Luco and Marshall's "Vertical Integration with Multi-Product Firms: When Eliminating Double Marginalization May Hurt Consumers"

Discussion by Andrew Sweeting
(University of Maryland and NBER)

Summary

LM examine the retail pricing of Coca-Cola (C), PepsiCo (P) and Dr. Pepper (DP) carbonated beverages around a set of vertical mergers where C and P vertically integrated with their largest bottlers

Geographic variation makes this a nice setting

- some counties not directly affected at all
- some counties affected by C or P vertically integrating with bottlers of only their own products
- some counties affected by C or P vertically integrating with bottlers of both their own products and those of DP

Main Results

1. vertical integration **lowers retail prices of own products**, consistent with productive efficiencies and/or elimination of double marginalization
2. vertical integration **increases retail prices of DP products** that are distributed under license – consistent with possibilities in Edgeworth/Salinger
3. the **% increase is greater in (2) than the % reduction in (1)**

Lots to Like in the Paper …

- qualitative theory is simple and therefore plausible for many real-world settings
- beverages are high-margin products where small % margin changes could have large effects on prices
- empirical analysis is transparent, magnitudes of DP price effects are quite consistent across C and P and across several specifications
- the authors draw a clear policy conclusion: on average prices go up after these mergers, and therefore antitrust authorities should be careful about approving vertical mergers even when there is no significant risk of foreclosure

Some more context useful ….

The relationships, both before and after the mergers, may be more interesting than the simple model suggests ….

Example 1

- Before 2009, C and P partially owned CCE and PBG, so changes may underestimate the full effects

Example 2

- DP signs new 20 year bottling license agreements at the time of the mergers, receiving substantial cash payments
- agreements include "performance targets" for C and P and "repatriation" of DP volume; non-linear incentives?
- what do we see in areas where DP is vertically integrated, or for DP products not distributed by C or P in these areas?

Some more context useful ….

Example 3

- a lot of branding and promotion is national, or may involve allocation of a national budget
- may cause effects even in areas where there is no structural change in market structure

Example 4

- paper is focused on wholesale prices between bottlers and retailers; and, to a lesser extent, wholesale prices between manufacturers and bottlers
- we observe retail prices, but retailer decision making is not in the picture
- may be appropriate for direct delivery products, but still relevant for considering correlation of the residuals

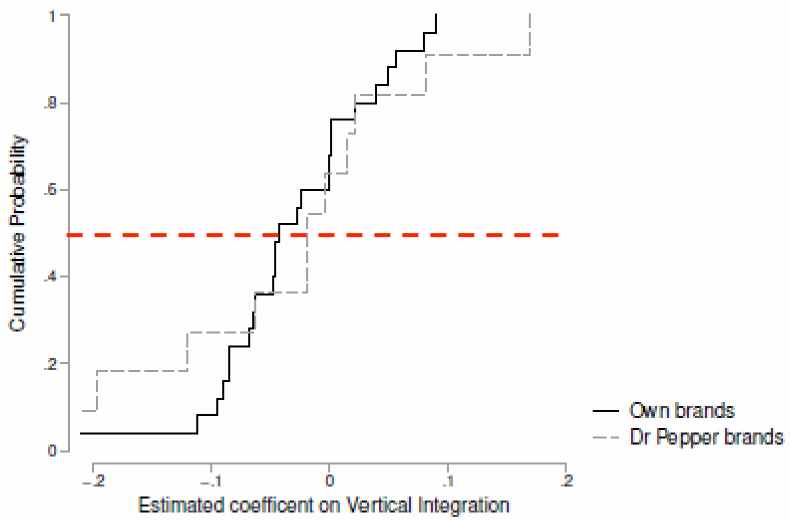
Suggestions for empirical analysis

1. more focus on quantities …

a) not all price changes are equal in terms of welfare (products and time) ...

b) what happens to average prices paid before and after?

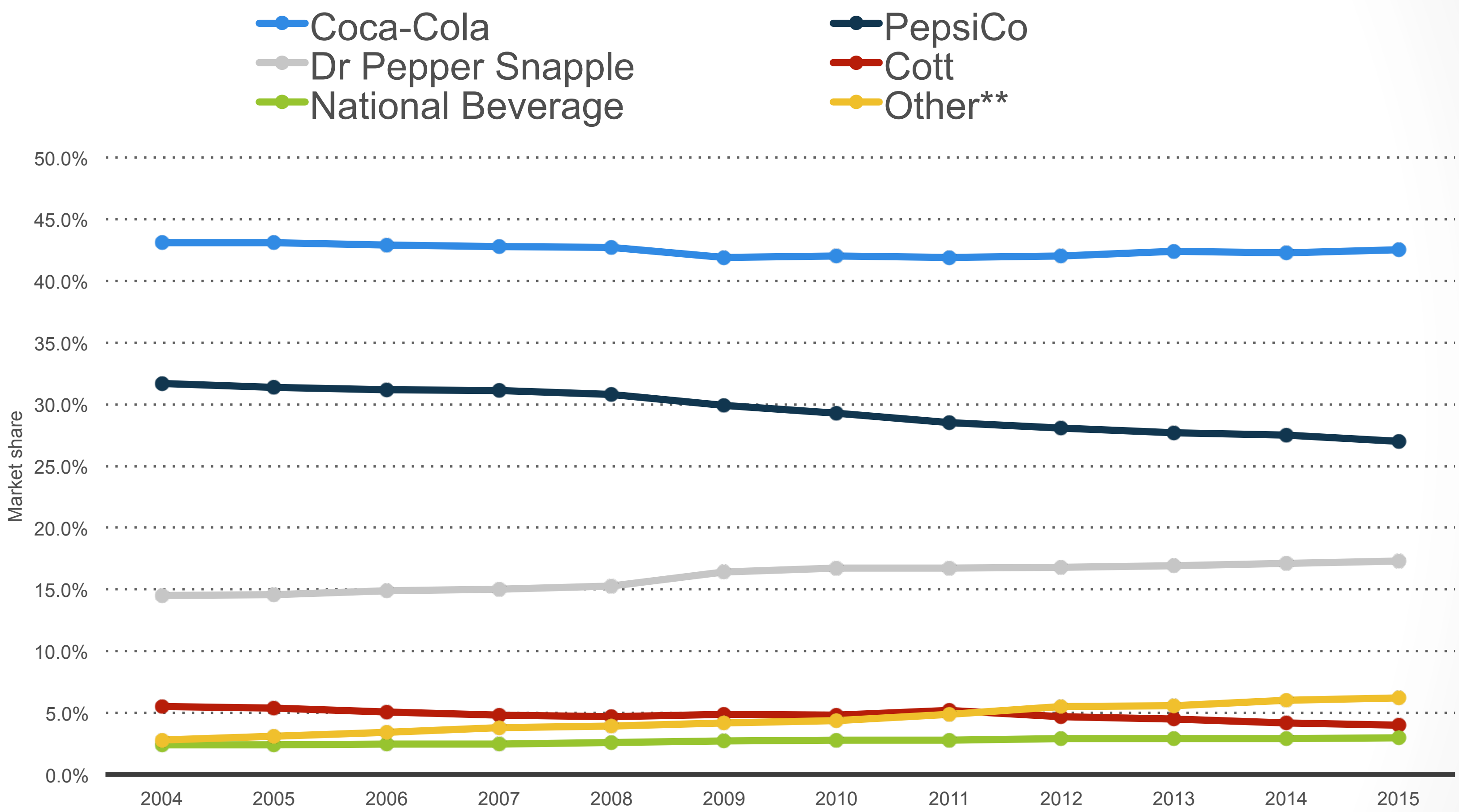
c) it is not clear that the current quantity estimates support the simple version of the story



A) Empirical CDF of estimated product-level quantity effects of vertical integration (OLS regressions)

Market share of leading CSD companies in the U.S. 2004-2015

Market share of leading carbonated soft drink (CSD) companies in the United States from 2004 to 2015*



Note: United States; 2004 to 2015

Further information regarding this statistic can be found on page 8.

Source: Beverage Digest ID 225464

Suggestions for empirical analysis

2. examine the distribution of prices more closely …

- most stores charge identical shelf prices for same package size of Coke, Pepsi and DP unless they are on sale
- but we observe an `average revenue' measure which is a noisy measure of the shelf price and the discounted price
- are there changes in the mix of promotional activities? what are the results without feature and display controls? a change in the mix of store-weeks around the 5% "sale" threshold? DP sales are more frequent even though prices increase.
- is there any part of the price distribution that we cannot fit without the ES story?

3. examine the distribution of products sold …

- changes to the mix of package sizes sold?

Suggestions for empirical analysis

4. a structural exercise might add insights here…

- are magnitudes consistent with the suggested model and plausible/estimated substitution patterns across products?
- what is the welfare effect?
- the ES effect is driven by cross-product substitution effects … do we see the effects happening in the right places?
- are there other brands that might be affected more than DP?

Summary

- this is a very carefully executed and clear paper, with important implications for thinking about vertical mergers
  - clear foreclosure cases are rare
  - it is plausible that VI may create, as well as solve, distortions without foreclosure
- the authors have a lot of scope to probe deeper into these issues, which have received little previous attention, in future work