examine the conditions of entry.

116. In the case at hand there are four important types of entry that could occur. First, a firm that currently competes in the Premium Natural and

Organic Supermarket business in one geographic market could enter a geographic market where they currently do not compete. There are many examples of this type of entry in the record. In fact, I used the effects of this type of entry to help define the product and geographic boundaries of the market. Second, retailers that currently are outside the relevant market but who compete in the broader grocery business could enter the market with new stores (perhaps under a related or new brand name) and provide customers with a mix of products, services and other attributes that place those stores within the relevant market. Third, these retailers could reposition their existing stores so as to compete more directly with the stores currently in the market, but without actually entering the market as defined. While this latter form would not technically qualify as entry, I analyze it here because it could, in principle, have the effect of making a price increase unprofitable. Fourth, there is the possibility of entirely new entry by firms that are not currently competing in any related market.

Expansion by Existing Firms into Other Markets

117. The evidentiary record demonstrates the ability of at least one existing premium natural and organic supermarket to move into new geographic markets: Whole Foods. Whole Foods alone was able to open 41 new stores in just the past 5 years. As shown in Exhibit 1, many of these stores came into markets where Wild Oats was already present. Planning documents from Wild Oats and Whole Foods also show that both firms planned significant entry in the near future. Clearly, potential entry by either of the two parties to this transaction is something that could help constrain pricing. The key question for the current analysis is whether other existing participants, essentially Earth Fare or New Seasons would have the ability to do the same.

Earth Fare

118. Earth Fare has in fact entered against Whole Foods in [redacted] albeit unsuccessfully. Evidence from the record suggests that this entry has been successful in generating pro-competitive price and quality responses from Whole Foods but has been relatively unsuccessful from the point of view of Earth Fare. The following excerpts from the quarterly reports that A.C. Gallo made to the Whole Foods Board of Directors is an informative chronology of these events:

> "In June we will have an [redacted] market opening up about a half-mile from our [redacted] store and expect some fierce competition. We have been remodeling the [redacted] store, getting it ready to show [redacted] that it is a bad idea to open up too close to us." (Q2-FY05 @ p. C-4)
>
> "[redacted] opened a store in [redacted] less than a mile from our store at the beginning of [redacted]. We responded by aggressively matching all of their prices and specials and by doing a strong special program of our own." (Q3- FY05 @ p. C-5)
>
> "We have heard from management at [redacted] that they were surprised by our aggressive pricing and that their coming to the [redacted] was probably a mistake." (Q4, FY2005 @ p. 4)
>
> "We are crushing [redacted]. We hear that sales at their [redacted] store are down to around [redacted] per week and have been steadily dropping. Our opening in [redacted] dropped their store from about [redacted]. We cannot see how this company is viable going forward, and I expect the investors are going to take some drastic action soon. Three of their board members live in Greenville, and so I am sure they are questioning management at this point as to their strategy." (Q2, FY06 @ p. C-5)
>
> "We are competing very well against [redacted] and are not sure how they are keeping their stores [redacted] and [redacted] open." (Q3, FY06 @ p. C-4)[59]

[59] See: WFM-123-00016521, WFM-128-00041877, WFM-128-00041879, WFM-123-00016630, WFM-123-00016697, WFM-128-00042101, WFM-128-00034534, WFM-123-00016954, WFM-128-00042158, WFM-128-00005355, WFM-123-00017250, WFM-123-00017251, WFM-128-00005380, WFM-109-00032941, WFM-128-00005472, WFM-130-

119. Ultimately Earth Fare closed it's [redacted] store in January 2007. Given its experience with its [redacted] store, whether Earth Fare would be willing to enter against Whole Foods in the future is an open question.

New Seasons

120. Based on the statement made by New Seasons founder Brian Rohter, New Seasons does not plan to expand beyond the Portland Oregon area.[60]

Entry of Firms Currently in Related Markets

121. There are several types of firms that in principle might be able to enter and compete in the relevant market. These include conventional supermarkets, premium supermarkets and other specialty stores such as Trader Joe's.

Conventional Supermarkets

122. The potential for conventional supermarkets to enter the market for Premium Natural and Organic Supermarkets has some support from both historical experience and first hand accounts of the industry. Safeway Stores Inc., a major national supermarket chain, has attempted to reposition closer to the relevant product market by opening 76 new Lifestyle format stores between 2003 and 2007 and converting over 700 of its stores in the U.S. and Canada to the Lifestyle format.

123. The lack of a significant competitive impact of the Lifestyle stores is reflected in Mackey's Q1-FY07 report to the Board:

> "Safeway is continuing to roll out their "Lifestyle Stores". I don't believe these stores have had much real impact on us, although they've

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00002286, WFM-128-00005995, WFM-127-00000958, WFM-127-00001457, WFM-127-00001529, WFM-127-00002507, WFM-051-00003641, WFM-051-00003642

[60] http://www.nytimes.com/2006/01/04/dining/04well.html?ex=1294030800&en=c5f24b32d7d43337&ei=5088&partner=rssnyt&emc=rss)

increased Safeway's comps a couple of hundred basis points (not that much when you consider the immense amount of capital invested)."

124. In his Q2-FY06 report to the Board (written three months after the opening of the [redacted], Robb (co-President of Whole Foods) said:

> "The [redacted] opening initially hit Pearl by about [redacted] and pushed us into [redacted], but as of this writing, the store has reduced that to a less than [redacted] impact."[61]

125. The experience with Kroger's "Signature" and "Fresh Fare" stores appears similar.[62]

126. Thus the record indicates that, at least to date, conventional supermarkets have not been successful at competing effectively in the relevant market. Based on the available evidence we cannot say with confidence that conventional supermarkets would be able to prevent any anti-competitive effects generated by the acquisition of Whole Foods and Wild Oats.

Trader Joe's

127. The results in Exhibits 3 and 4 showed the impact that the entry of Trader Joe's has had on sales, and margins of both Wild Oats and Whole Foods. As can be seen in the Exhibit, the entry of Trader Joe's existing store format has a [redacted] on sales and [redacted] on margins at either Whole Foods or Wild Oats. This is not surprising given the important differences in the formats of Trader Joe's on the one hand and Wild Oats and Whole Foods on the other. For example, perishables account for about [redacted] of Trader Joe's sales but roughly 70 percent of the sales at Whole Foods and Wild Oats. Similarly, Trader Joe's does not

[61] Whole Foods Q2-FY06 report @ p. C-23

[62] 4/21/05 559 pm Rahodeb Posting, Yahoo! Finance Message Board

carry many of the items sold by the other stores. In order to enter and effectively constrain prices Trader Joe's would need to change the format of its stores. Since this falls under the general concept of repositioning I address this under repositioning below.

Gourmet Supermarkets

128. Premium supermarkets represent another potential platform for entry into the relevant market. One potential entrant form this space is Wegman's. However, the format used by Wegman's makes rapid expansion difficult. In particular, Wegman's has built its business model on providing exceptional services to its customers and high quality products. In order for entry to effectively leverage this reputation it would seem essential to carry that expertise over to any new venture. Providing such a high level of service means that adding capacity requires significant effort in training new management and employees. Evidence from Whole Foods documents confirms this:

> The reason Wegman's has continued to earn that reputation, said company president Colleen Wegman, is it remains focused on what has made it successful and not simply opening new stores. ""We're not afraid of growth,"" she said. ""The reason we have grown slowly is that we want to make sure our people are fully prepared and trained to deliver on our model of incredible service."" Ms. Wegman expects the company to continue opening two or three new stores a year as it has done in the past.
>
> Neil Stern, a partner at McMillan/Doolittle, said Wegman's has a ""fantastic strategy"" for growth that it is able to follow because it is a privately-held company. It might not be able to do so if it had to meet the expectations of shareholders and analysts....""Their format is not only capital-intensive, it's people-intensive,"" said Mr. Stern. ""Literally, they can't train people fast enough. Even if they have access to capital, from a human resources standpoint, they can't grow any faster."" considerable commentary on difficulty that conventional supermarkets have in competing directly in the relevant market.[63]

[63] WFM-001-00004054

129. While super-competitive pricing might cause Wegman's to change its business model somewhat or accelerate its timing, there is no indication that they would be willing or able to provide a meaningful restraint on the ability of the combined firm to raise prices in overlap markets.

Repositioning of Existing Firms

130. A third possibility for price restraint is that existing retailers could reposition themselves so as to provide increased competition for existing premium natural and organic supermarkets. In principle, such repositioning could increase the competition form outside the relevant market enough to compensate for the loss of pricing restraint provided from within the market. A classic result of demand theory is that the demand for a product within a segment can be expressed as $S\ \sigma_m + (1\text{-}S)\ \sigma_p$ where is the firm's market share, σ_m is the degree of substitution between products in the market and products outside the market and σ_p is the degree of substitution of products within the market. A reduction in competition from within the market due to a rise in S or a fall in σ_p can in principle be compensated by a rise in σ_m. In the context here, the rise in σ_m could come about by other firm's repositioning their products so as to compete more closely with premium natural and organic supermarkets even if that repositioning did not move them close enough to be in the currently defined market.[64]

131. In principle many retailers could reposition their products in response to an increase in prices in the relevant market. One common issue to all of these potential entrants is that repositioning is not costless. Moving one's attribute mix in one direction will typically result in a less suitable fit with one's current customer base. To the extent that a company's current

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[64] In principle, the repositioning could be sufficient to change the market definition though this may not be necessary to offset the loss in competition.

position came about through costly investments in reputation and other assets, such repositioning will like cause the firm to forgo economic rents on those investments. While these firms may have some advantages that make their entry easier than the entry of other firms de-novo they also have these additional costs.

Conventional Supermarkets

132. Many conventional supermarkets have started to carry natural and organic products within their traditional store formats. However, the documentary evidence points out that this repositioning is costly. Conventional stores are caught in a sort of "Catch 22" situation: if conventional supermarkets offer a lot of organic items, they do not sell enough with their current customer base, and many of the products spoil, reducing margins. But if conventional supermarkets only offer a few organic items, they cannot add to their customer base. This is reflected in the testimony of Wild Oats' Odak:

> "[T]he issue is that until you have a predictable demand or takeaway at the store, you don't know how much to buy. If you buy too much and you don't sell it because you're trying to get in the market, you shrink it out and you lose money. If you buy too little, the consumer comes in your store and says you're not in the business... of organic and I'll go buy it someplace else.[65]

Trader Joe's

133. Trader Joe's has a strong business model. They currently have over 280 stores. The current format for Trader Joe's uses a smaller format and a narrower range of food items than either Whole Foods or Wild Oats. In particular, a typical new Trader Joe's store is roughly 11,000 square feet

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[65] Investigational Hearing of Odak, pp. 77-78.

while recently built Whole Foods stores are typically larger than 40,000 square feet. In addition, while Whole Foods and Wild Oats focus on perishables (accounting for roughly 70 percent of their sales), Trader Joe's places much less emphasis on perishables (roughly [redacted] percent of sales).

134. This difference can also be seen in the business decisions of Whole Foods. Documents from Whole Foods records indicates that Whole Foods only price checks Trader Joe's on about [redacted] in each region, and only [redacted] on about [redacted] in each region.[66]

135. Trader Joe's also differs significantly from Whole Foods and Wild Oats in terms of other attributes. In particular, Trader Joe's focuses much more on discount private label products and does not cultivate an upscale image

136. Given that Trader Joe's differs significantly from both Whole Foods and Wild Oats in terms of product variety, product mix, store size, and image it would seem that Trader Joe's would need to reposition significantly in order to provide broad based price competition for Whole Foods and other premium natural and organic supermarkets. Even if such repositioning is possible it would require that Trader Joe's sacrifice its current successful format. There is no evidence that they would choose to do so in response to a small but significant increase in the prices charged by Whole Foods. This is particularly true given the fact that the largest price increases would likely come in areas where the stores overlap the least.

De-Novo Entry

137. As with any industry, there is always the possibility of *de-novo* entry. The key question is whether such entry would occur in a timely fashion

[66] WFM-GEN-00020217

and would be of a sufficient magnitude to make a small but significant price increase unprofitable.

138. The evidence in this case suggests that entry and growth have taken significant time. Even Whole Foods and Wild Oats achieved much of their growth through acquisitions, though Whole Foods has accomplished much of its recent growth by opening new stores. Even smaller successful participants such as New Seasons in Portland Oregon took many years to achieve their success. Certainly, *de-novo* entry has significant potential in the long run but since it involves creating a new brand that resonates with the customers of Whole Foods and Wild Oats, and opening a fleet of stores to enter the overlap markets, it would not occur in a timely manner. Whole Foods recognizes this fact, "Starting up a brand from scratch is very risky and expensive as Super Value (sic) is now discovering with Sunflower." (WFM-030-00017157).

Overall effect of Entry

139. Taken together there is a broad range of avenues through which entry might occur – movement of existing sellers into new markets, brand extension by existing supermarkets, repositioning by existing firms not currently in the market, and de-novo entry. No one of these avenues needs to do all of the work in disciplining a price increase. The question is whether, taken together, they can disciple any potential rise in price generated by the acquisition.

140. One important question is whether we can learn about the disciplining effect of entry from the price impact evidence discussed above. The evidence suggests that prices are higher in markets where Wild Oats does not compete with Whole Foods than in markets where the two firms compete head to head. The evidence also suggests that the entire difference is not transitory.

X. CONCLUSION

141. Statistical analyses of margin and pricing indicate that the entry of Whole Foods into a local market is associated with approximately a [redacted] percent fall in sales, [redacted] percent decrease in prices and a [redacted] percentage point decrease in margins at Wild Oats stores locate in the same geographic market. The volume effects are permanent while the price and margin effects decrease somewhat over time.

142. The [redacted] indicate that a large number of consumers view Whole Foods and Wild Oats as close substitutes. The effects of Whole Foods entry and Wild Oats entry on third parties are not nearly as dramatic. The [redacted] "diversions" found in my empirical analysis are confirmed in the documents that Whole Foods prepared to quantify the value of this proposed acquisition.

143. My statistical analyses of Whole Foods' margin data comparing cases where Whole Foods is located near one of its own stores versus being located near a Wild Oats store suggest that the presence of Wild Oats is associated with about a [redacted] in margins of Whole Foods. My empirical analysis indicates that Whole Foods and Wild Oats are each other's closest competitors.

144. A wide variety of documents and deposition testimony confirm the econometric evidence that the Whole Foods and Wild Oats are each other's closest competitors.

145. Anticompetitive effects, without any countervailing pro-competitive effects, will be realized on price and non-price dimensions (breath of choice, quality and service) in each of the markets where Whole Foods plans to simply close a competing Wild Oats store.

146. Anticompetitive effects will also be felt in the markets where Whole Foods plans to leave open a competing Wild Oats store but "reflag" it as a Whole Foods store. Current Wild Oats shoppers in these markets will lose their current preferred choice, and all consumers will lose the benefit of head–to-head price and non-price competition.

147. As a result, I conclude that this proposed acquisition poses the risk of substantial, non-transitory price increases and non price anti-competitive effects that will persist for at least 2 years, in the markets that I have studied.

148. The analysis I present dovetails nicely with the *1992 Horizontal Merger Guidelines*. The proposed acquisition will affect competition and harm consumers that currently purchase products from premium natural and organic supermarkets in the local markets where Whole Foods and Wild Oats currently compete head-to-head. Competition from other sources through entry and or repositioning is not likely to prevent such harm from persisting for a number of years.

149. My conclusion on the extent of consumer harm is not affected by the market definition chosen – the market definition chosen simply highlights the nature and extent of that harm.

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