GAO Staff Comments on the FTC Marathon Ashland Study[1]

"In chapter 5, we discussed previous studies on mergers affecting gasoline markets, including a recent study by FTC staff, sent to us on March 24, 2004.43 Here, we provide a more detailed assessment of the FTC study because the study examines one of the mergers that we studied; it is also, to our knowledge, the first public retrospective analysis of mergers in the petroleum industry done by FTC staff. In the study, FTC staff examined the economic effects of the Marathon-Ashland merger and found that this merger increased wholesale prices of reformulated gasoline in Louisville, Kentucky, by 3 to 5 cents per gallon during the period they analyzed—1998 and 1999. They argued, independent of their statistical analysis, that the increase was due to increased demand from St. Louis, Missouri, which switched to reformulated gasoline during the period of the study and not due to the merger. Furthermore, they found that retail prices at gasoline stations supplied by rack distributors did not increase, presumably due to competition from retailers of reformulated gasoline supplied directly by refiners and retailers of conventional gasoline that did not experience increases in their relative wholesale prices.

Although the increase in wholesale prices of reformulated gasoline found by the FTC is consistent with our findings, the study has shortcomings in several related areas, including sampling, econometric methodology, and interpretation of results. First, the FTC study uses prices in three selected control cities (Chicago, Houston, and Northern Virginia, which we believe includes Fairfax) to help separate the merger's effects from other demand and supply effects. We believe that all three cities fail to meet the essential requirement of a control unit—that the control cities and the city of interest are nearly identical, except for the Marathon-Ashland merger, in terms of demand and supply conditions of gasoline. For instance, the Marathon-Ashland merger affected the wholesale gasoline market in Fairfax, which would make Northern Virginia an inappropriate control city for this merger.44 Furthermore, other key mergers affected the control cities, making the control cities inappropriate. Specifically, the Shell-Texaco II

43See Taylor and Hosken (2004).

44From the OPIS rack database, both Ashland and Marathon were important participants in the wholesale gasoline market in Chicago from 1994 until 1997, when Ashland left. The merger also affected the markets in Norfolk and Richmond, both in Virginia.

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[1] GAO Report at 130-1.

(Motiva) merger in July 1998 affected Fairfax and Houston, and the BPAmoco merger in December 1998 affected Fairfax. Also, the seasonal demand factors may be different between Louisville and the control cities.

Second, the FTC study does not take into account the potential effects of the BP-Amoco merger, which occurred in December 1998 and affected the wholesale gasoline market in Louisville. This makes it difficult to separate the effects of the Marathon-Ashland merger from the effects of the BPAmoco merger in 1999, severely limiting the interpretation of the results.

Third, FTC argued that increased demand from St. Louis was solely responsible for the increased wholesale prices. However, the FTC study did not explicitly include demand from St. Louis and so it is not evident how much of the increase in prices was due to the Marathon-Ashland merger and how much was due to the increased demand from St. Louis. Interpreting the price increase in wholesale prices as an artifact of St. Louis' entry into the reformulated gasoline market without such evidence confounds FTC's interpretation of the effects of the merger. Furthermore, even if the increased demand from St. Louis was potentially responsible for the price increase found in FTC's study in 1999, FTC's study fails to explain the price increase in 1998, prior to the switch to reformulated gasoline in St. Louis in 1999. Finally, using only one market (city) unnecessarily reduces the scope of findings for the impact of the merger."

FTC Staff Responses to GAO Staff Comments on the Marathon Ashland Study

As our study discusses, there are strengths and weakness to each of the three control cities. According to the OPIS data, Ashland ceased to post a price for unbranded conventional gasoline in Chicago in May 1996, over a year and a half before the joint venture. The basis of the claim that Ashland and Marathon were both important suppliers to Chicago is thus unclear Marathon and Ashland both posted a price for unbranded gasoline in Fairfax, Virginia along with nine other firms prior to the transaction. In only one state, Illinois, of the three states in question, (Illinois, Virginia, and Texas) was either Marathon or Ashland among the top 4 wholesale suppliers pre joint venture. Marathon was one of the top four suppliers in Illinois prior to the joint venture.

There are additional mergers that may or may not have affected the control cities. This is one reason why we used multiple control cities. We also picked control cities where many firms were competing. There were similar patterns of relative prices for all three control cities. We included month dummies to allow the seasonality to differ across the control cities.

The BP-Amoco merger may have affected wholesale RFG prices in Louisville in 1999 but we found no change in 1999 for rack prices of conventional or retail prices for either type of gasoline. We used 1998 and 1999 dummies to show the differing year effects. It is important to note that while BP was among the top suppliers to Kentucky pre-merger, Amoco was not. In addition, while wholesale concentration in Kentucky increased over 700 points as a result of the Marathon-Ashland joint venture, it decreased 60 points for the year after BP-Amoco. The criticism that multiple events may lead to difficulty in interpretation is also applicable to the results in the GAO Report. Since there is no difference in the relative retail price of gasoline in Louisville in 1998 or 1999, the fact that there was an additional merger does not seem relevant.

There is no empirical evidence that St. Louis is solely responsible for the increased rack price of reformulated gasoline in Louisville 15 months after the Marathon-Ashland transaction and three months after BP-Amoco. But the price increase in Louisville coincides with this event and there was no increase in the rack price of conventional gasoline in Louisville at the same time. We could have added a variable for the period after St. Louis shifted to reformulated gasoline. An increase in rack prices in 1998 in Louisville was not robust to the choice of control city.

The most important results of the MAP study is there was no increase in the relative retail price of gasoline after the joint venture either for conventional or reformulated gasoline. The results also suggested that rack prices may increase without affecting retail prices.