GE-Electrolux merger analysis

Michael D. Whinston

November 23, 2015

Public Version

~~Under Seal~~

U.S. v. AB Electrolux
1 : 15-cv-01039-EGS
PX02015

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Maytag/Whirlpool merger

- **Merger retrospectives:** Can be useful if
  - Comparable to current merger
  - There is a convincing control group that shows *what would have happened if there had been no merger*
    - (AKA a "natural experiment")
    - *Requires an absence of confounding effects*
  - Does not suffer from other empirical problems

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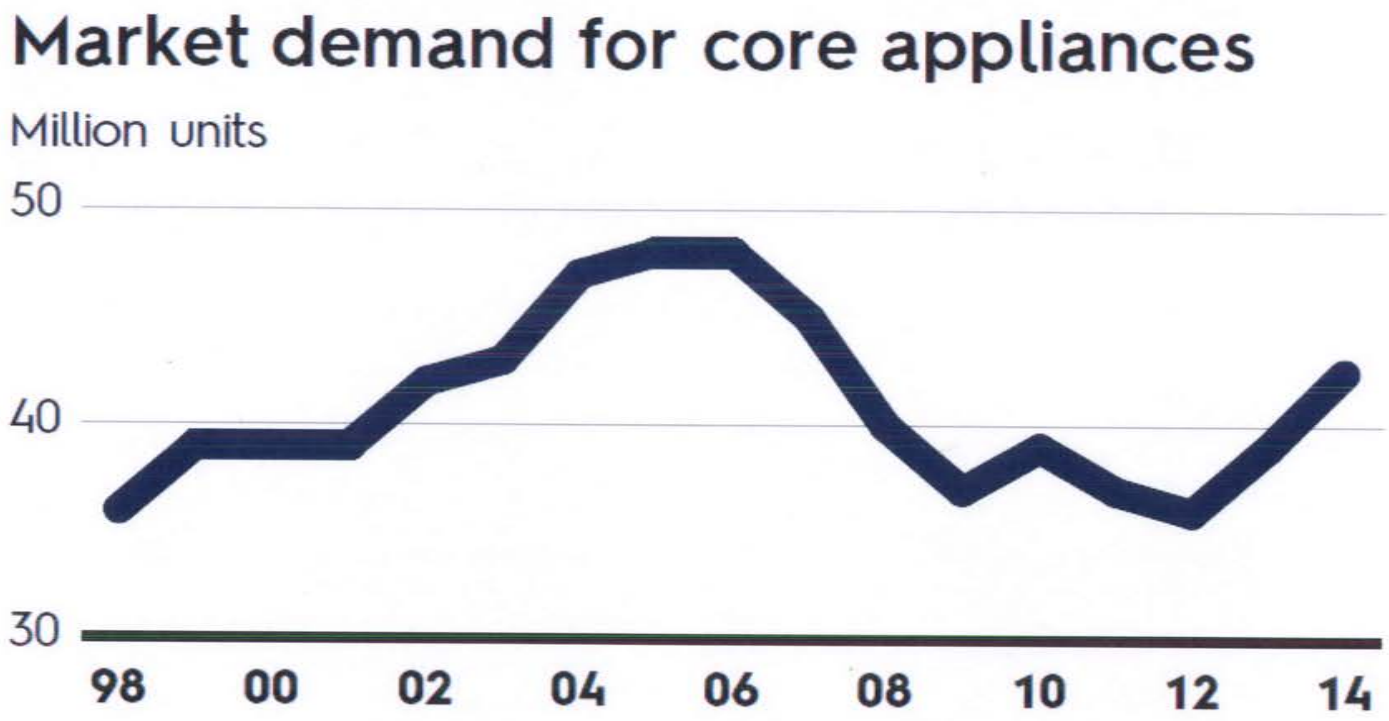
Whirlpool-Maytag merger cannot be used as a "natural experiment"

Electrolux Annual Report 2014



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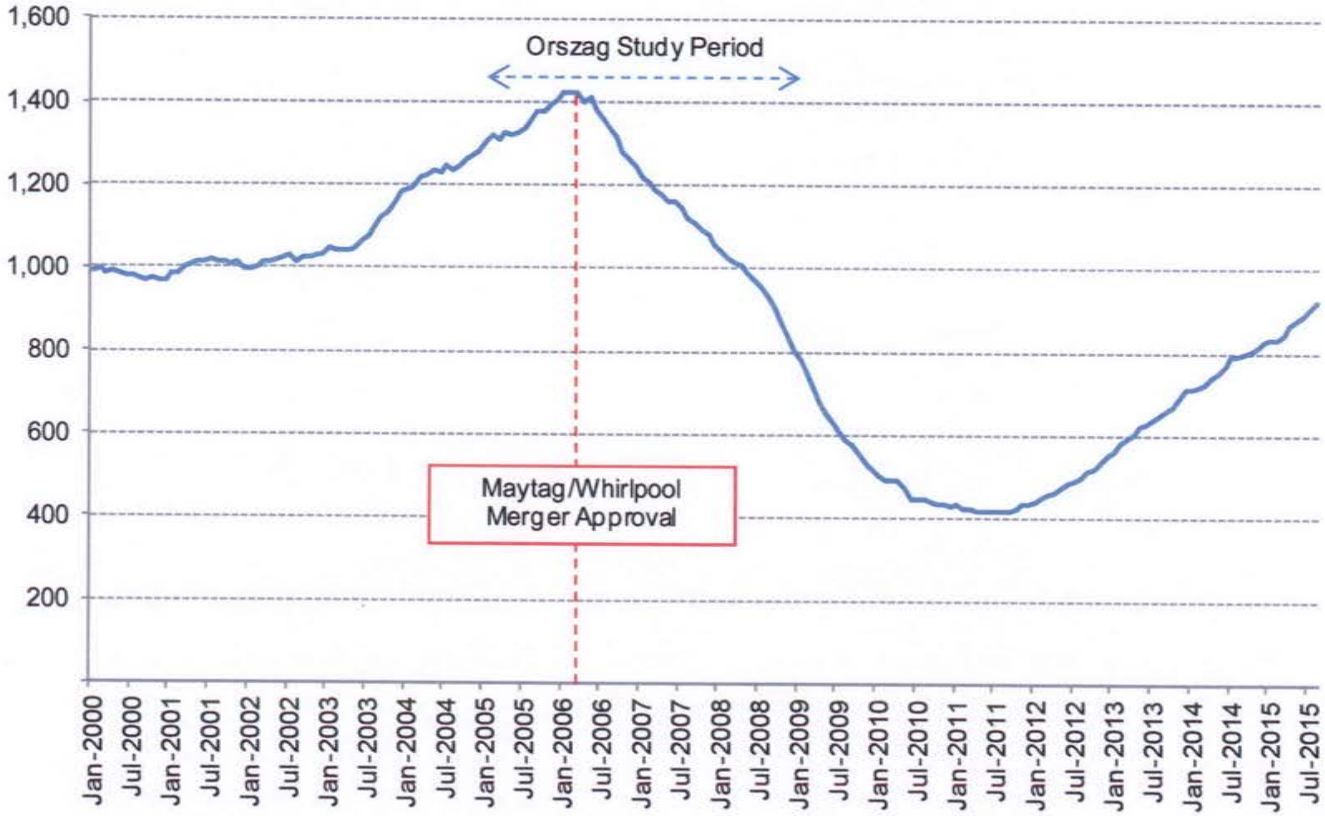
Whirlpool-Maytag merger cannot be used as a "natural experiment"

New residential construction - housing units under construction: United States seasonally adjusted units (in thousands)



PX02003 (Rebuttal expert report of Michael D. Whinston, October 20, 2015), Fig. 44

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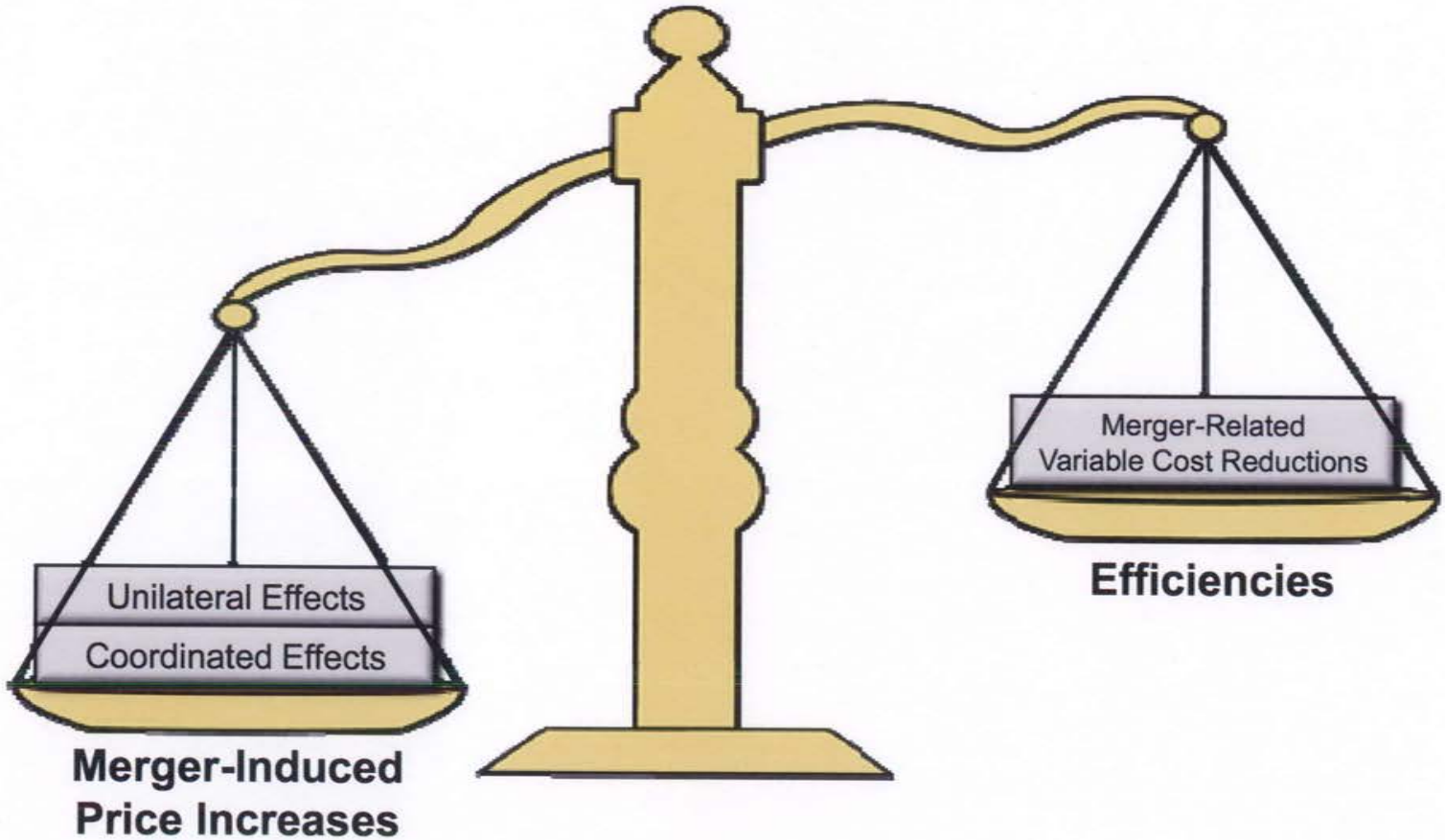
Merger analysis



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This merger

- **This merger creates a very significant likelihood of price increases due to reduced competition**
  - Large increase in concentration
  - Large degree of "internalization," leading to significant unilateral incentives to raise prices
  - Increased risk of coordinated price increases, especially in the contract channel
  - New entry or "repositioning" are unlikely to counteract these effects
  - Claimed cost-savings are much too small to offset these effects

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Agenda

- **Important features of the major cooking appliance industry**
- Market definition
- Competitive effects
- Other factors are unlikely to prevent this harm
- Recap of conclusions

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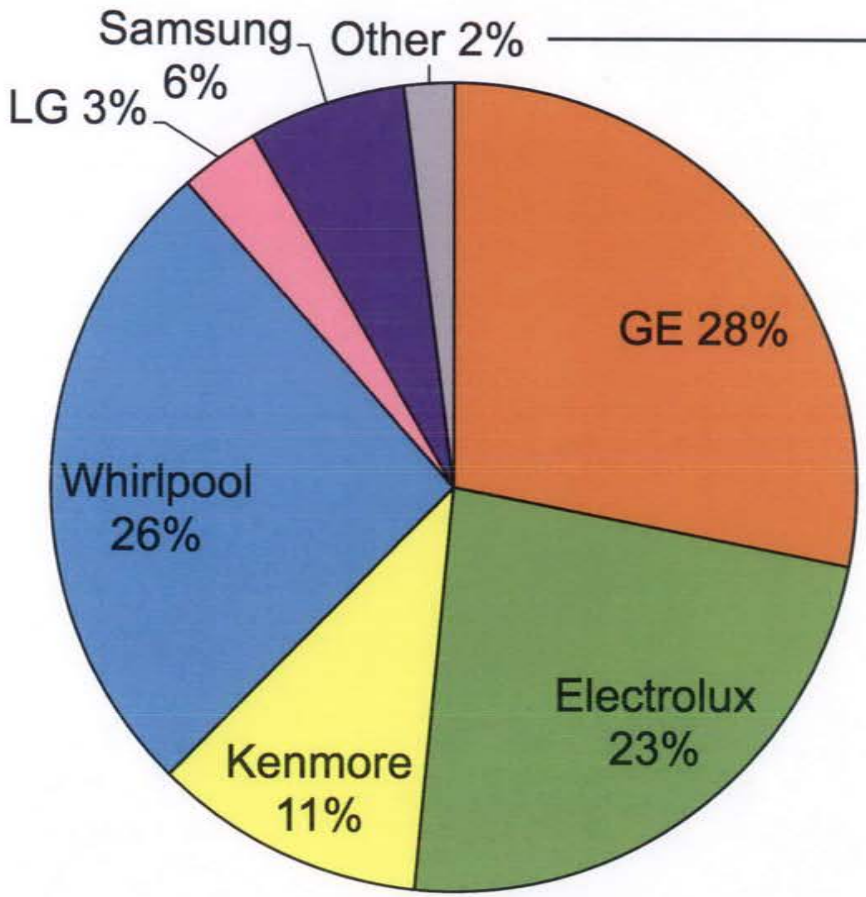
Shares: overall markets

Pre-merger 2014 unit shares measures for range sales



Other includes:
- Bosch 0.6%
- Crosley 0.4%
- Dacor 0.1%
- Danby 0.2%
- Fisher & Paykel 0.1%
- Haier 0.0%
- Midea 0.0%
- Miele 0.0%
- Sub-Zero 0.4%
- Viking 0.2%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 31

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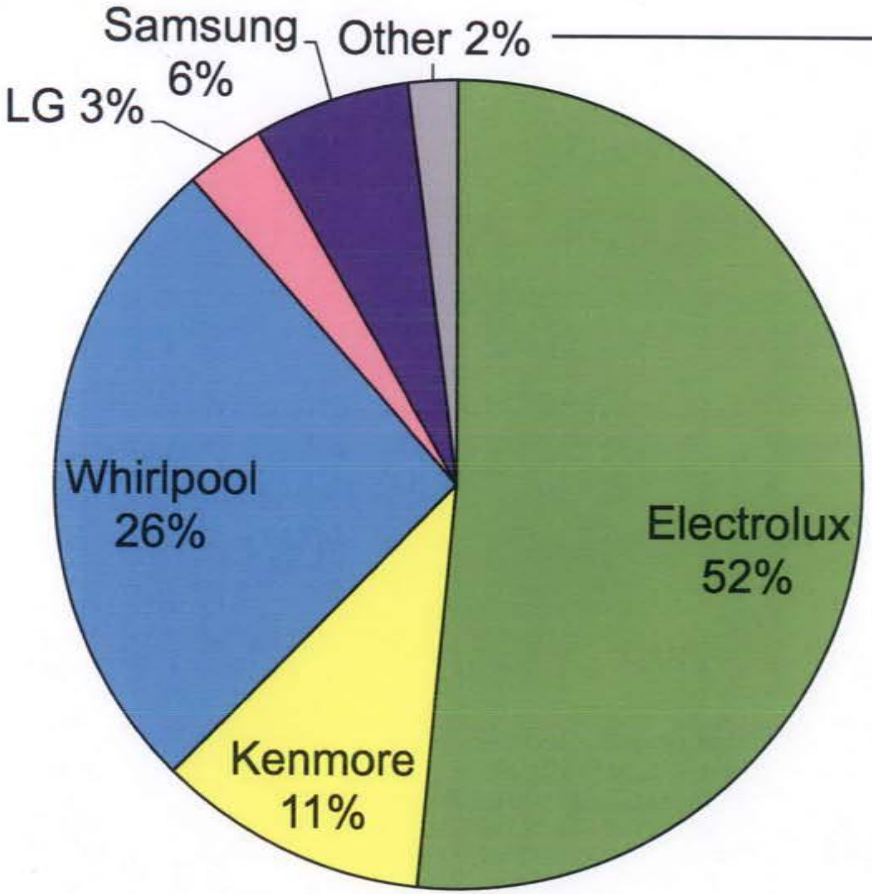
Shares: overall markets

Post-merger 2014 unit shares for range sales



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PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 31

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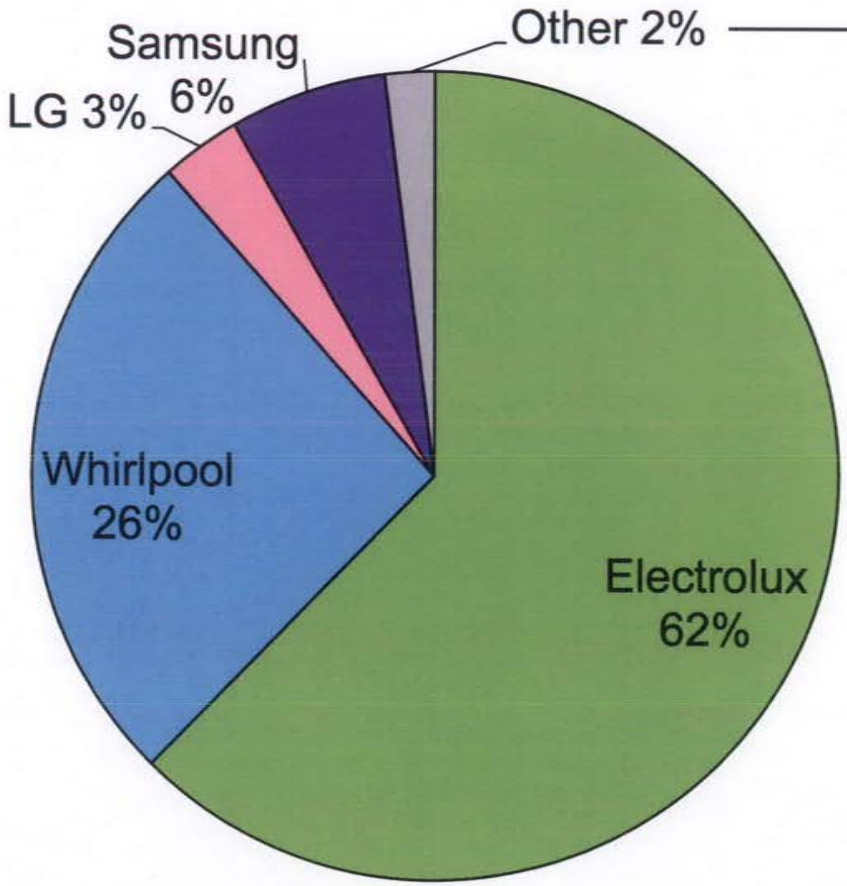
Shares: overall markets

Post-merger 2014 unit shares for range sales assigning Kenmore sales to Electrolux



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PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 33

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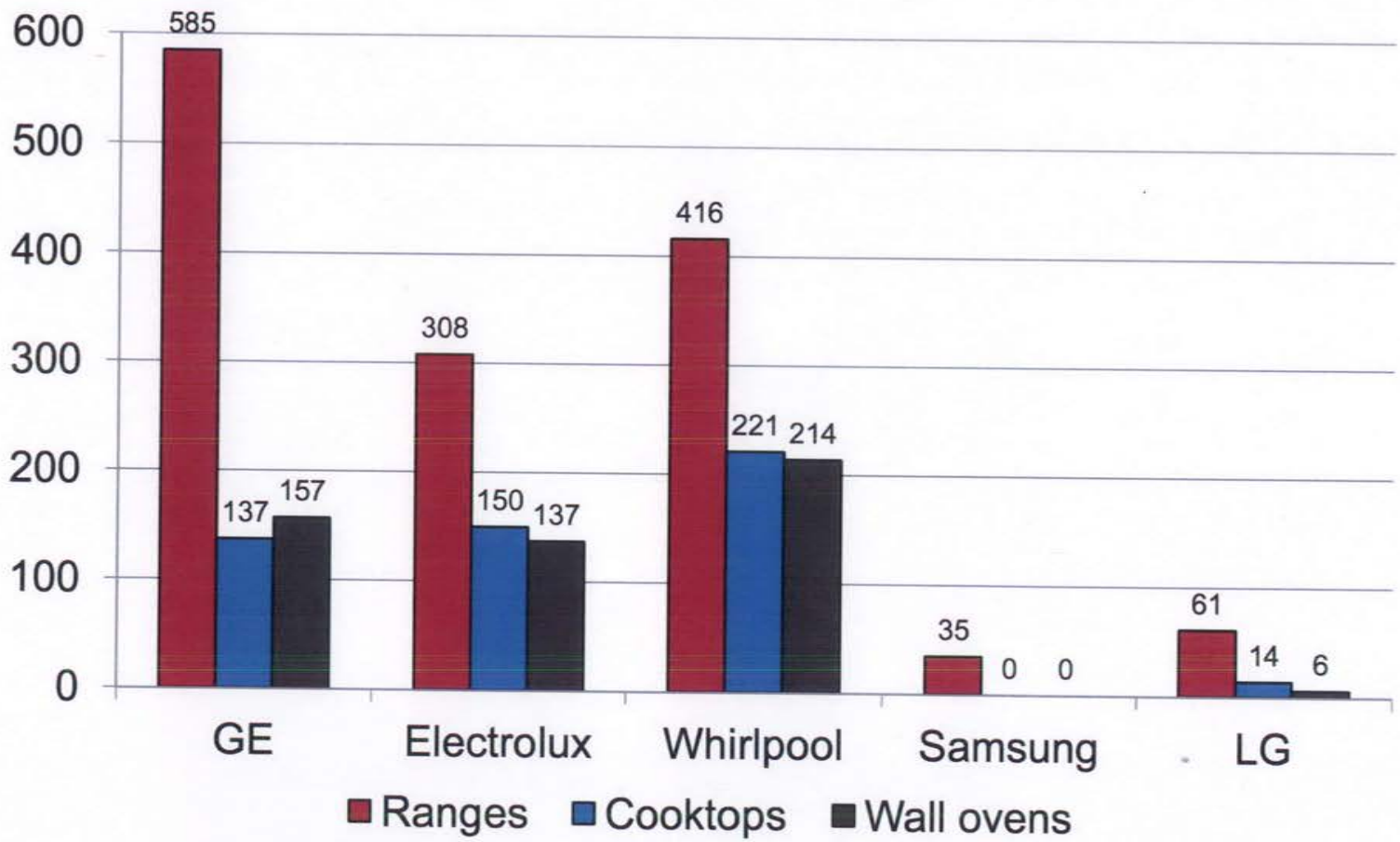
Overview: important features of the major cooking appliance industry

Number of unique major cooking appliance SKUs sold in 2014 (excluding sales to Kenmore)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 2

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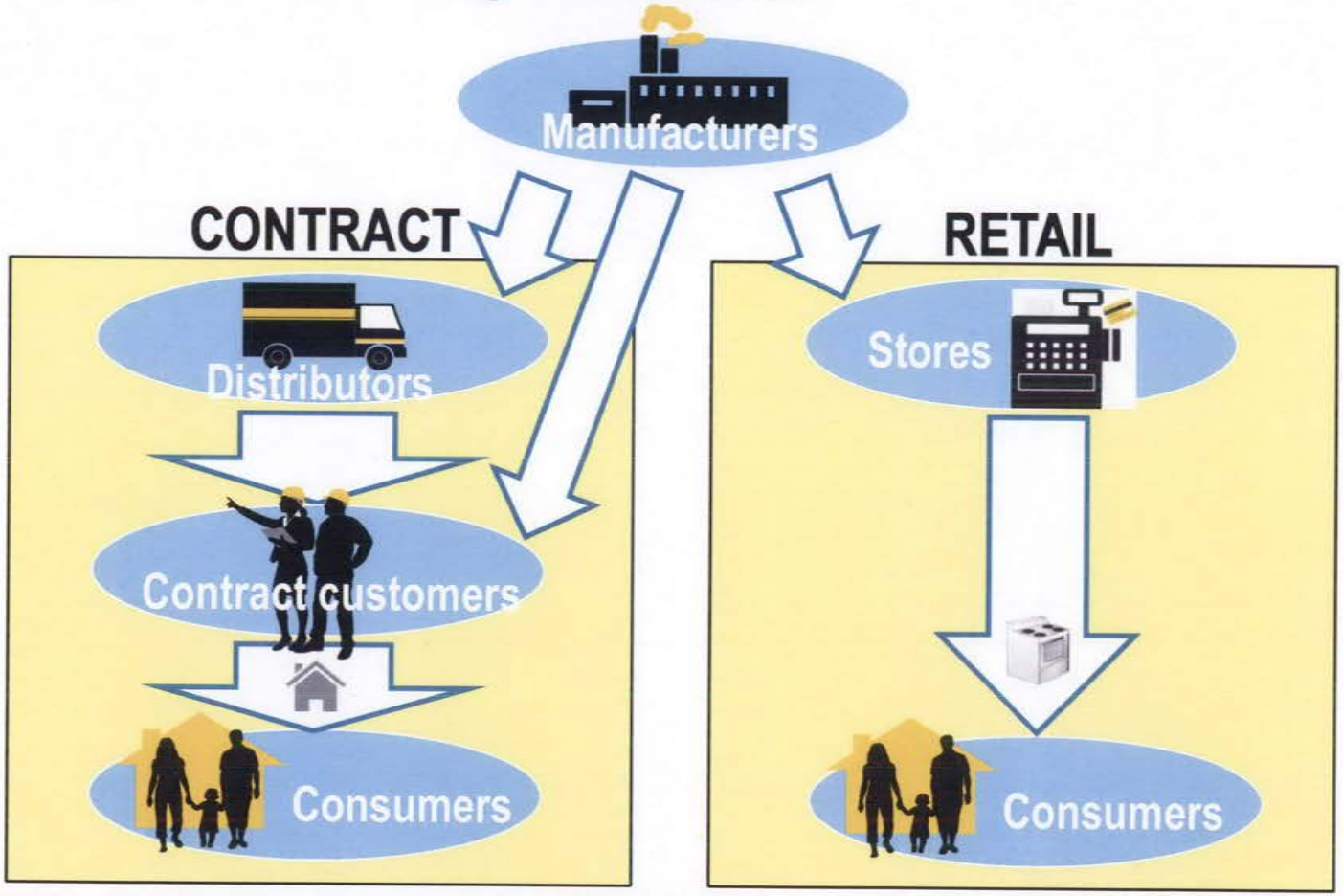
Overview: important features of the major cooking appliance industry

Paths of product flows through sales channels



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 15

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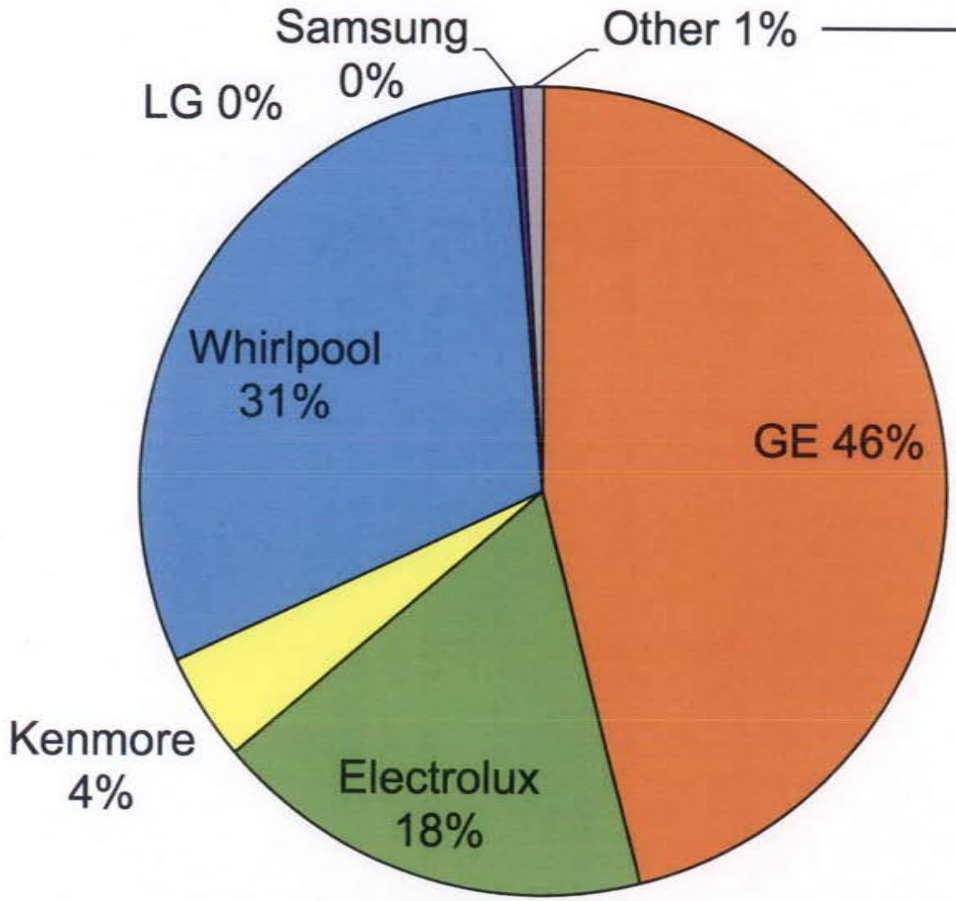
Shares: contract-channel markets

Pre-merger 2014 unit shares for range sales



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PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 35

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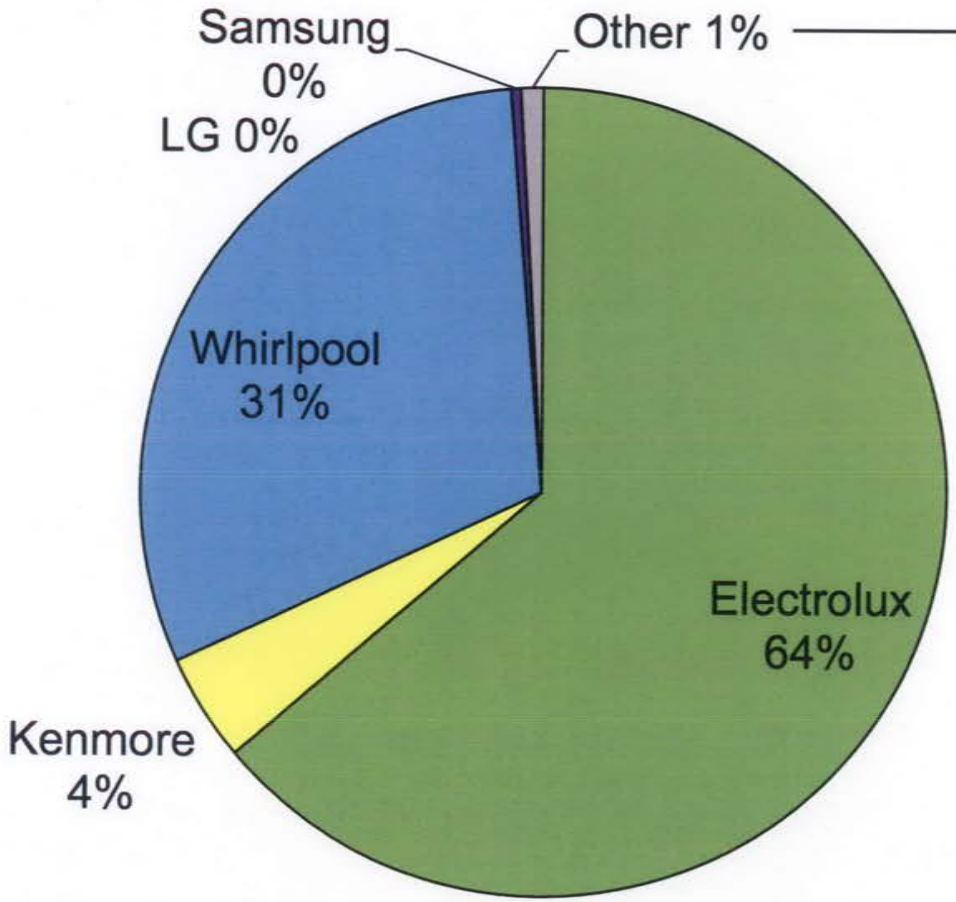
Shares: contract-channel markets

Post-merger 2014 unit shares for range sales



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PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 35

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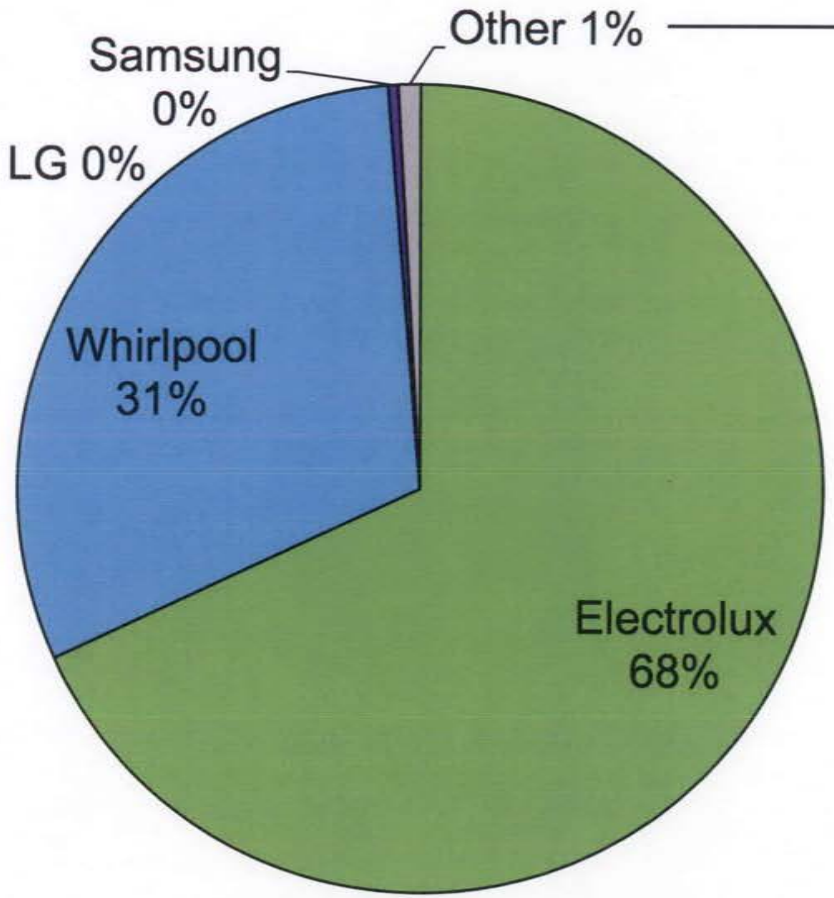

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PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 35

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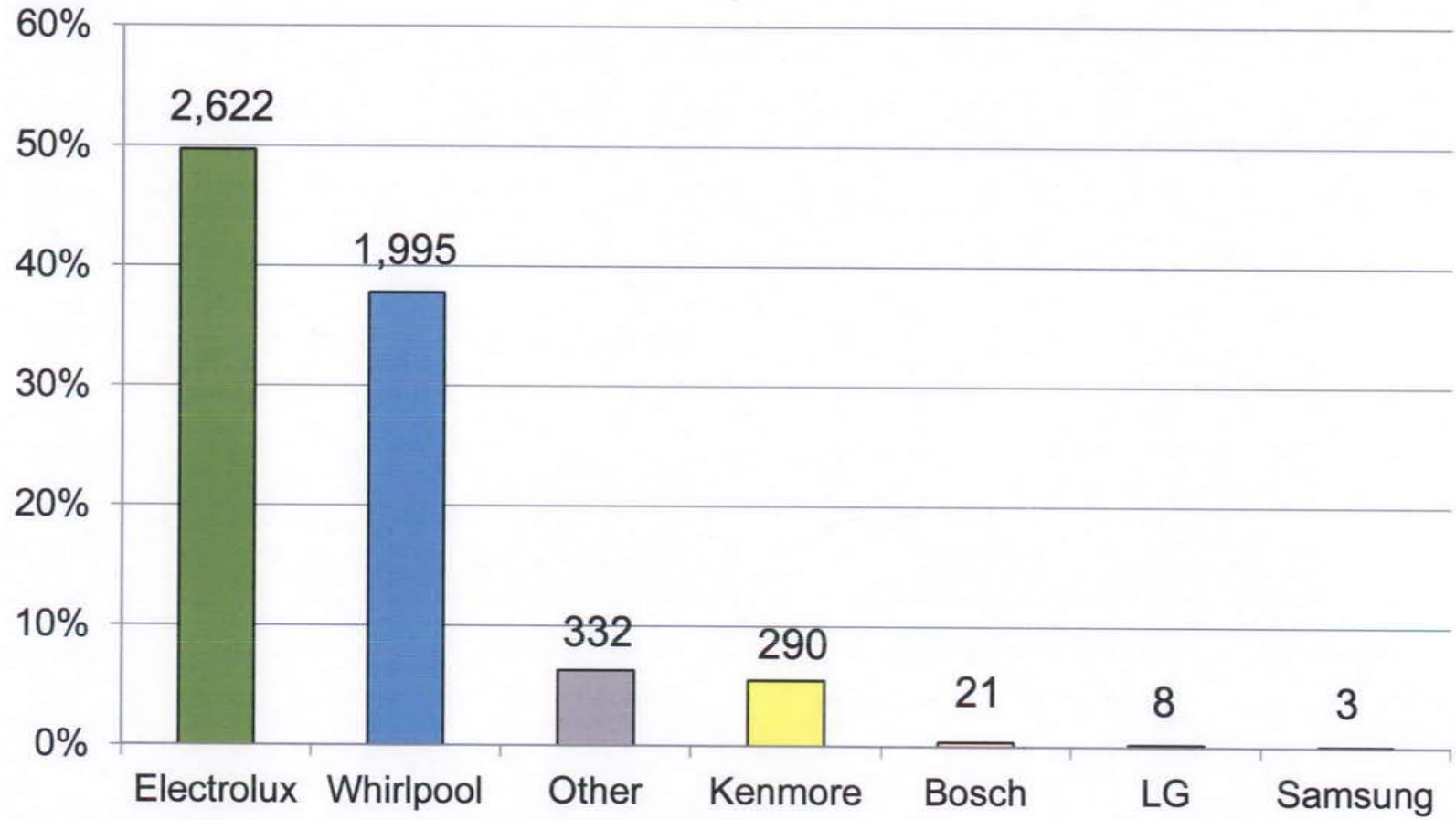
Competitive effects: direct evidence of competition that will be eliminated

Percentage of competitor mentions on final quotes in GE SmartQuote data for 2014 (ranges)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 56

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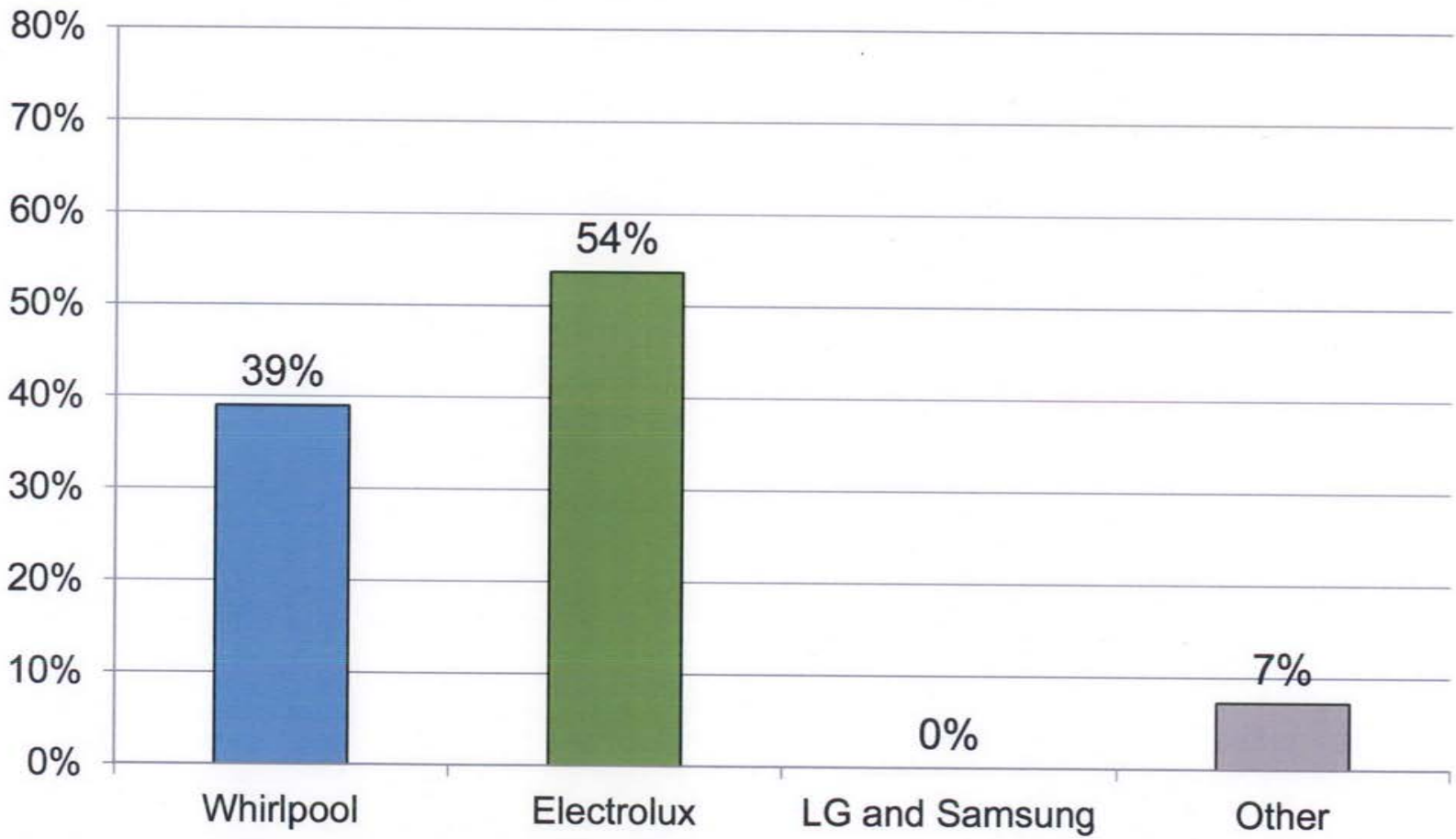
Competitive effects: direct evidence of competition that will be eliminated

Percentage of GE meet comp events for ranges in the indirect channel for 2014



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 54

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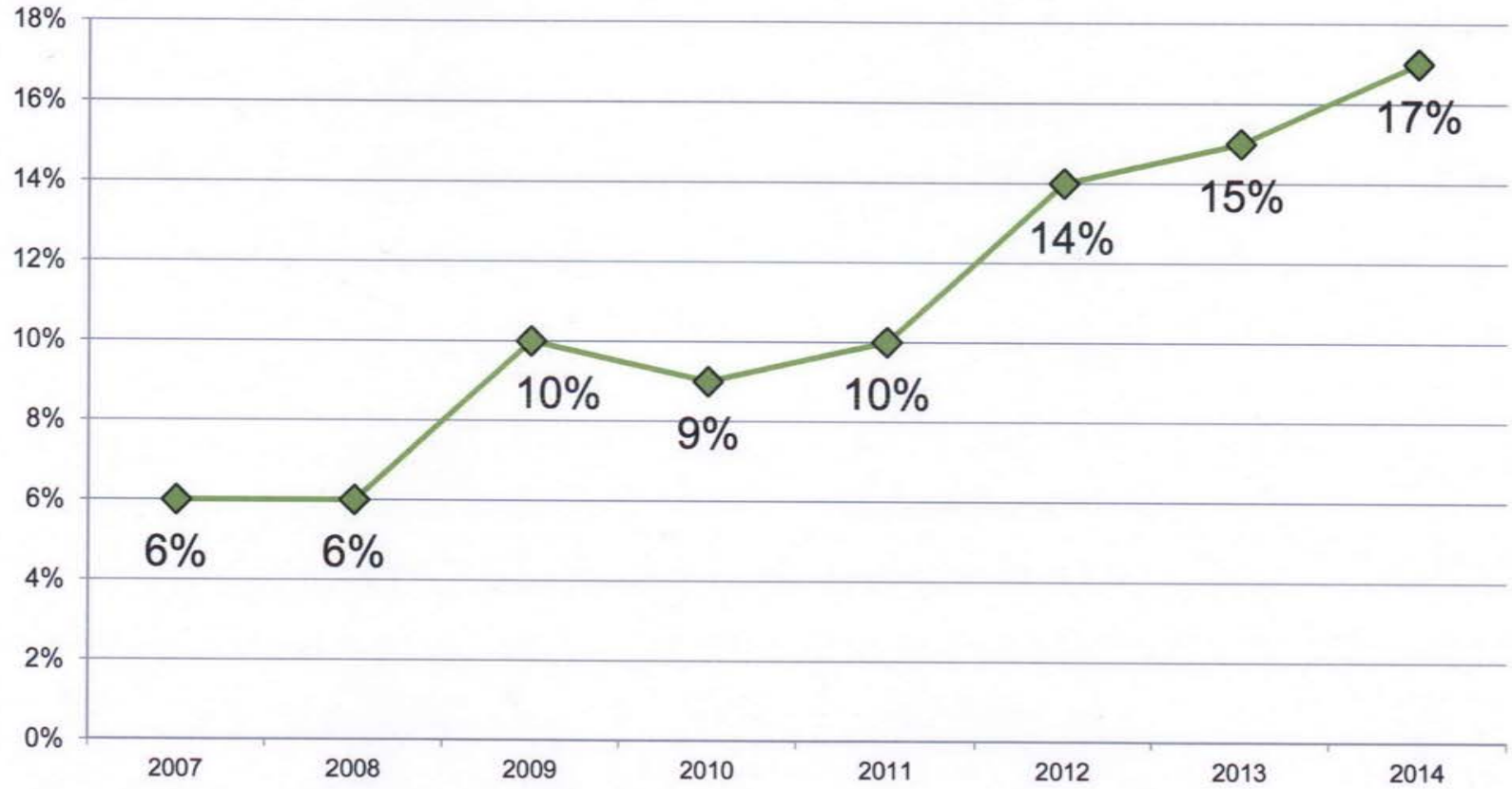
Competitive effects: Electrolux has a competitive significance in the contract channel beyond its current share

Electrolux's historical unit shares of cooking in the contract channel among sales by GE, Whirlpool and Electrolux



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 62

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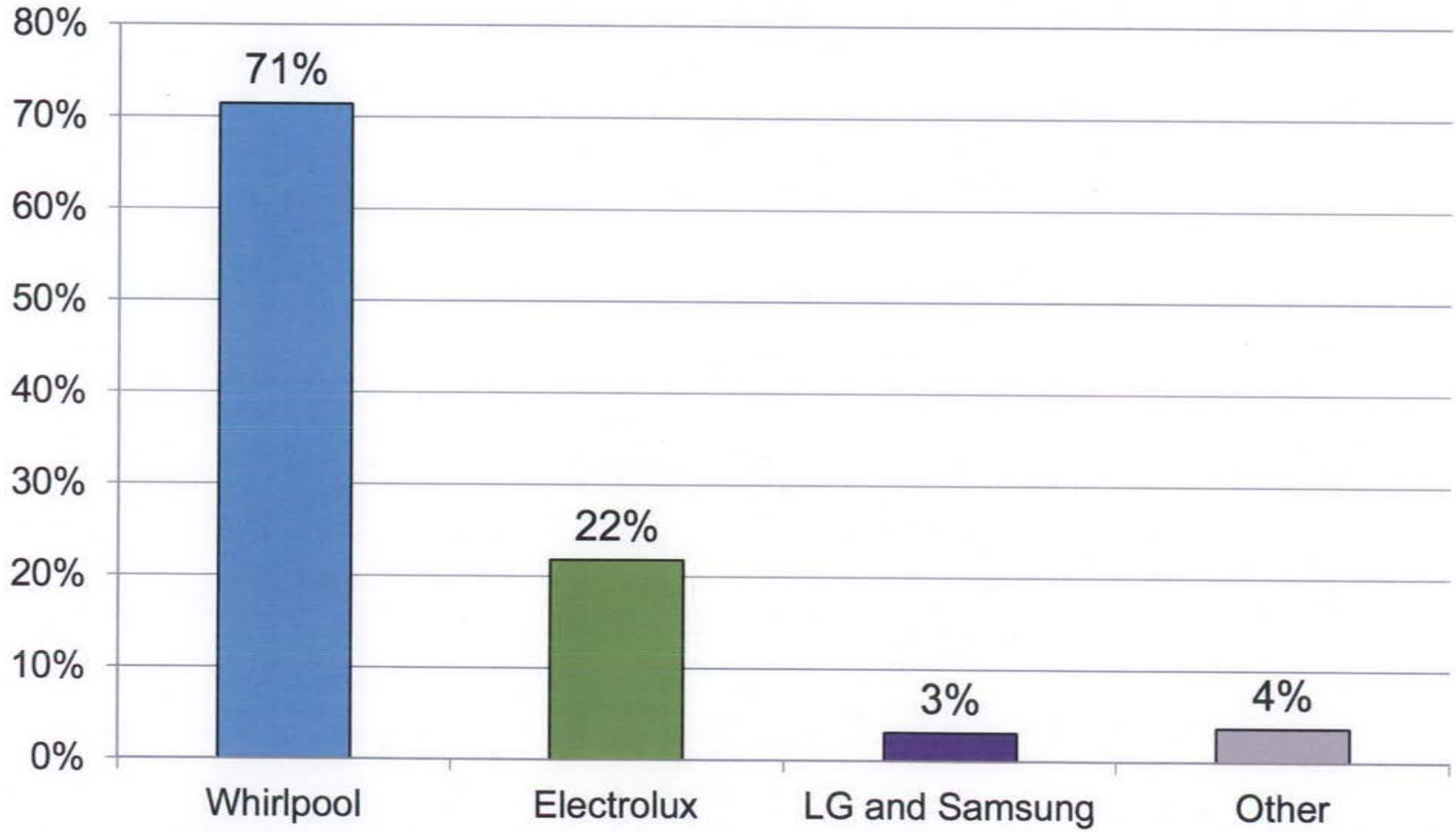
Competitive effects: direct evidence of competition that will be eliminated

Percentage of GE meet comp events for ranges in the retail channel for 2014



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 53

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Agenda

- Important features of the major cooking appliance industry
- **Market definition**
- Competitive effects
- Other factors are unlikely to prevent this harm
- Recap of conclusions

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Market definition: principles and methods

- **Goal of market definition:** Identify commerce potentially at risk for competitive harm

- **Method**: Identify products that are close substitutes in demand to those of the merging firms
  - If many customers would readily switch to other products, the merged firm will not be able to profitably raise prices

- **Market definition is a useful tool,** even if market boundaries are a bit blurry and/or hard to measure precisely

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Market definition: principles and methods

- A starting point is to look at how the industry thinks about competition
- Markets can then be tested using the **Hypothetical Monopolist Test**:
  - An antitrust market is a group of products over which **a hypothetical monopolist** that controls the price of those products **likely would impose at least a small** but significant and non-transitory **increase in price** (SSNIP)
  - Since a merger to monopoly of these products would lead to price increases, this identifies an area of *potential harm* were competition to be significantly reduced
- Then one conducts a "competitive effects" analysis to ask whether the merger likely to significantly lessen competition

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Market definition: principles and methods

- **"Price discrimination markets":**
  - In some cases, firms are able to charge different ("targeted") prices to different groups of customers
    - They may wish to do so because of differing demand characteristics of those buyers
    - Sometimes a group can even be an individual buyer
  - In such cases, a merger could raise prices to *some* "targeted" buyers, even if it does not lead to price increase for other buyers

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Market definition: conclusions

- **Markets identified using the hypothetical monopolist test:**
  - Ranges sold in the United States
  - Cooktops sold in the United States
  - Wall ovens sold in the United States

  - Ranges sold to contract-channel customers in the United States
  - Cooktops sold to contract-channel customers in the United States
  - Wall ovens sold to contract-channel customers in the United States

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Markets for ranges, cooktops, and wall ovens

- **How do we test whether a hypothetical monopolist would want to raise price?**

- Monopolist faces a trade-off:
  - raising price earns additional profit on existing customers, but
  - may lose some customers on whom the monopolist is earning a profit

- Analyze how many customers would have to be lost to make the price increase unprofitable

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Markets for ranges, cooktops, and wall ovens

Loss in sales required to make a 5% price increase unprofitable for the hypothetical monopolist

Ranges	13% - 16%
Cooktops	8%
Wall ovens	8% - 9%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), ¶ 71 and footnote 147

- **These are much larger than any plausible loss in sales from a 5% price increase**

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Contract-channel markets

Characteristics of the contract channel:

- Industry participants all recognize a distinct contract channel
  - Industry assets, investments, and organization reflect this
  - Different prices are charged to contract channel purchasers than to retail purchasers

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Contract-channel markets

Characteristics of the contract channel:

- Appliances are delivered to final consumers by the contract customer as part of a bundle
  - e.g., an entire house or apartment
- Delivery performance is critical
- Service is key, both before and after the sale
- Many large contract channel customers want a supplier with a full line of appliances and price points
- A contract customer (e.g., single or multi-family builder) can more easily focus on one or two manufacturers than can a retailer who wants to build traffic in his/her store
- Some contract customers desire direct contracting with the manufacturer

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Contract-channel markets for ranges, cooktops, and wall ovens

- Contract-channel customers are at risk for post-merger 5% price increase, even if retail prices are unaffected, because:
  - They value distributor / manufacturer services not available through retail channel
  - Many are receiving much more than a 5% discount relative to retail
    - Would have better pricing in contract channel even after a 5% price increase

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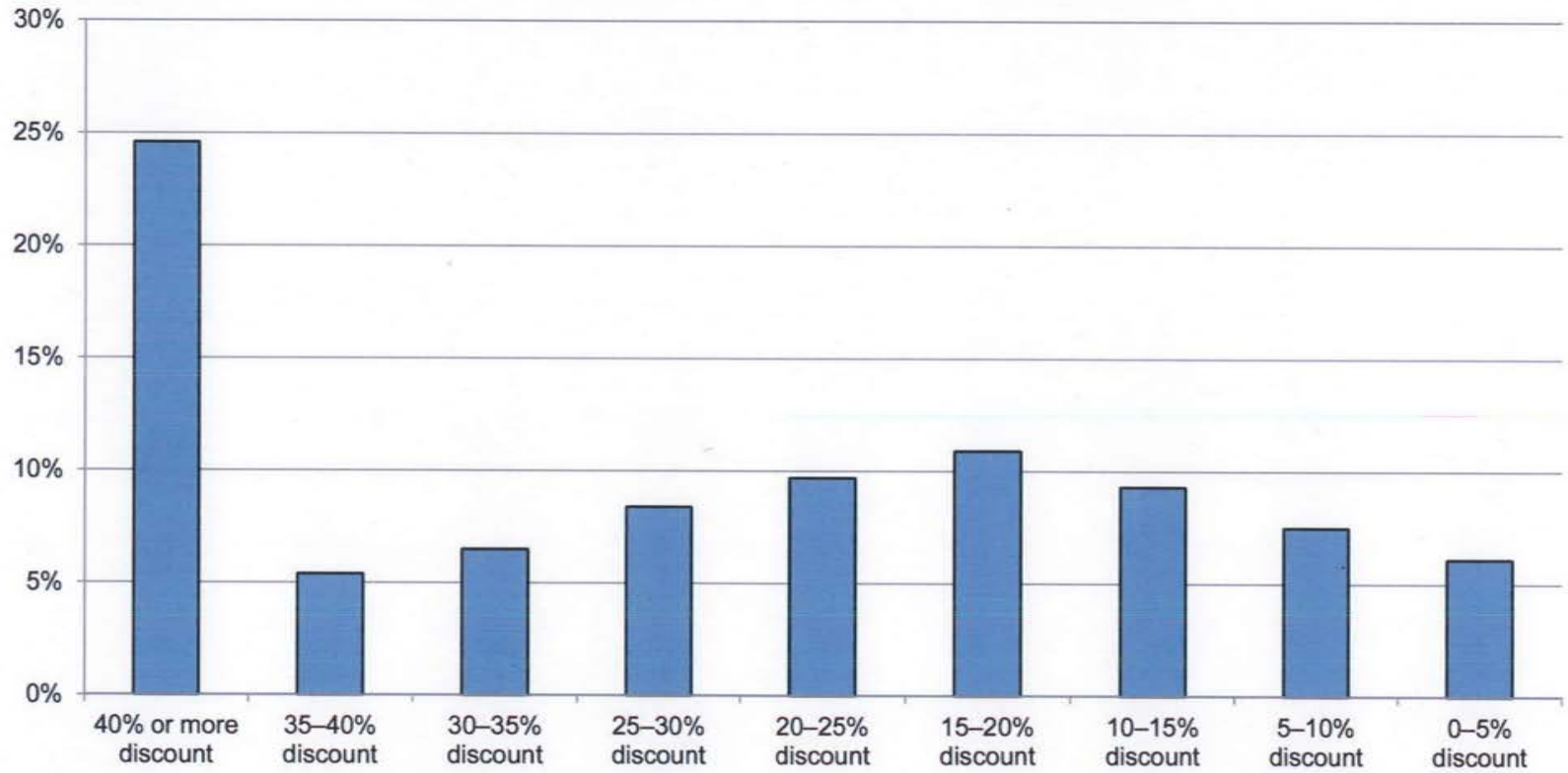
Contract-channel markets for ranges, cooktops, and wall ovens

Fraction of GE direct contract-channel range sales for which the lowest average weekly retail price (Best Buy, Lowe's, or The Home Depot) in the same week exceeds the direct-contract price by various percentages (2014)



PX02004 (Supplemental expert report of Michael D. Whinston, November 7, 2015), Fig. 34

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Agenda

- Overview: important features of the major cooking appliance industry
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Shares and concentration

- Concentration is usually measured by the "Herfindahl-Hirschman Index" (HHI)
  - HHI = sum of squared market shares
  - Examples:
    - Monopoly: HHI = 10,000
    - Two equal-sized firms: HHI = 5,000
    - Four equal-sized firms: HHI = 2,500
    - Many very small firms: HHI is close to 0

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Shares and concentration

- *Merger Guidelines* define various presumptions based on
  - the *post-merger HHI* and
  - the *change in the HHI*

- Presumption of enhanced market power if:
  - *Post-merger HHI > 2500* and
  - *HHI change > 200*

- Mergers that greatly increase the concentration in already concentrated industries are likely to lead to higher prices

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2014 unit shares for cooking appliance sales

	Ranges	Cooktops	Wall ovens	All cooking
GE	28.1%	25.3%	24.8%	27.6%
Electrolux	23.4%	11.2%	12.3%	21.2%
Kenmore	10.9%	7.1%	9.8%	10.4%
Whirlpool	26.1%	38.6%	39.0%	28.5%
LG	3.2%	0.9%	0.6%	2.8%
Samsung	6.3%	0.0%	0.0%	5.2%
Bosch	0.6%	9.6%	7.3%	2.0%
Crosley	0.4%	0.0%	0.0%	0.3%
Dacor	0.1%	1.2%	0.7%	0.2%
Danby	0.2%	0.0%	0.0%	0.2%
Fisher & Paykel	0.1%	0.5%	0.2%	0.1%
Haier	0.0%	0.0%	0.0%	0.0%
Midea	0.0%	0.0%	0.0%	0.0%
Miele	0.0%	0.7%	1.5%	0.2%
Sub-Zero	0.4%	3.6%	3.1%	0.9%
Viking	0.2%	1.2%	0.8%	0.3%
GE and Electrolux	51.5%	36.5%	37.0%	48.8%
GE, Electrolux, and Kenmore	62.4%	43.6%	46.9%	59.2%
Units sold	6.379 million	729 thousand	705 thousand	7.814 million
Dollars sold	$3.666 billion	$533 million	$1.005 billion	$5.204 billion

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 29, 30, and 31

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2014 concentration measures for cooking appliance sales (units)

	Ranges	Cooktops	Wall ovens	All cooking
Pre-merger HHI	2,191	2,413	2,449	2,169
Post-merger HHI	3,506	2,981	3,056	3,340
Change in HHI (delta HHI)	1,315	568	607	1,171

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 31,and 44

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2014 concentration measures for cooking appliance sales (units)

with Kenmore treated as Electrolux

	Ranges	Cooktops	Wall ovens	All cooking
Pre-merger HHI	2,698	2,573	2,690	2,612
Post-merger HHI	4,625	3,501	3,785	4,357
Change in HHI (delta HHI)	1,926	928	1,095	1,745

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 33 and 45

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Why these measures understate the likelihood of competitive harm

- HHI measures treat all firms as if they are equally close competitors to the merging firms
- In the markets for ranges, cooktops, and wall ovens, all firms are not equally close competitors to the merging firms:
  - Only three firms have a significant contract channel presence
  - Much of Electrolux, GE, and Whirlpool's sales occur at lower price points than for the other firms in the market, such as LG and Samsung

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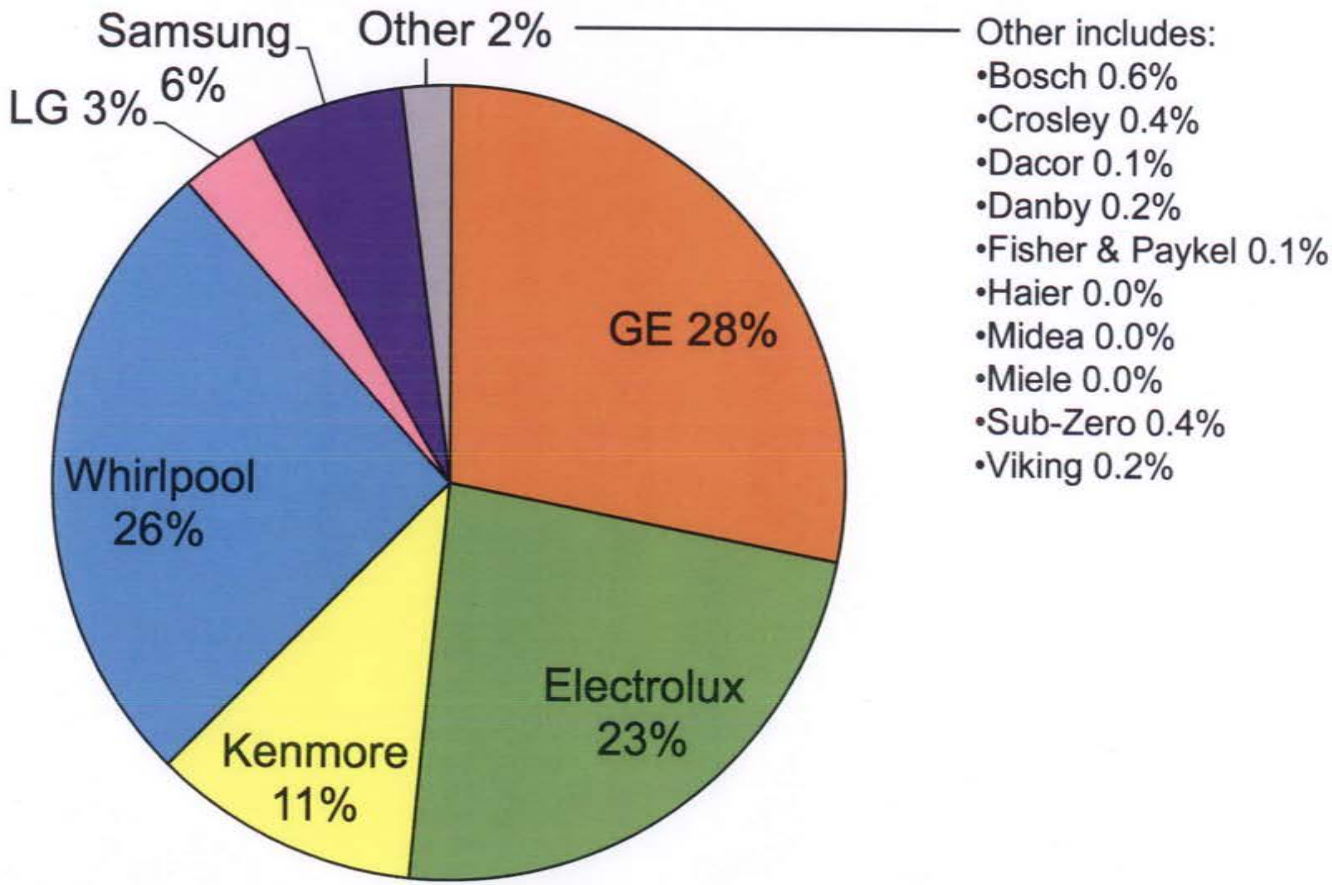
Why these measures understate the likelihood of competitive harm

Pre-merger 2014 unit shares for overall range sales



PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 31

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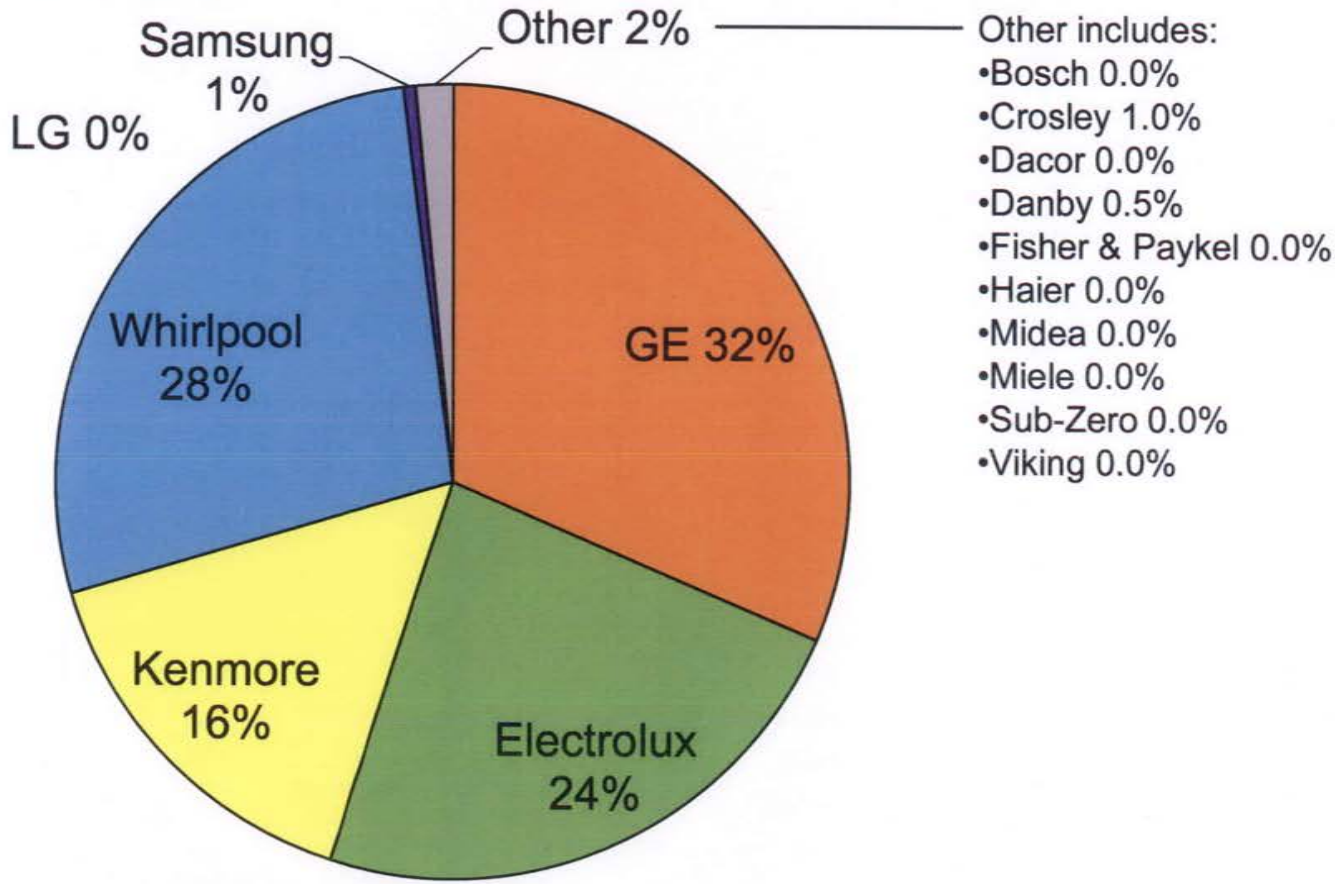
Why these measures understate the likelihood of competitive harm

Pre-merger 2014 unit shares for range sales in the bottom two quintiles (net wholesale prices below $365)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 39

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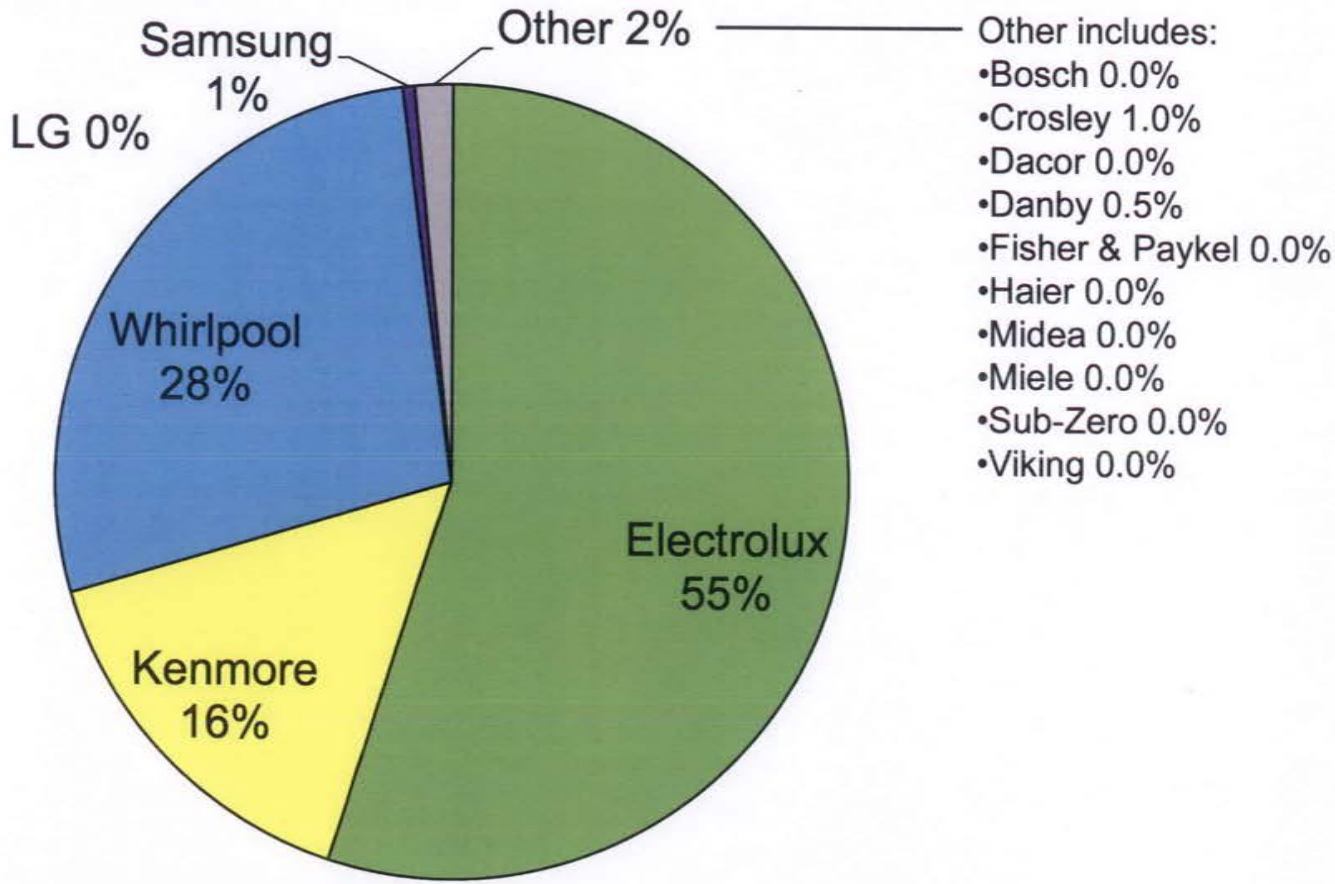

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 39

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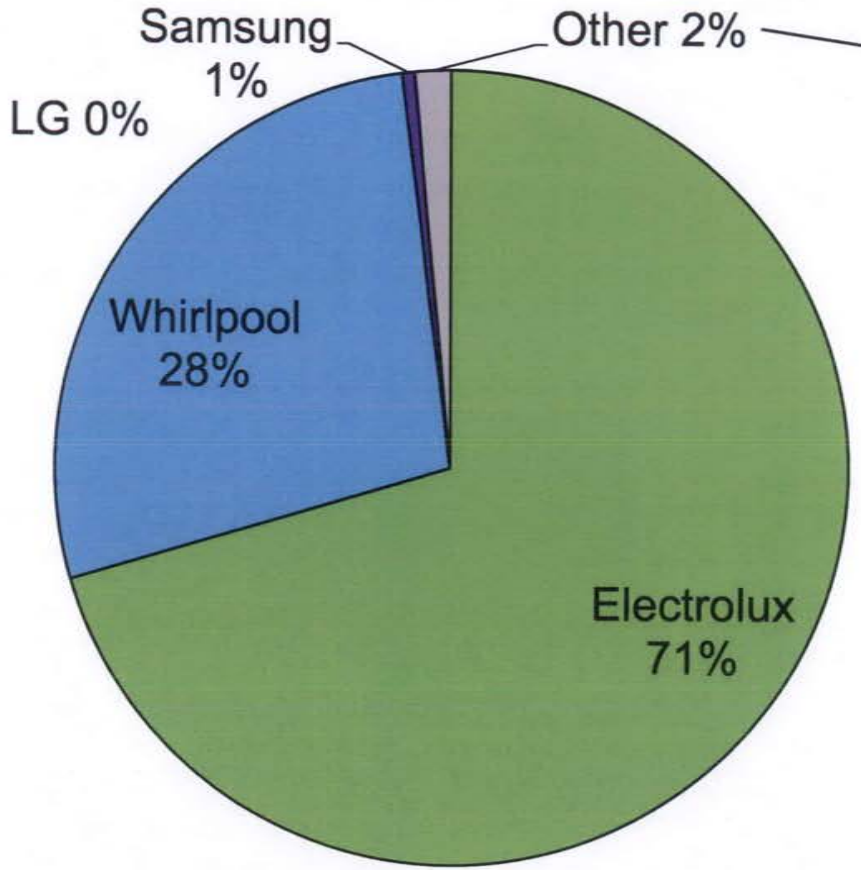
Why these measures understate the likelihood of competitive harm

Post-merger 2014 unit shares for range sales in the bottom two quintiles (net wholesale prices below $365) assigning Kenmore sales to Electrolux



Other includes:
- Bosch 0.0%
- Crosley 1.0%
- Dacor 0.0%
- Danby 0.5%
- Fisher & Paykel 0.0%
- Haier 0.0%
- Midea 0.0%
- Miele 0.0%
- Sub-Zero 0.0%
- Viking 0.0%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 39

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER IN CASE
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2014 unit shares for cooking appliance sales in the contract channel

	Ranges	Cooktops	Wall ovens	All cooking
GE	46.0%	40.7%	37.3%	44.5%
Electrolux	17.7%	9.8%	9.8%	15.9%
Kenmore	4.3%	2.3%	3.0%	4.0%
Whirlpool	30.6%	40.7%	43.8%	33.2%
LG	0.0%	0.0%	0.0%	0.0%
Samsung	0.4%	0.0%	0.0%	0.3%
Bosch	0.3%	3.4%	3.1%	0.9%
Crosley	0.2%	0.0%	0.0%	0.2%
Dacor	0.0%	0.3%	0.2%	0.1%
Danby	0.1%	0.0%	0.0%	0.1%
Fisher & Paykel	0.0%	0.1%	0.1%	0.0%
Haier	0.0%	0.0%	0.0%	0.0%
Midea	0.0%	0.0%	0.0%	0.0%
Miele	0.0%	0.6%	1.0%	0.2%
Sub-Zero	0.2%	1.6%	1.3%	0.5%
Viking	0.1%	0.6%	0.3%	0.2%
GE and Electrolux	63.7%	50.5%	47.2%	60.4%
GE, Electrolux, and Kenmore	68.1%	52.8%	50.1%	64.4%
Units sold	1.594 million	223 thousand	232 thousand	2.050 million
Dollars sold	$777 million	$149 million	$287 million	$1.213 billion

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 35, 37 and 38

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2014 concentration measures for cooking appliance sales in the contract channel (units)

	Ranges	Cooktops	Wall ovens	All cooking
Pre-merger HHI	3,387	3,428	3,433	3,350
Post-merger HHI	5,016	4,225	4,167	4,768
Change in HHI (delta HHI)	1,629	796	734	1,418

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 35 and 46

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2014 concentration measures for cooking appliance sales in the contract channel (units)

with Kenmore treated as Electrolux

	Ranges	Cooktops	Wall ovens	All cooking
Pre-merger HHI	3,541	3,474	3,492	3,477
Post-merger HHI	5,570	4,460	4,449	5,248
Change in HHI (delta HHI)	2,029	986	957	1,771

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 47

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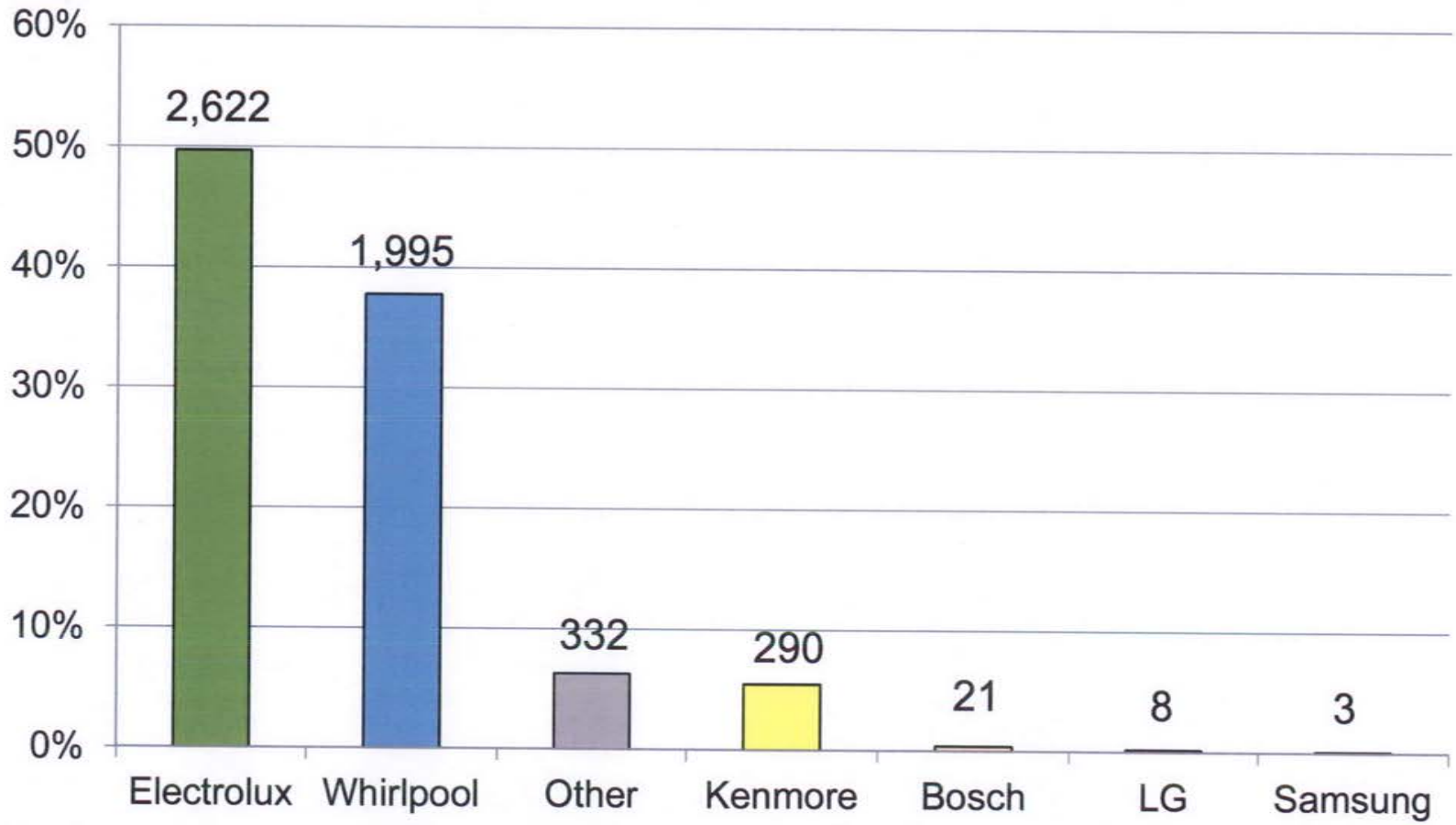
NO. 15-1039-EGS (D.D.C.)

Electrolux has a competitive significance beyond its current share

Percentage of competitor mentions on final quotes in GE SmartQuote data for 2014 (ranges)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 56

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Competitive effects: direct evidence of competition that will be eliminated

- **GE SmartQuote data** record the full history of price revisions for each quoting opportunity and the primary competitor
- Revisions that lowered price (with no revision of quantity) named Electrolux as the main competitor 45% of the time
  - Whirlpool was named 42% of the time
- On average, those quote revisions listing Electrolux reduced price 7% for ranges, 15% for cooktops, and 12% for wall ovens

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Competitive effects: incentives to raise price

- One can measure the incentive to raise price by calculating "*upward pricing pressure*" *(UPP)*
- A standard tool used by economists and recognized in the *Horizontal Merger Guidelines*

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Competitive effects: incentives to raise price

COMPASS LEXECON

Where Does the UPP Formula Come From? (cont)

- Intellectual underpinnings go back a long way.
- Willig (1991) included the basic concept
- Shapiro, as chief economist at the DOJ, extended the idea in 1995
- Shapiro and Farrell as academics provided more intellectual heft to UPP idea
- Shapiro and Farrell as Chief Economists at DOJ/FTC, respectively, introduced idea into Guidelines

DOJ-LIT-00019328

PX01709

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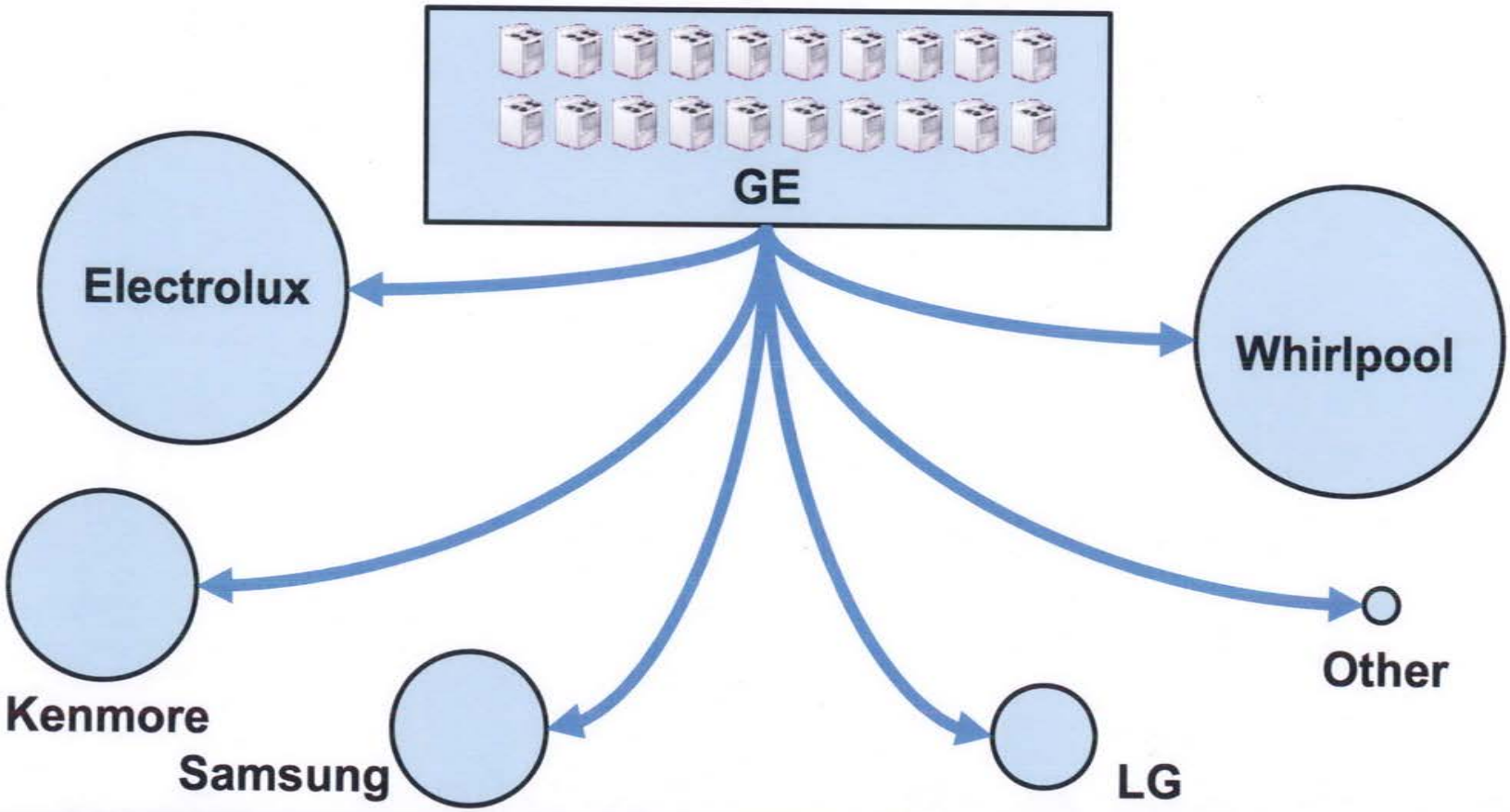
Pre-merger effects of a price increase for GE ranges

GE price increase causes some customers to switch to other brands. Sales lost to GE's competitors reduce profitability of the price increase.



CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER IN CASE NO. 15-1039-EGS (D.D.C.)

Pre-merger effects of a price increase for GE ranges

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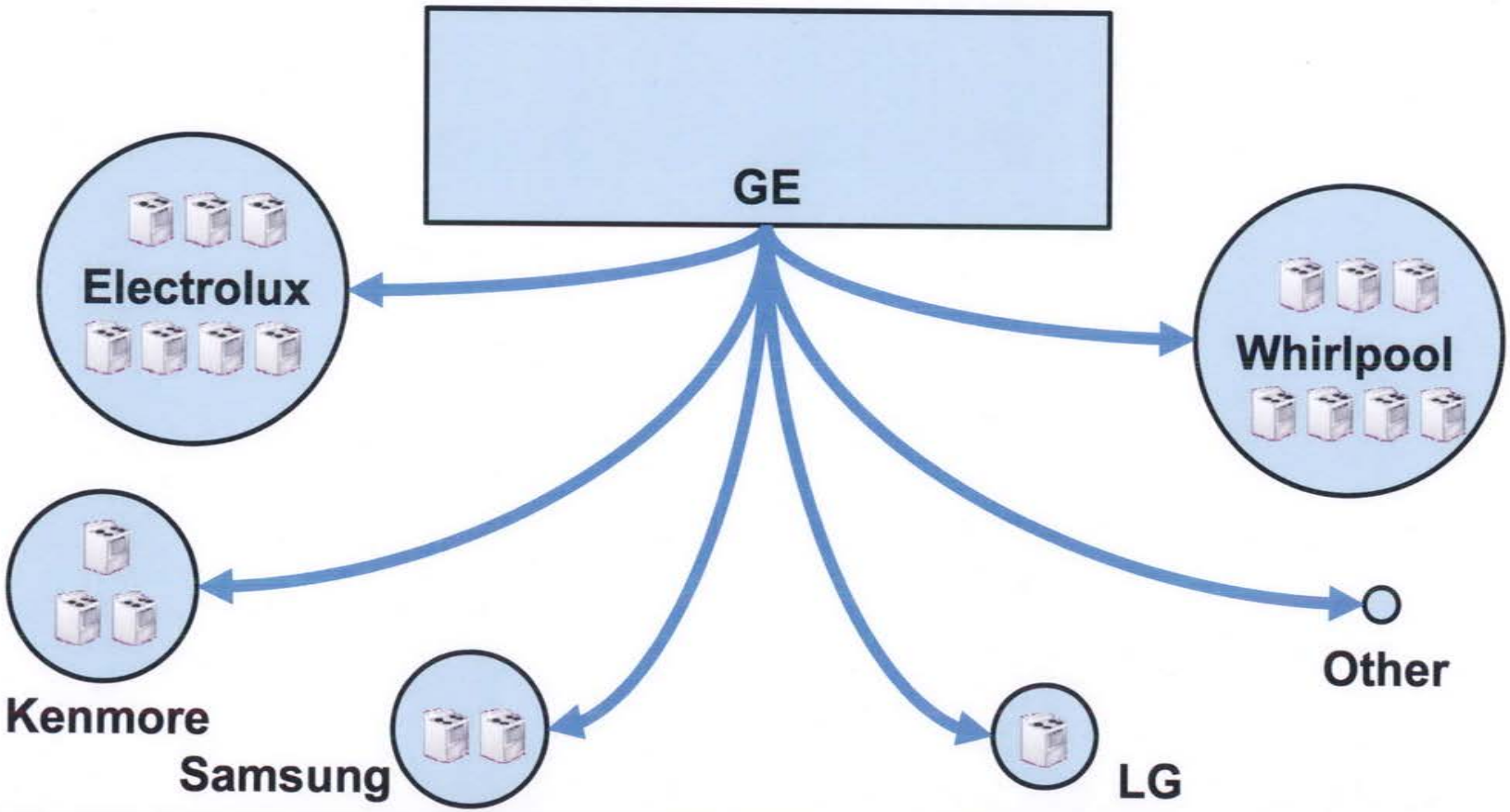

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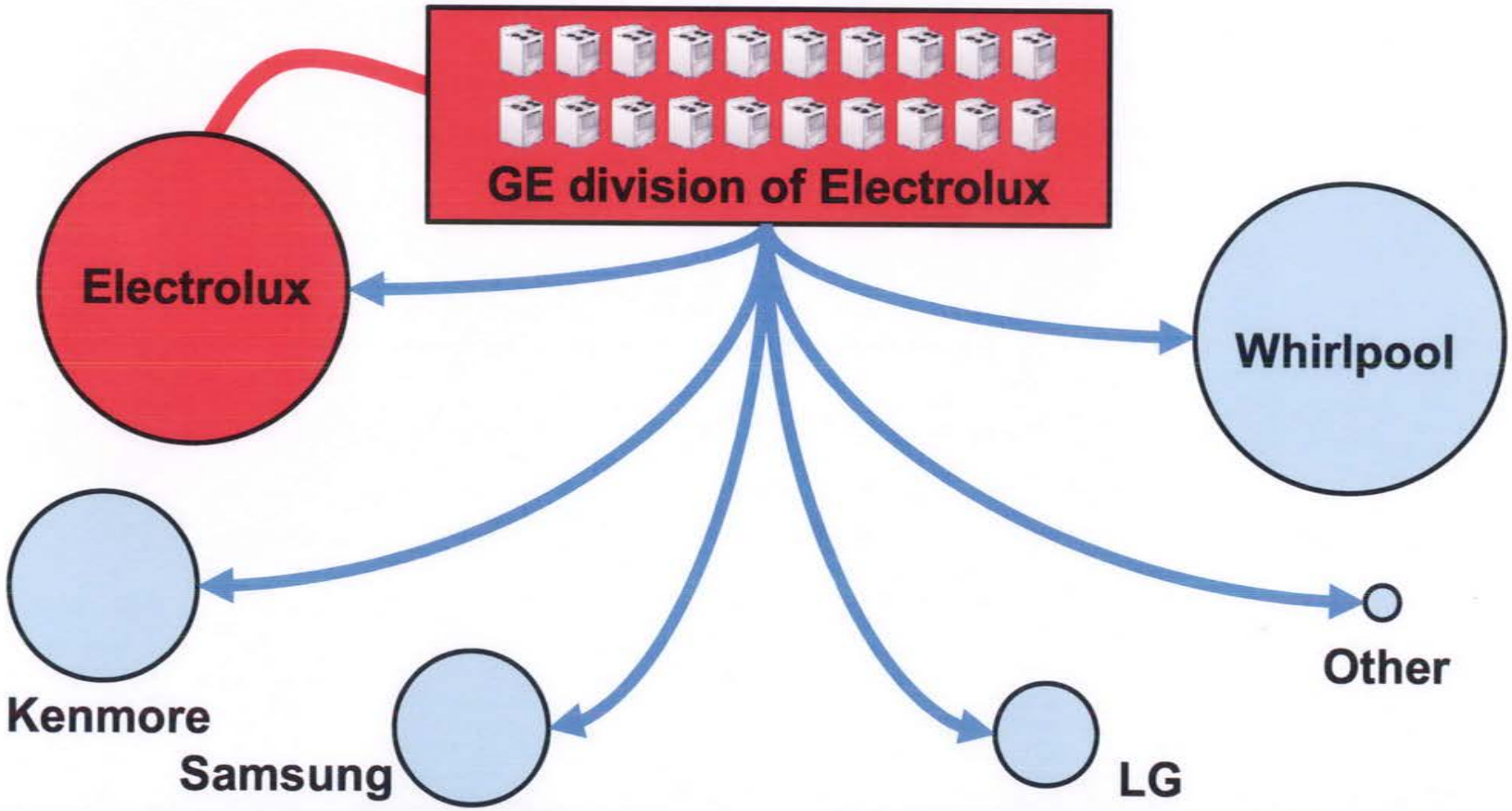
Post-merger effects of a price increase for GE ranges

The same GE price increase becomes profitable after the merger, because some of GE's loss is a gain for Electrolux. ("Internalization")



CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER IN CASE NO. 15-1039-EGS (D.D.C.)

Post-merger effects of a price increase for GE ranges

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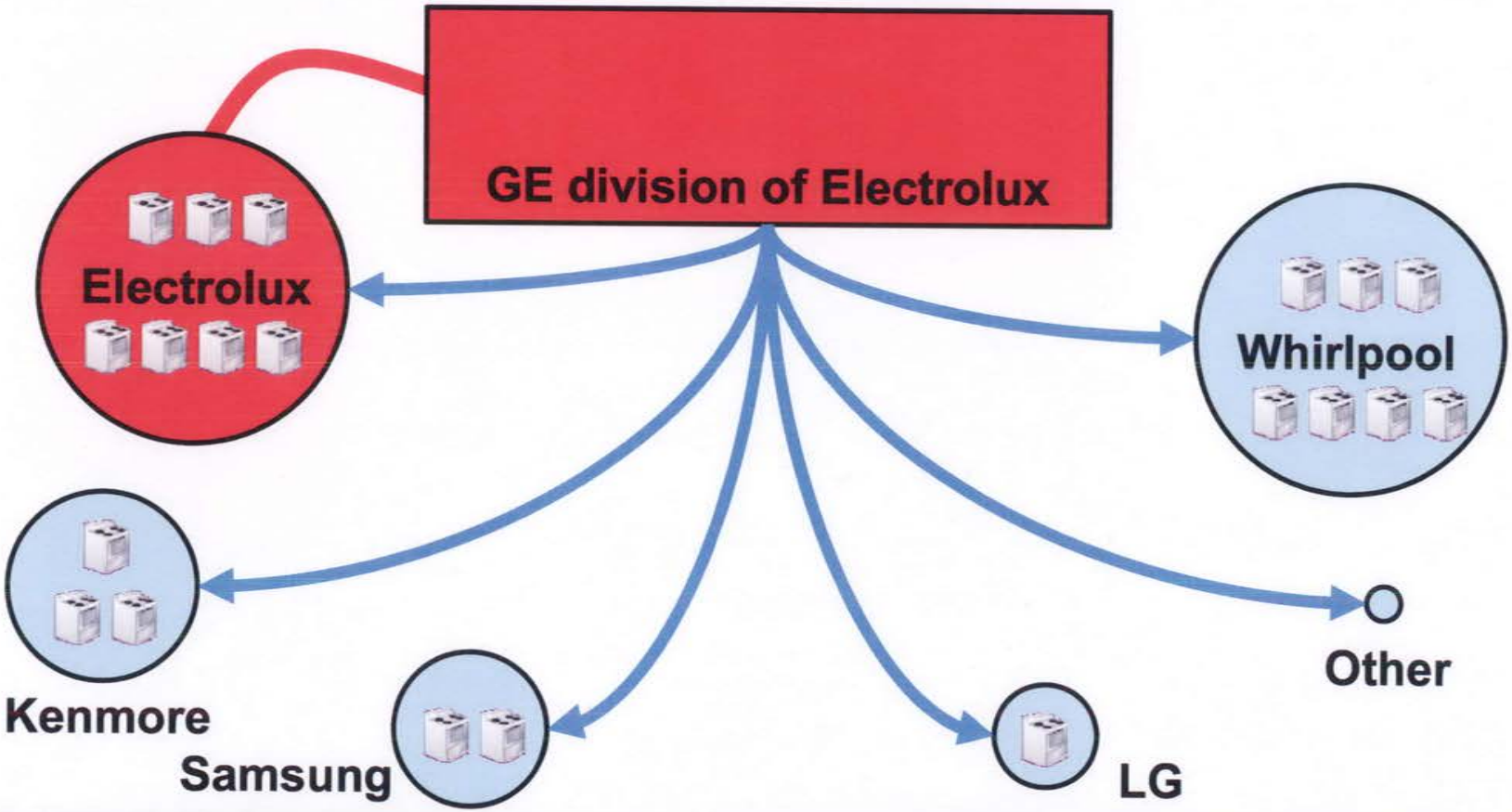

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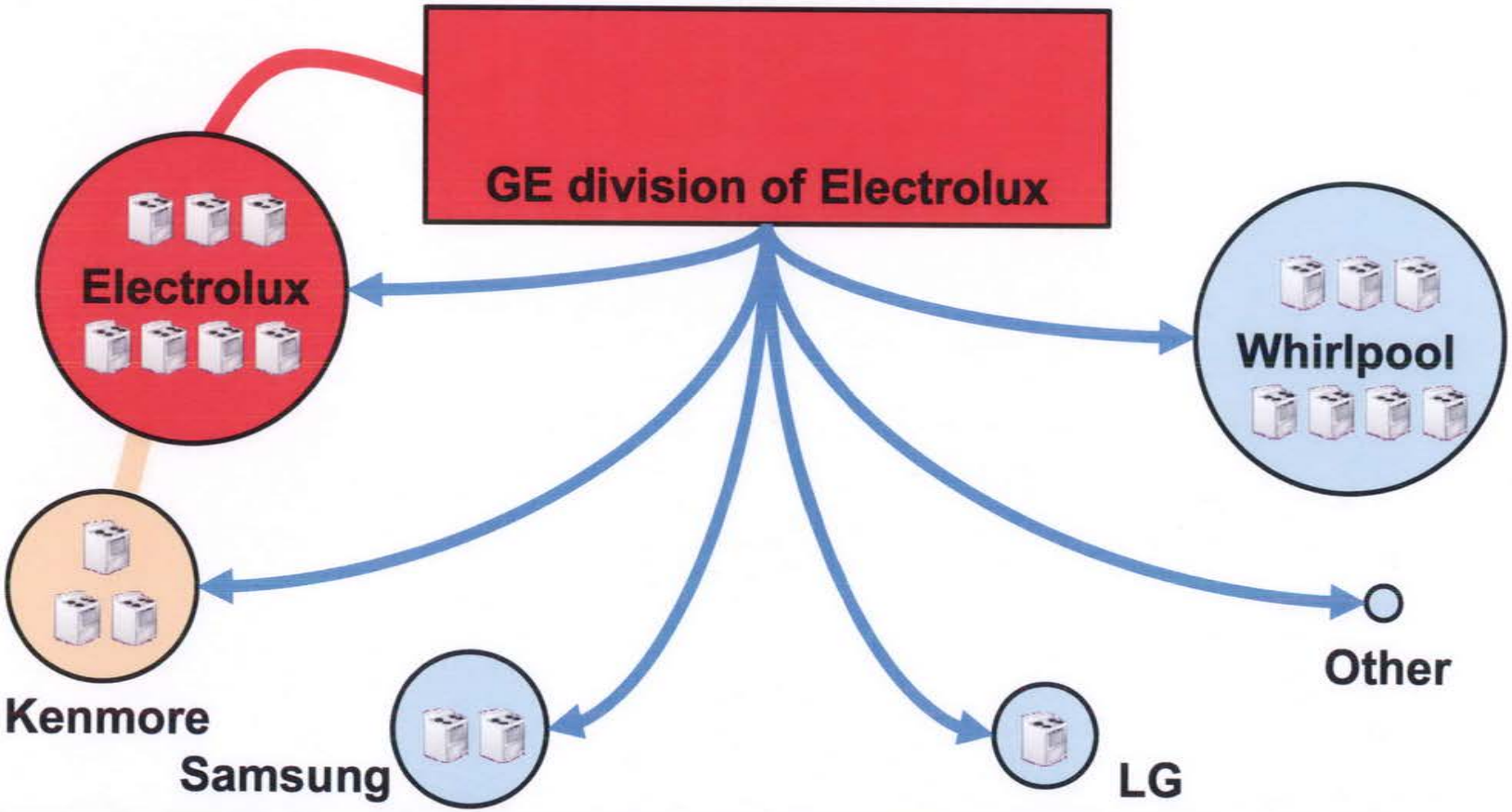
Post-merger effects of a price increase for GE ranges

The merged firm also profits from GE sales diverted to Kenmore



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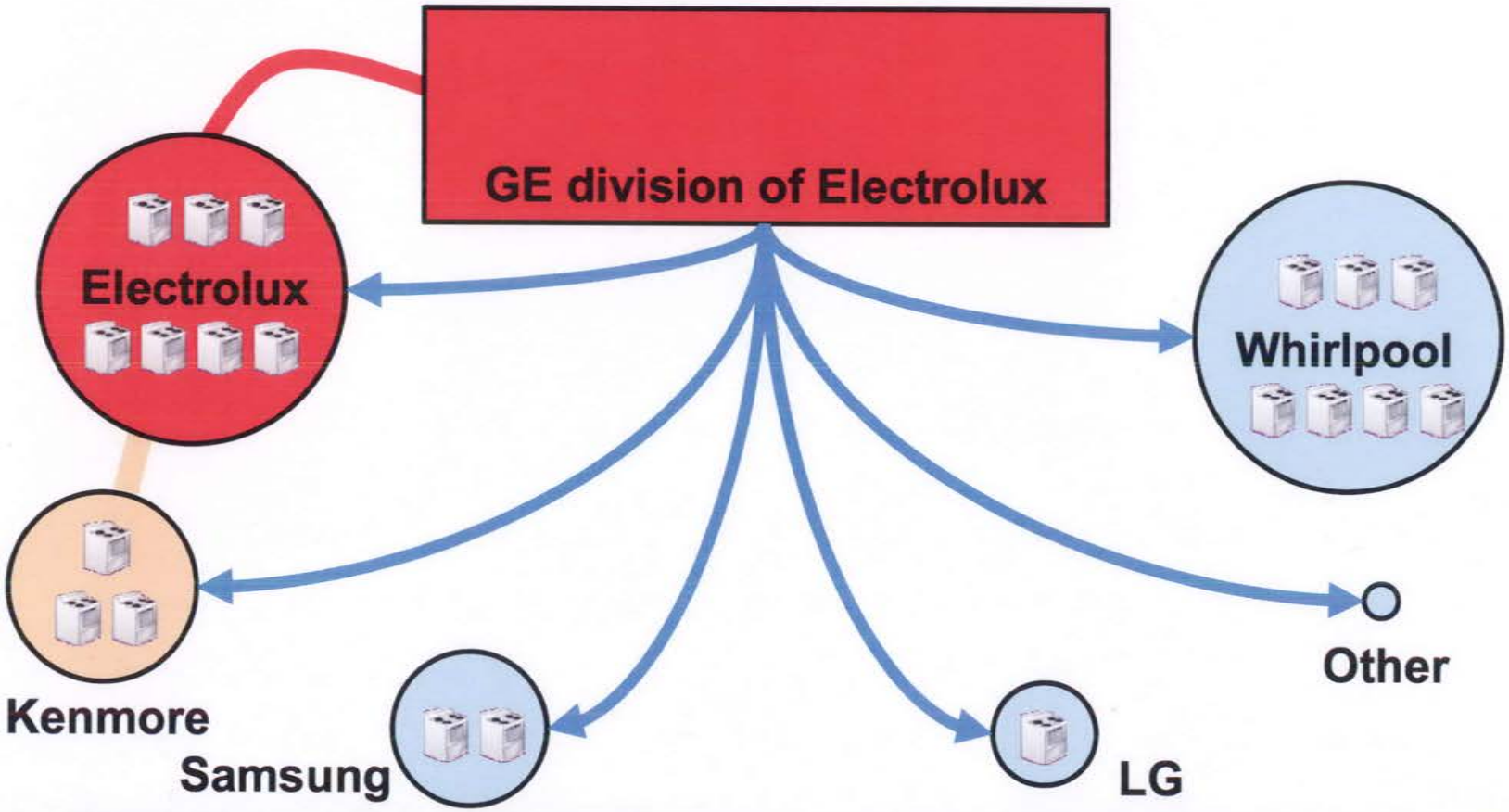
Post-merger effects of a price increase for GE ranges

Upward Pricing Pressure for GE brand =
[sales diverted to Electrolux and Kenmore] x [margin on those sales]



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Competitive effects: unilateral incentives to raise price

UPP as a percentage of cost in the overall markets

	Ranges	Cooktops	Wall ovens
Electrolux	16%	47%	33%
GE	15%	13%	17%

Means that the merger must lead to a 16% reduction in marginal cost to prevent there being a unilateral incentive to raise Electrolux range prices after the merger.

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 50

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Competitive effects: unilateral incentives to raise price

UPP as a percentage of cost in the overall markets

	Ranges	Cooktops	Wall ovens
Electrolux	16%	47%	33%
GE	15%	13%	17%

- These UPPs likely under-estimate true upward pricing pressure
- Claimed variable cost efficiencies for cooking are only 3.25%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 50

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NO. 15-1039-EGS (D.D.C.)

Competitive effects: unilateral incentives to raise price

UPP as a percentage of cost in the contract channel

	Ranges	Cooktops	Wall ovens
Electrolux	25%	54%	34%
GE	15%	13%	12%

- These UPPs likely under-estimate true upward pricing pressure
- Claimed variable cost efficiencies for cooking are only 3.25%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 51

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Predicted price increases implied by UPP

Unilateral price increases implied by UPP, assuming various demand functions, using a first-order approximation (lower bounds)

Manufacturer	Ranges	Cooktops	Wall ovens
Electrolux	5% to 10%	11% to 21%	7% to 15%
GE	6% to 11%	3% to 5%	4% to 8%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 60

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Predicted price increases for the contract channel implied by UPP

Unilateral price increases for the contract channel implied by UPP, assuming various demand functions, using a first-order approximation (lower bounds)

Manufacturer	Ranges	Cooktops	Wall ovens
Electrolux	8% to 16%	12% to 25%	9% to 17%
GE	5% to 11%	3% to 6%	3% to 7%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 61

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Agenda

- Important features of the major cooking appliance industry
- Market definition
- Competitive effects
- **Other factors are unlikely to prevent this harm**
- Recap of conclusions

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NO. 15-1039-EGS (D.D.C.)

REDACTED

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REDACTED

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Growth by LG and Samsung is unlikely to prevent post-merger price increases

- Even if Samsung and LG (or other rivals) grow twice as fast over the next 4 years as in 2010–2014, there would still be a large incentive to exercise a unilateral price increase

UPP as a percentage of cost based on all unit sales, increasing Samsung and LG's joint share by 10.4 percentage points in each market

	Ranges	Cooktops	Wall ovens
Electrolux	14%	41%	29%
GE	13%	11%	15%

PX02003 (Rebuttal expert report of Michael D. Whinston, October 20, 2015), Fig. 28

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Agenda

- Important features of the major cooking appliance industry
- Market definition
- Competitive effects
- Other factors are unlikely to prevent this harm
- **Recap of conclusions**

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Recap of conclusions

- **This merger creates a very significant likelihood of price increases due to reduced competition**
  - Large increase in concentration
  - Large degree of "internalization," leading to significant unilateral incentives to raise prices
  - Increased risk of coordinated price increases, especially in the contract channel
  - New entry or "repositioning" are unlikely to counteract these effects
  - Claimed cost-savings are much too small to offset these effects

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GE-Electrolux merger analysis

Michael D. Whinston

November 23, 2015

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NO. 15-1039-EGS (D.D.C.)

Appendix A

Cooktop and wall oven figures

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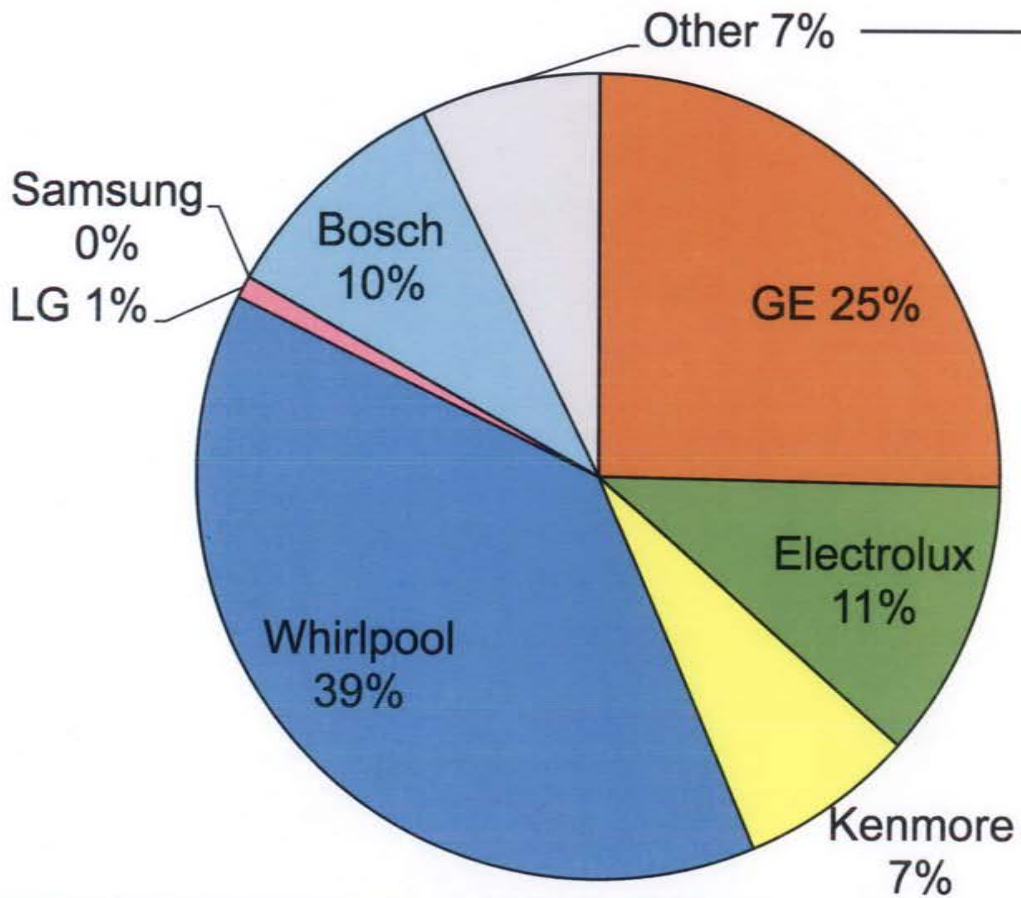
Shares: overall markets

Pre-merger 2014 unit shares for cooktop sales



Other includes:
- Crosley 0.0%
- Dacor 1.2%
- Danby 0.0%
- Fisher & Paykel 0.5%
- Haier 0.0%
- Midea 0.0%
- Miele 0.7%
- Sub-Zero 3.6%
- Viking 1.2%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 31

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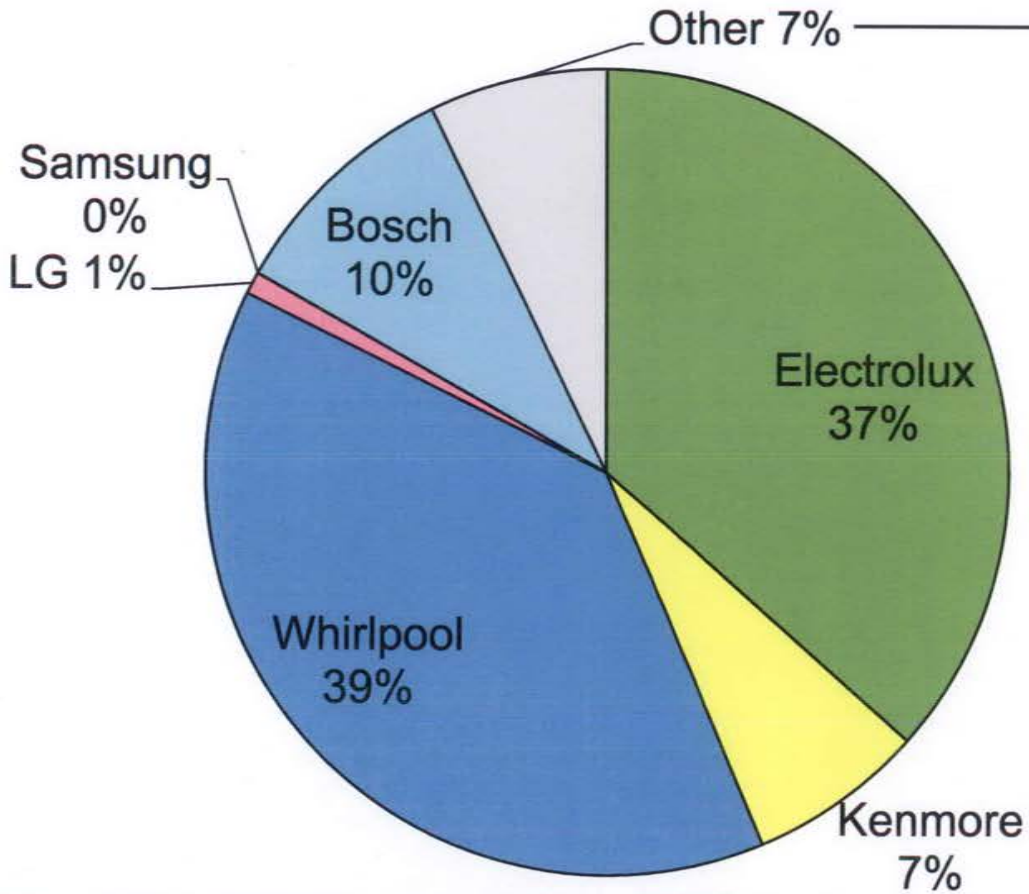
Shares: overall markets

Post-merger 2014 unit shares for cooktop sales



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- Danby 0.0%
- Fisher & Paykel 0.5%
- Haier 0.0%
- Midea 0.0%
- Miele 0.7%
- Sub-Zero 3.6%
- Viking 1.2%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 31

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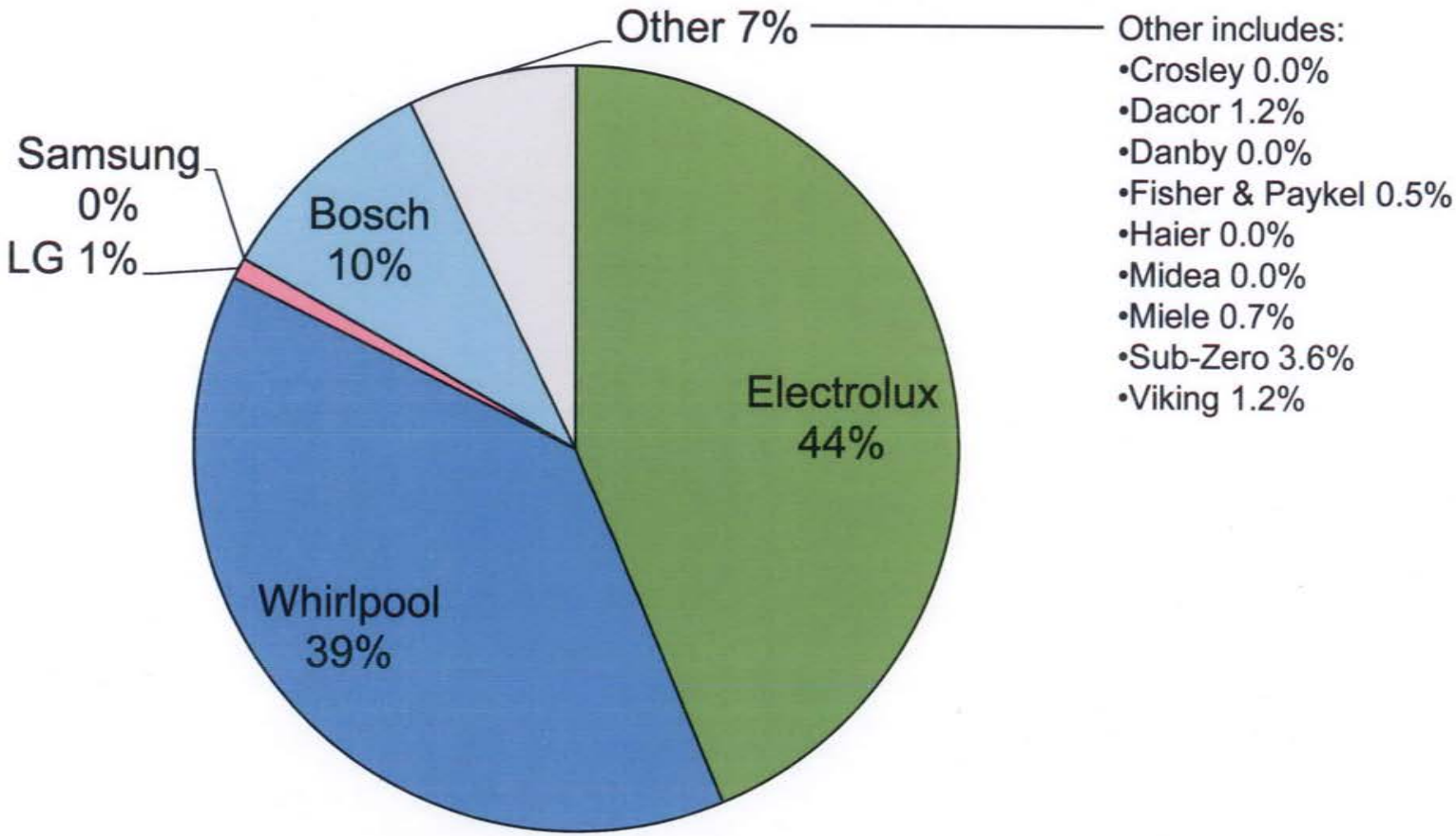
Shares: overall markets

Post-merger 2014 unit shares for cooktop sales assigning Kenmore sales to Electrolux



PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 33

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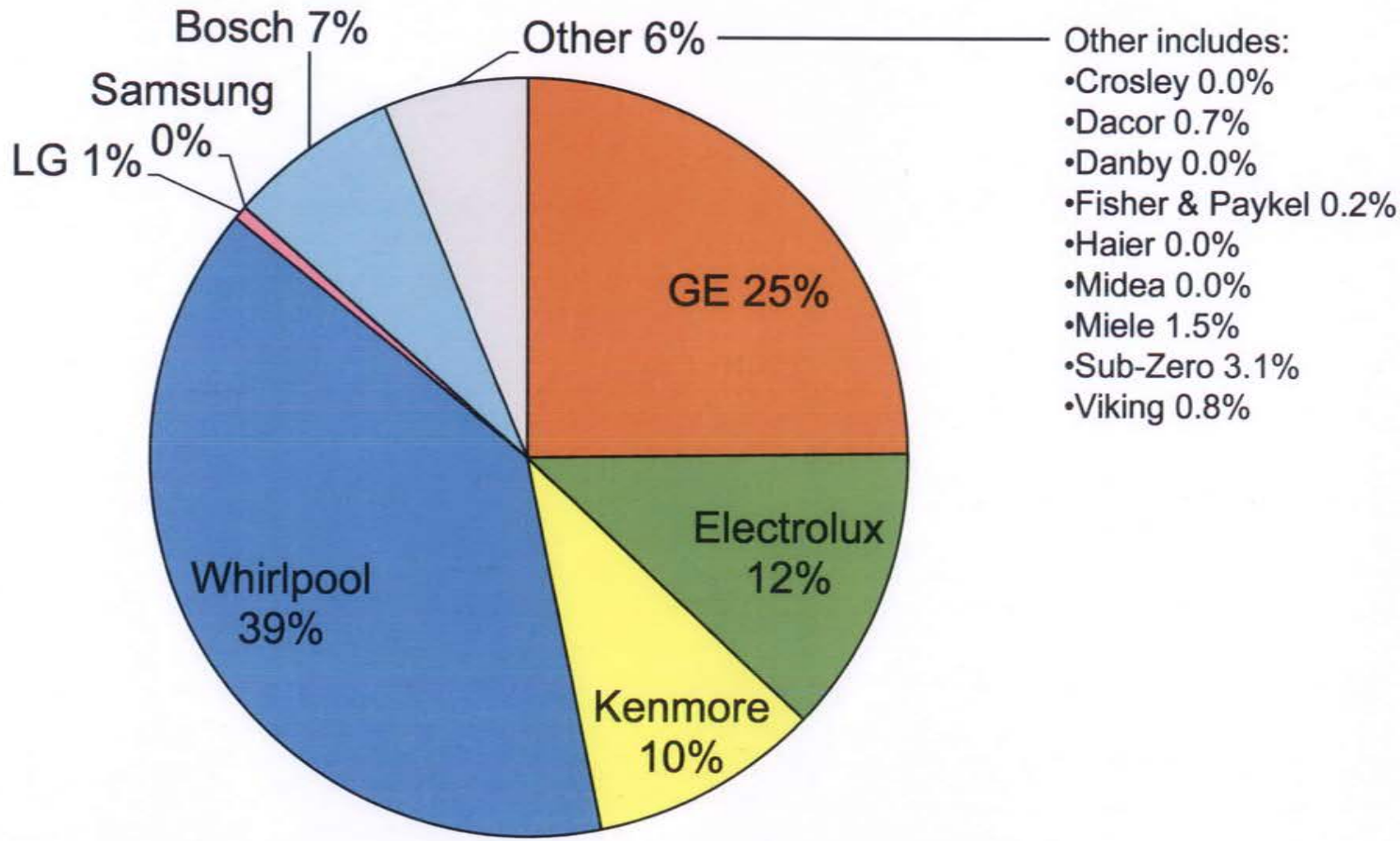
Shares: overall markets

Pre-merger 2014 unit shares for wall oven sales



PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 31

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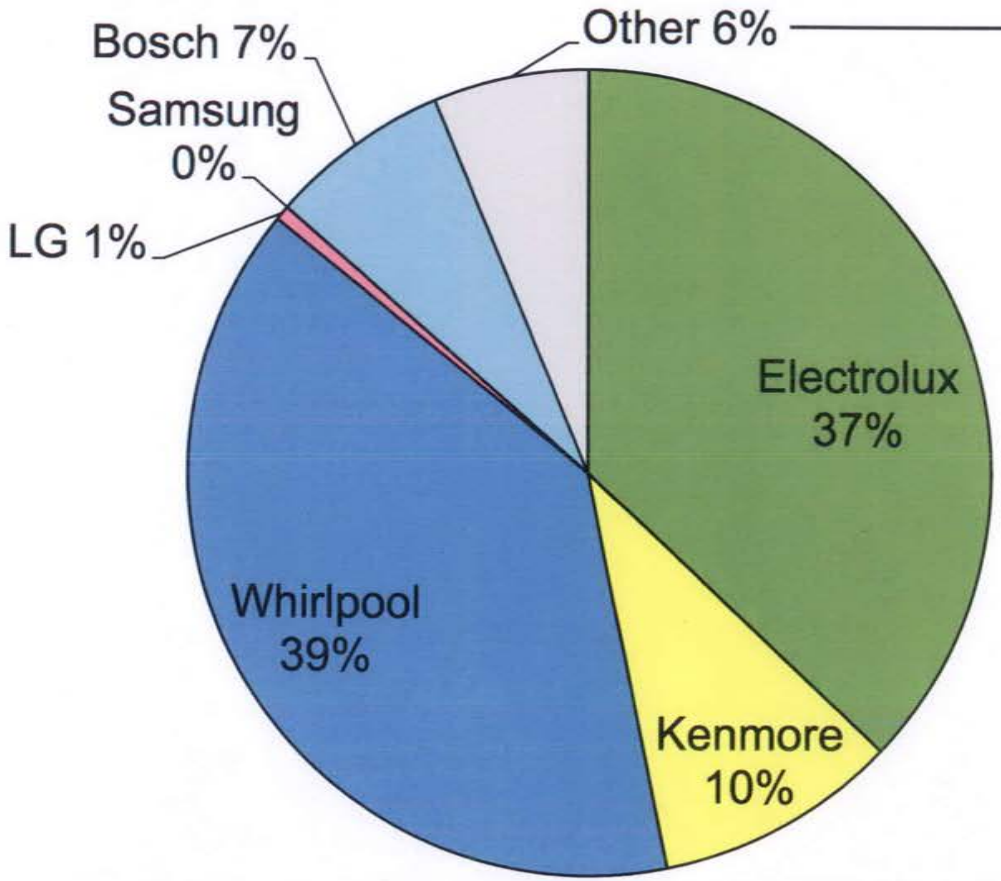
Shares: overall markets

Post-merger 2014 unit shares for wall oven sales



Other includes:
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- Dacor 0.7%
- Danby 0.0%
- Fisher & Paykel 0.2%
- Haier 0.0%
- Midea 0.0%
- Miele 1.5%
- Sub-Zero 3.1%
- Viking 0.8%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 31

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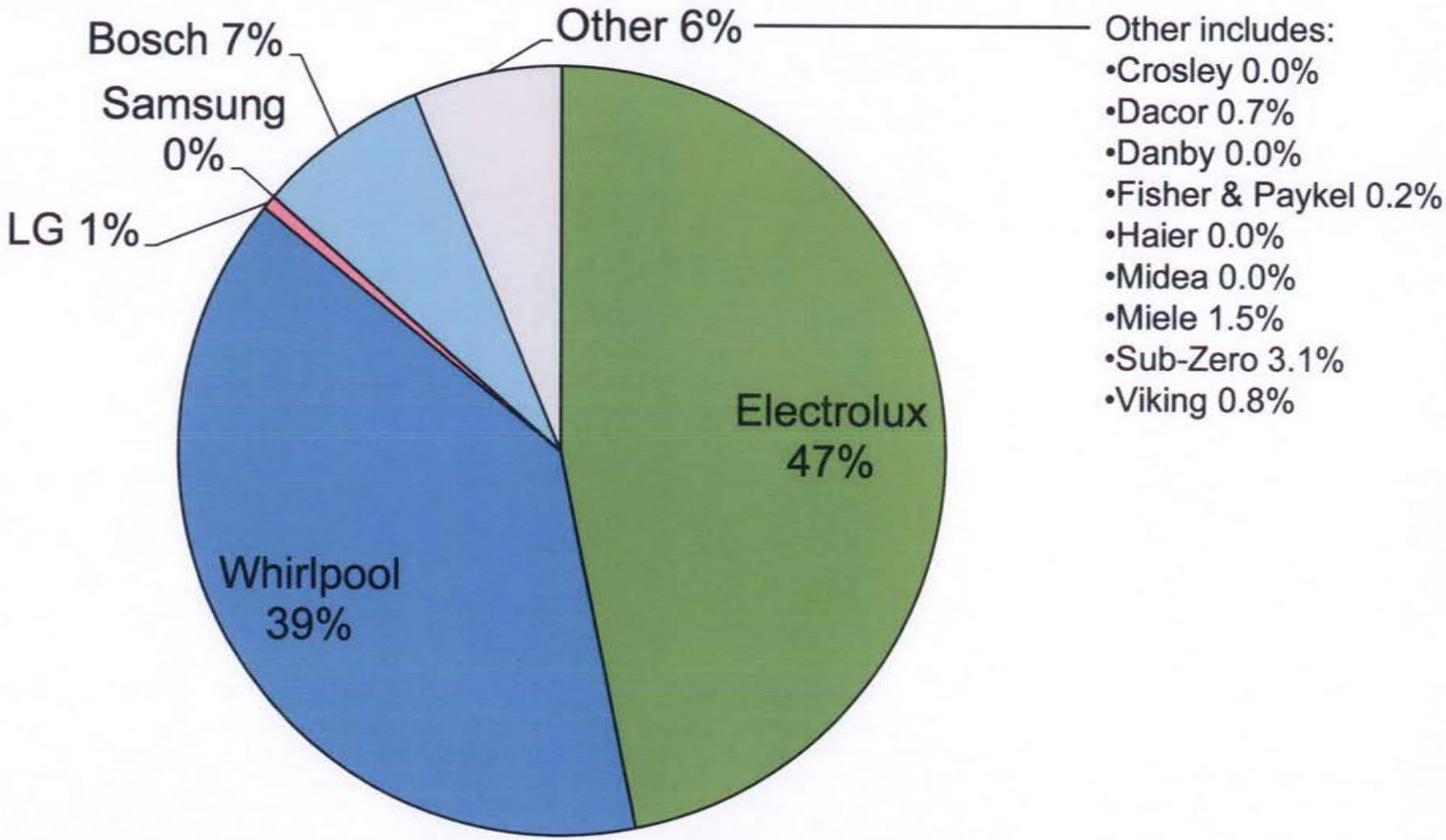
Shares: overall markets

Post-merger 2014 unit shares for wall oven sales assigning Kenmore sales to Electrolux



PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 33

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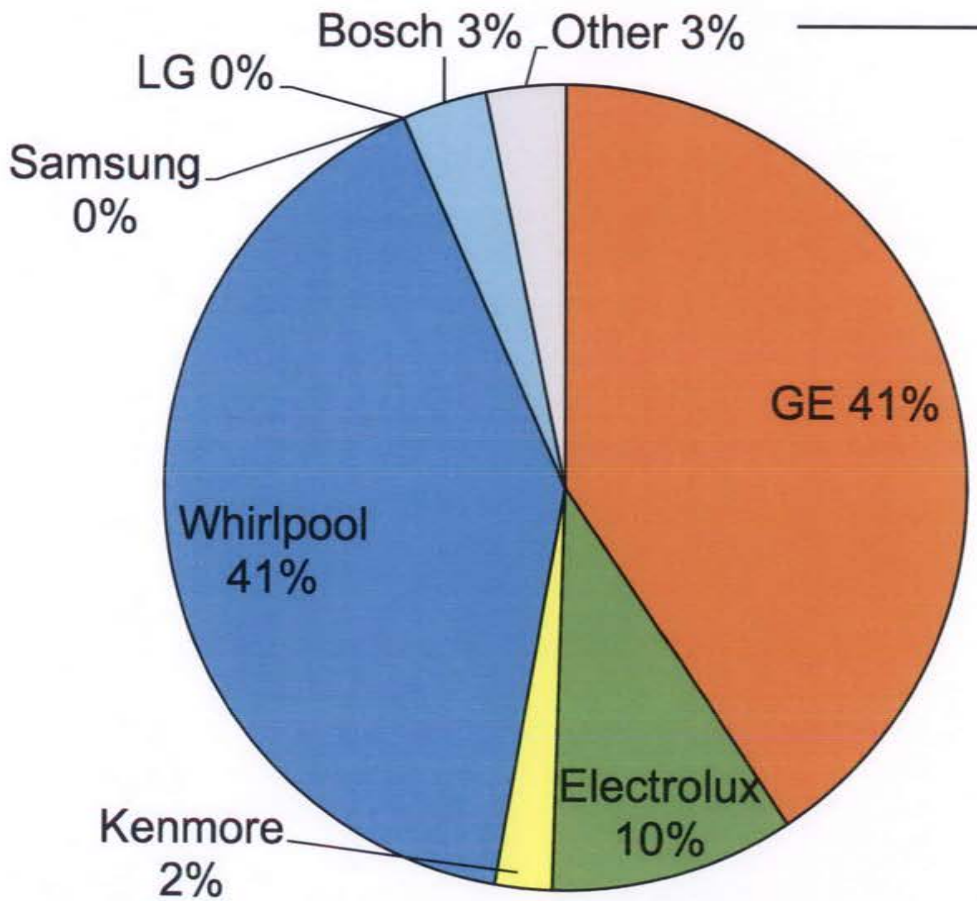
Shares: contract-channel markets

Pre-merger 2014 unit shares for cooktop sales



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- Dacor 0.3%
- Danby 0.0%
- Fisher & Paykel 0.1%
- Haier 0.0%
- Midea 0.0%
- Miele 0.6%
- Sub-Zero 1.6%
- Viking 0.6%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 35

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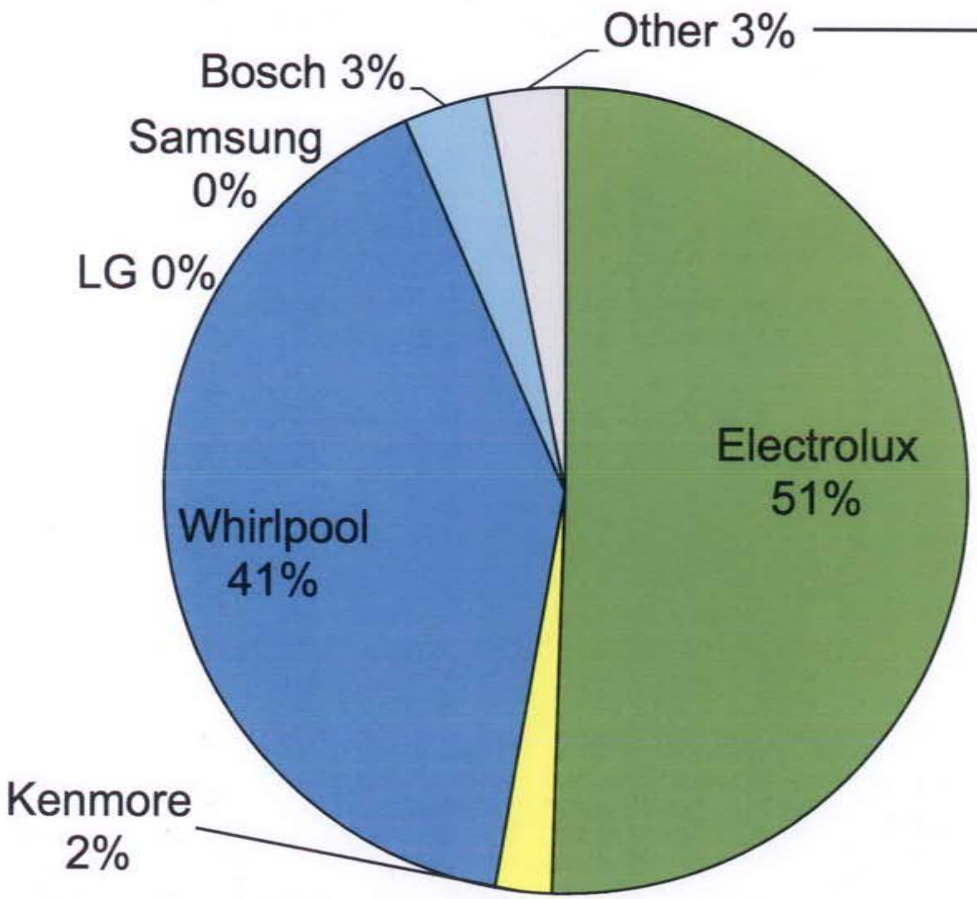
Shares: contract-channel markets

Post-merger 2014 unit shares for cooktop sales



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Shares: contract-channel markets

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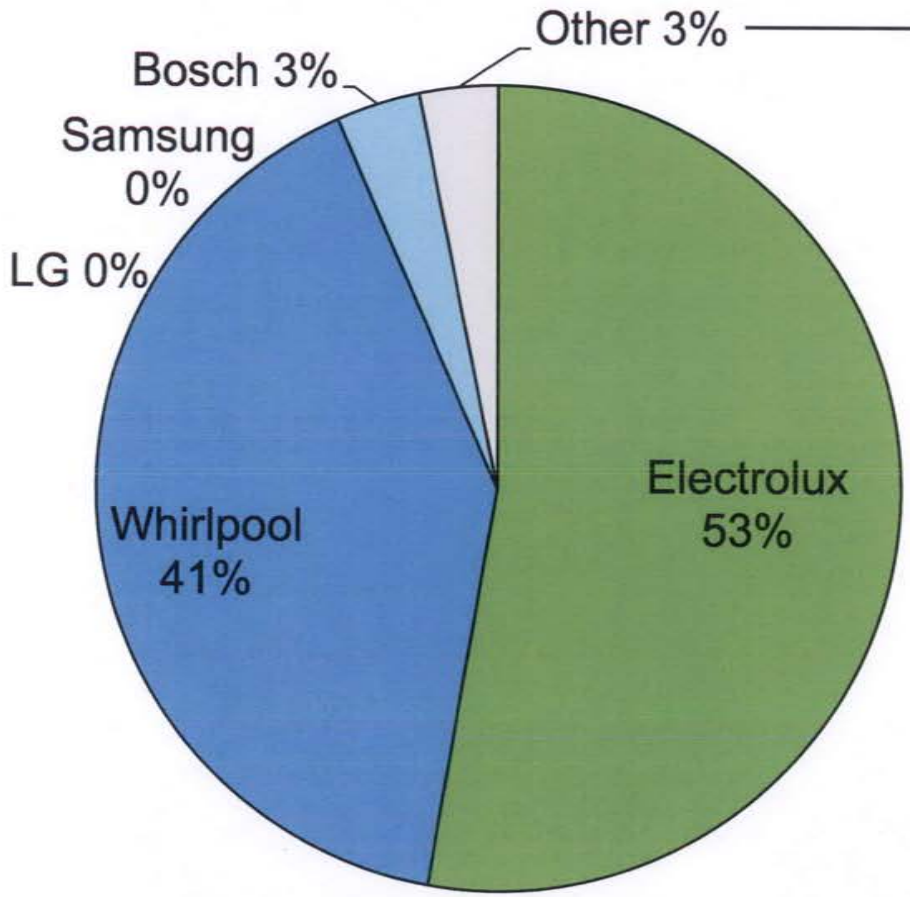

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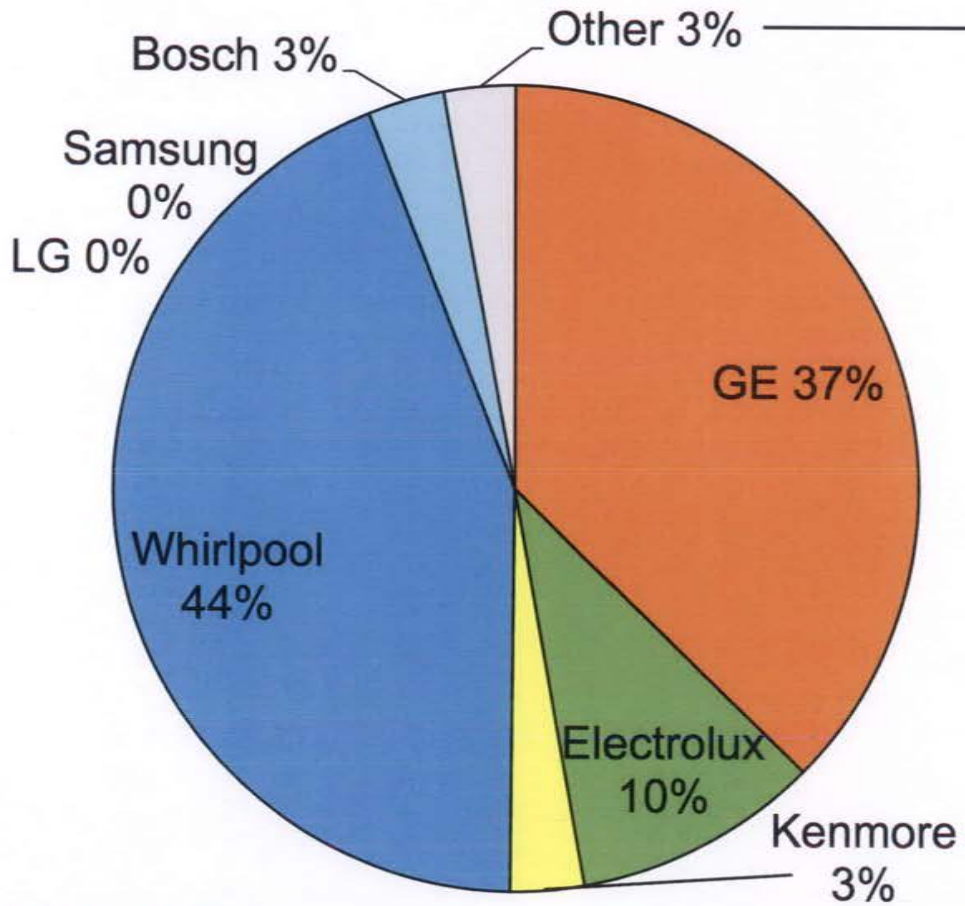
Shares: contract-channel markets

Pre-merger 2014 unit shares for wall oven sales



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PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 35

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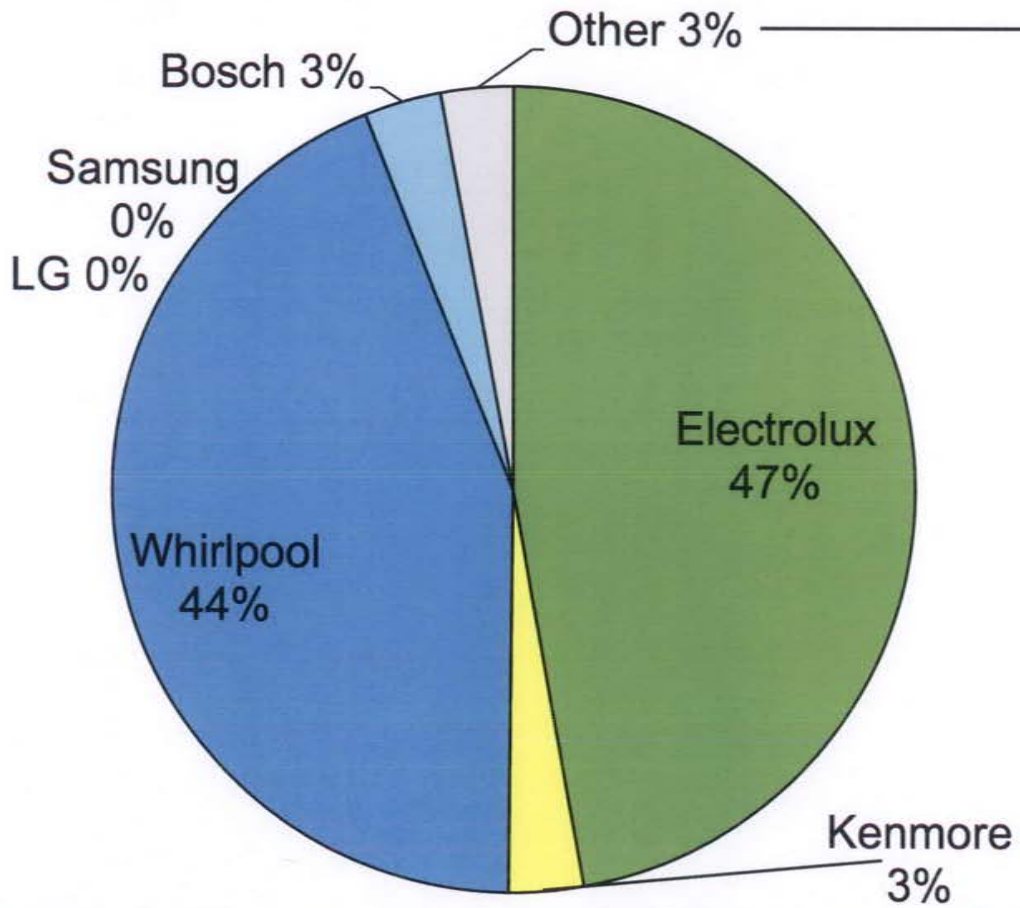
Shares: contract-channel markets

Post-merger 2014 unit shares for wall oven sales



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PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 35

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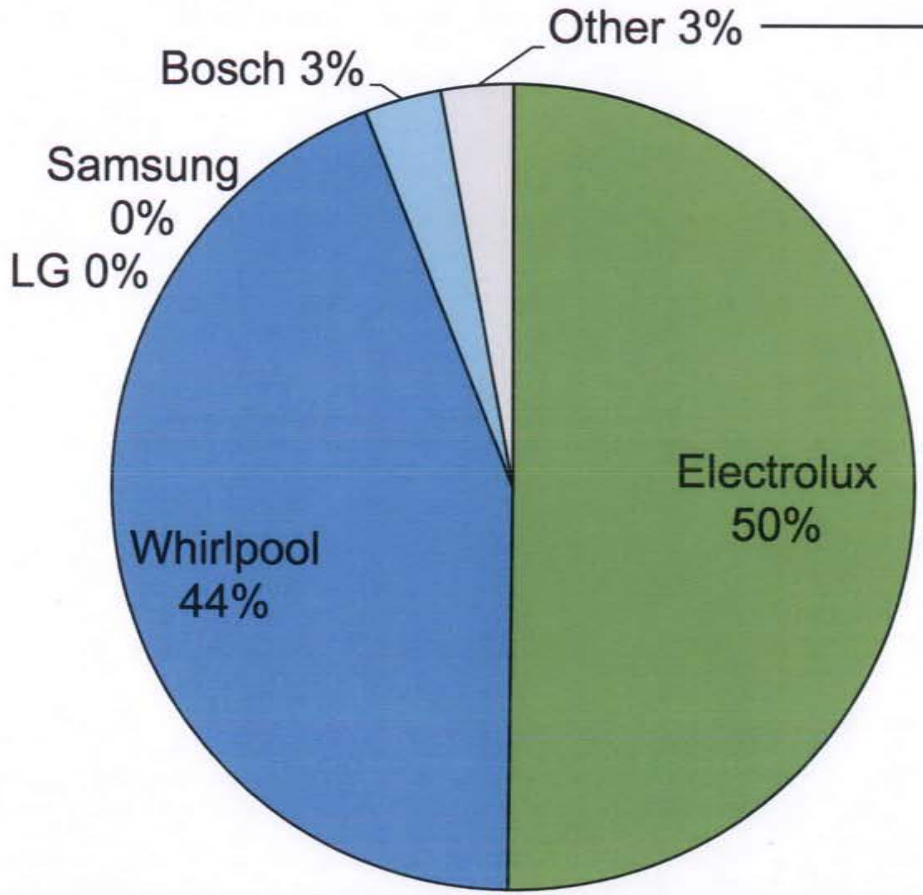
Shares: contract-channel markets

Post-merger 2014 unit shares for wall oven sales assigning Kenmore sales to Electrolux



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- Miele 1.0%
- Sub-Zero 1.3%
- Viking 0.3%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Figs. 35

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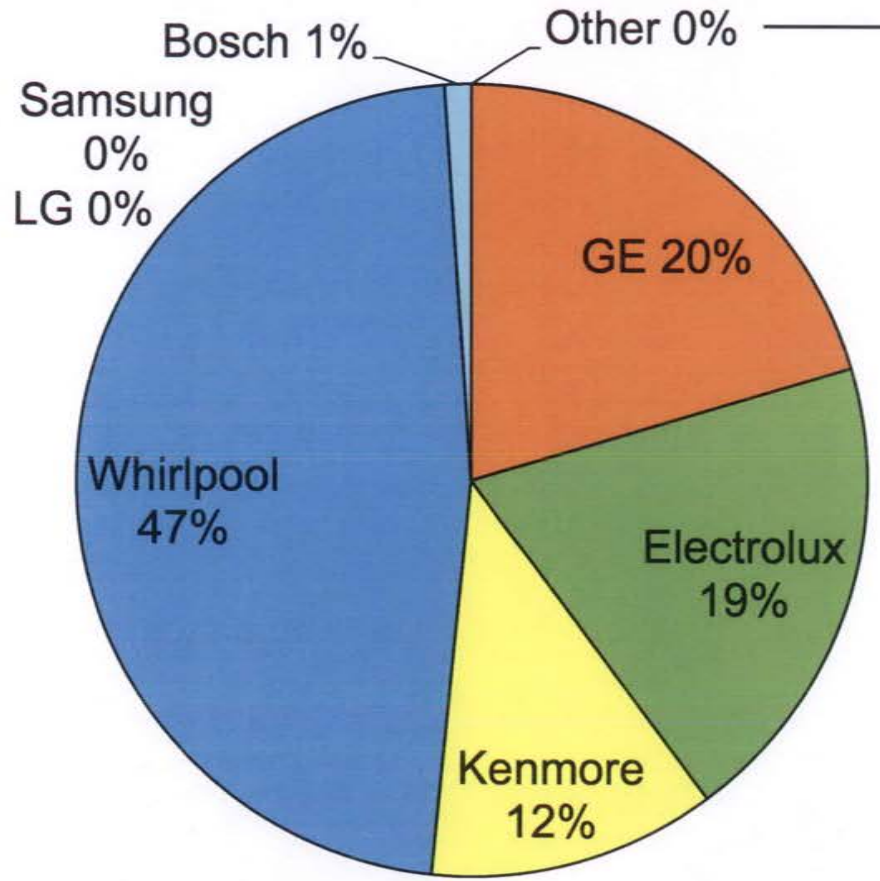
Why these measures understate the likelihood of competitive harm

2014 unit shares for cooktop sales in the bottom two quintiles (net wholesale prices below $392)



Other includes:
- Crosley 0.0%
- Dacor 0.0%
- Danby 0.0%
- Fisher & Paykel 0.0%
- Haier 0.0%
- Midea 0.0%
- Miele 0.0%
- Sub-Zero 0.0%
- Viking 0.0%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 39

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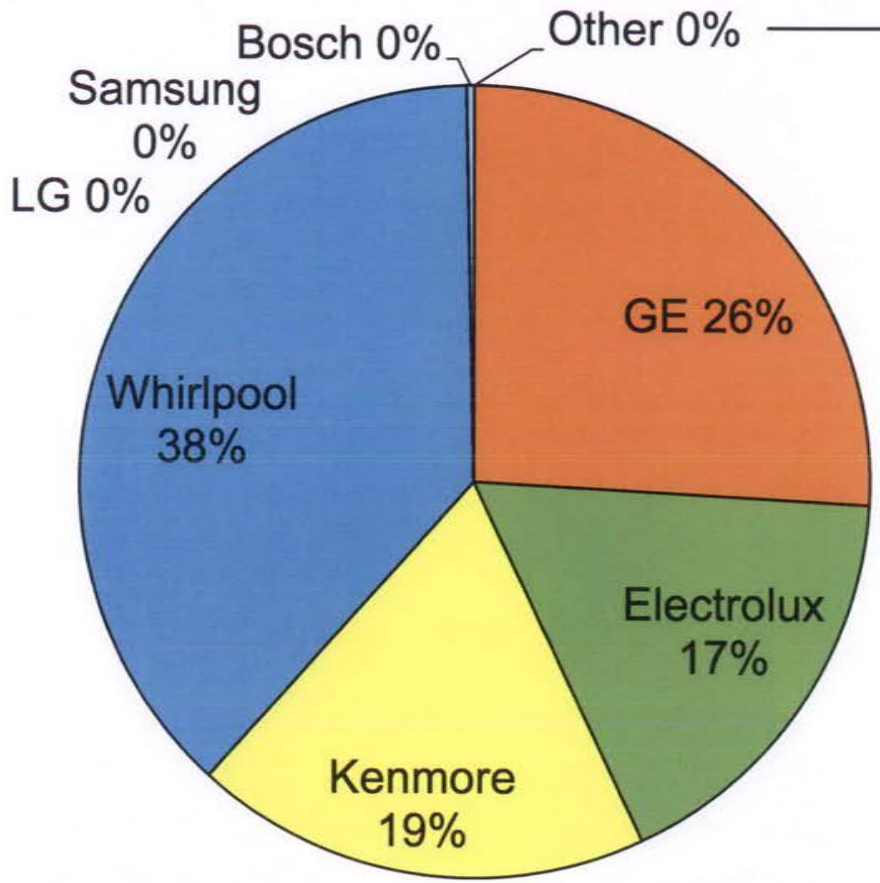
Why these measures understate the likelihood of competitive harm

2014 unit shares for wall oven sales in the bottom two quintiles (net wholesale prices below $873)



Other includes:
- Crosley 0.0%
- Dacor 0.0%
- Danby 0.0%
- Fisher & Paykel 0.0%
- Haier 0.0%
- Midea 0.0%
- Miele 0.0%
- Sub-Zero 0.0%
- Viking 0.0%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 39

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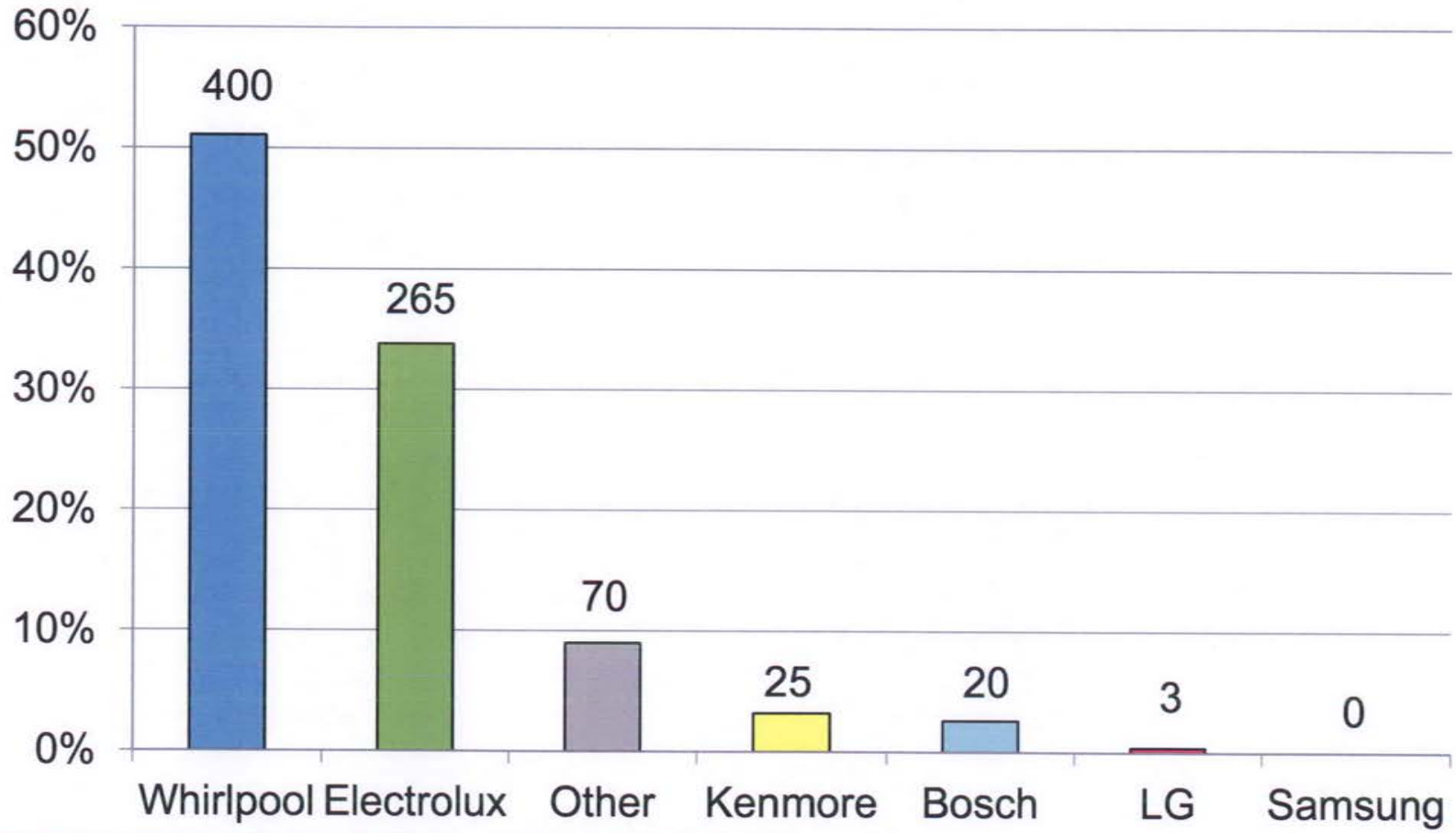
Competitive effects: direct evidence of competition that will be eliminated

Percentage of competitor mentions on final quotes in GE SmartQuote data for 2014 (cooktops)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 58

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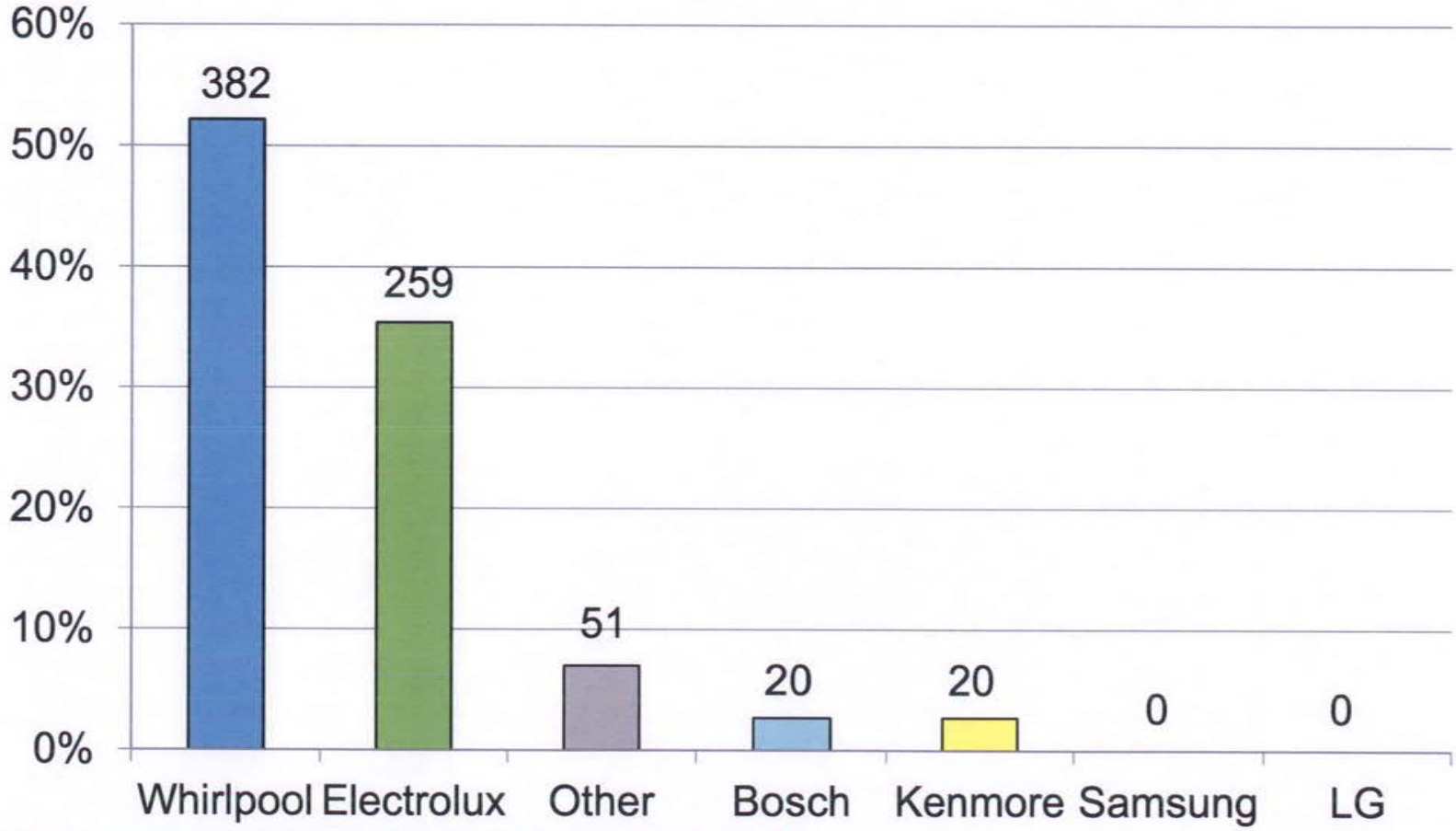
Competitive effects: direct evidence of competition that will be eliminated

Percentage of competitor mentions on final quotes in GE SmartQuote data for 2014 (wall ovens)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 57

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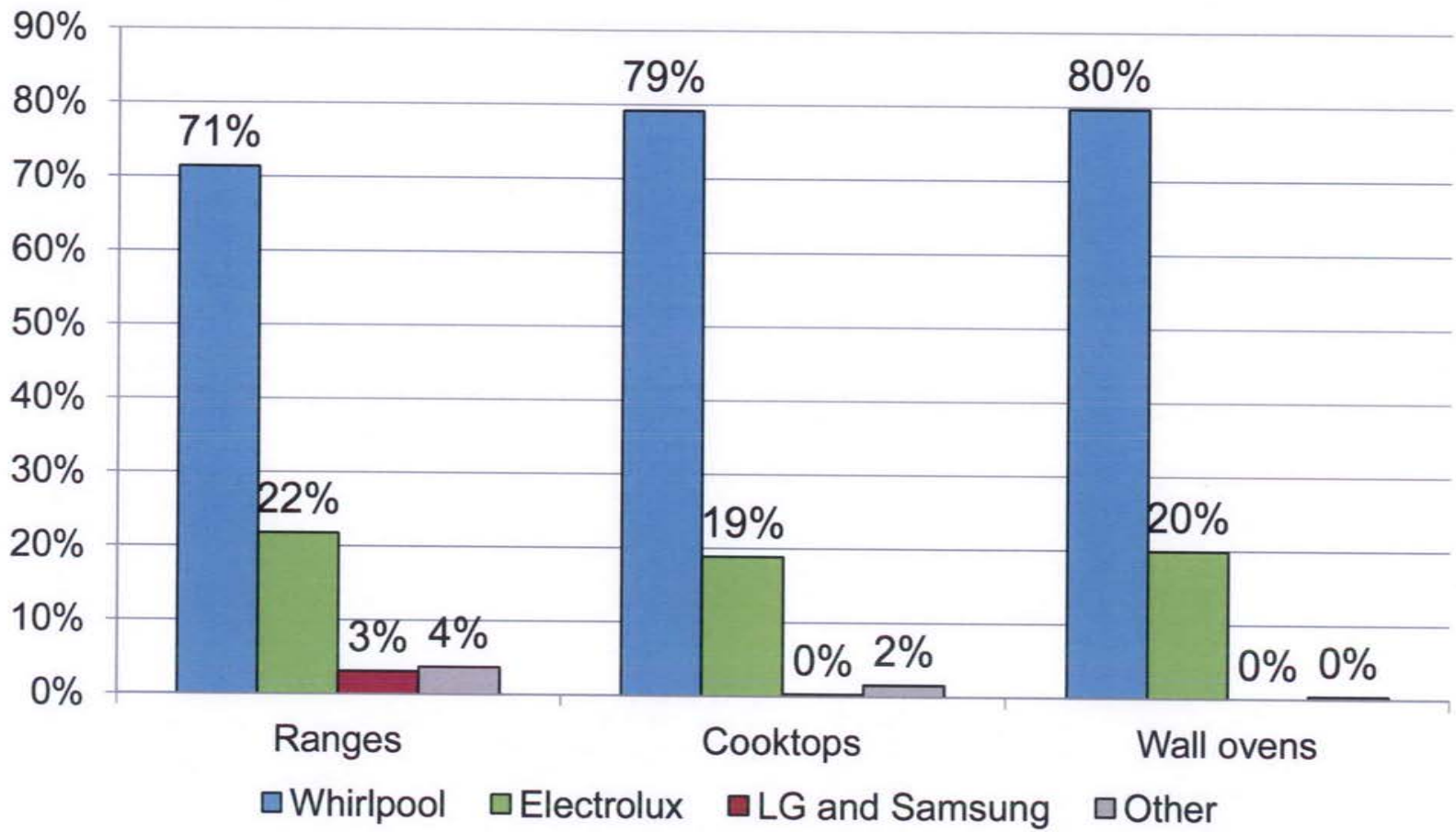
Competitive effects: direct evidence of competition that will be eliminated

Percentage of GE meet comp events in the retail channel for 2014



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 53

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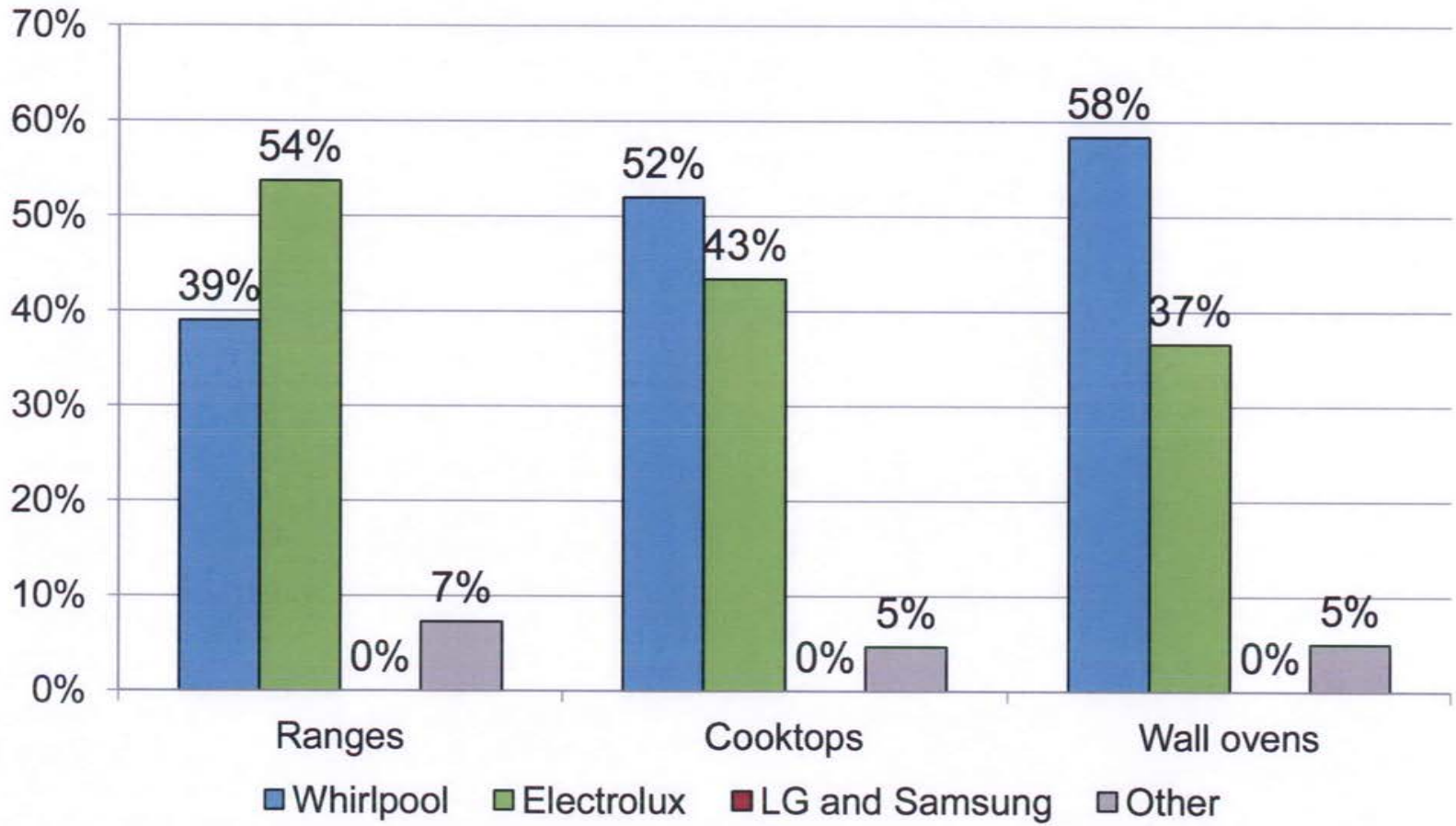
Competitive effects: direct evidence of competition that will be eliminated

Percentage of GE meet comp events in the indirect contract channel for 2014



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 54

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Appendix B

Additional figures

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Figure 16, initial report

Unit share of purchases by sales channel for cooktops, wall ovens, and ranges

	Retail	Contract
Cooktops	69%	31%
Wall ovens	67%	33%
Ranges	75%	25%
Total cooking	*74%*	*26%*

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 16

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Figure 52, initial report

UPP as a percentage of cost based on retail and indirect contract-channel unit sales

	Ranges	Cooktops	Wall ovens
Electrolux—retail	12.8%	41.7%	31.6%
GE—retail	14.2%	12.1%	19.3%
Electrolux—indirect contract	21.7%	42.2%	29.8%
GE—indirect contract	21.8%	15.0%	15.1%

PX02002 (Initial expert report of Michael D. Whinston, as revised in October 20, 2015 rebuttal expert report appendix), Fig. 52

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Figure 59, initial report

UPP for GE based on 2014 SmartQuote data for the contract channel

	Ranges	Cooktops	Wall ovens
GE—diversions based on share of mentions	21%	26%	25%
GE—diversions based on share of quantity	21%	20%	18%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 59

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Figure 55, initial report

UPP for GE based on GE meet comp events in the retail and indirect contract channels for 2014

	Ranges	Cooktops	Wall ovens
GE—retail	6.7%	11.1%	15.5%
GE—indirect contract	22.9%	31.2%	27.3%

PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 55

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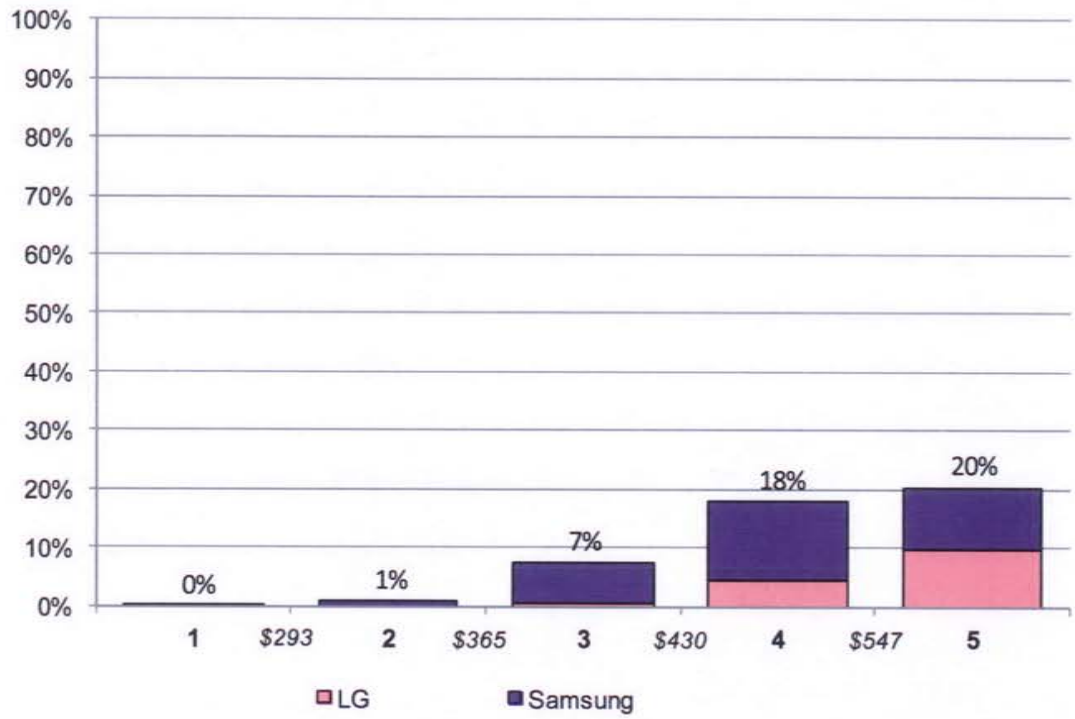
Figure 41, initial report

LG and Samsung unit share of overall range sales by wholesale price quintile in 2014 (based on sales of GE, Electrolux, Whirlpool, LG, and Samsung)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 41

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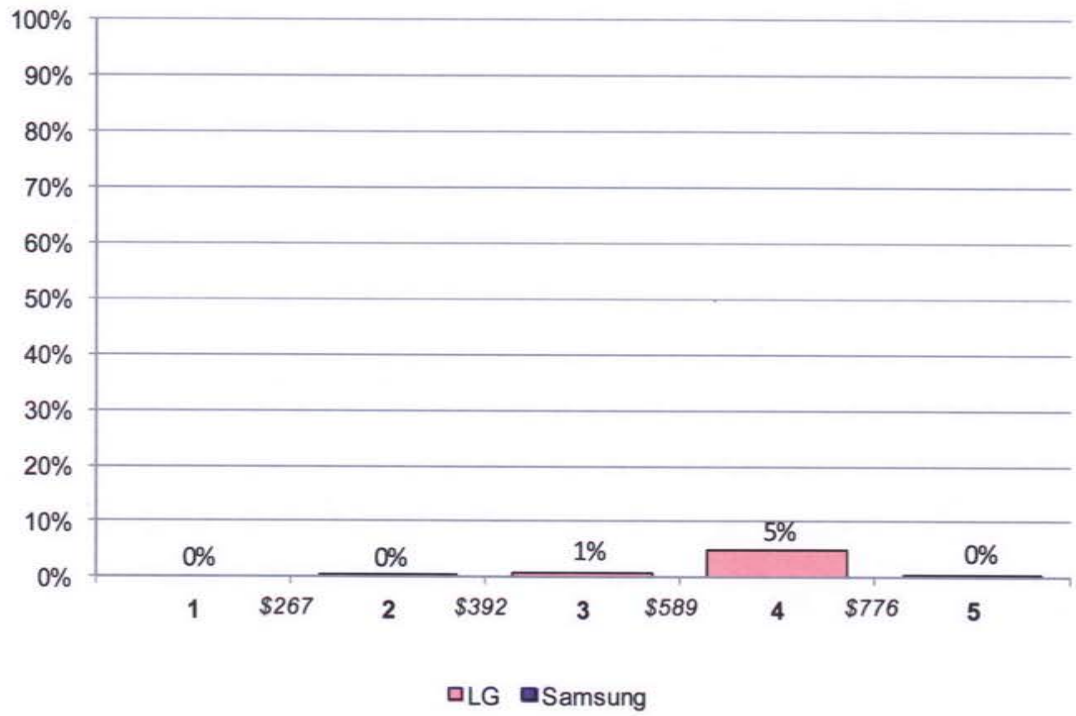
Figure 42, initial report

LG and Samsung unit share of overall cooktop sales by wholesale price quintile in 2014 (based on sales of GE, Electrolux, Whirlpool, LG, and Samsung)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 42

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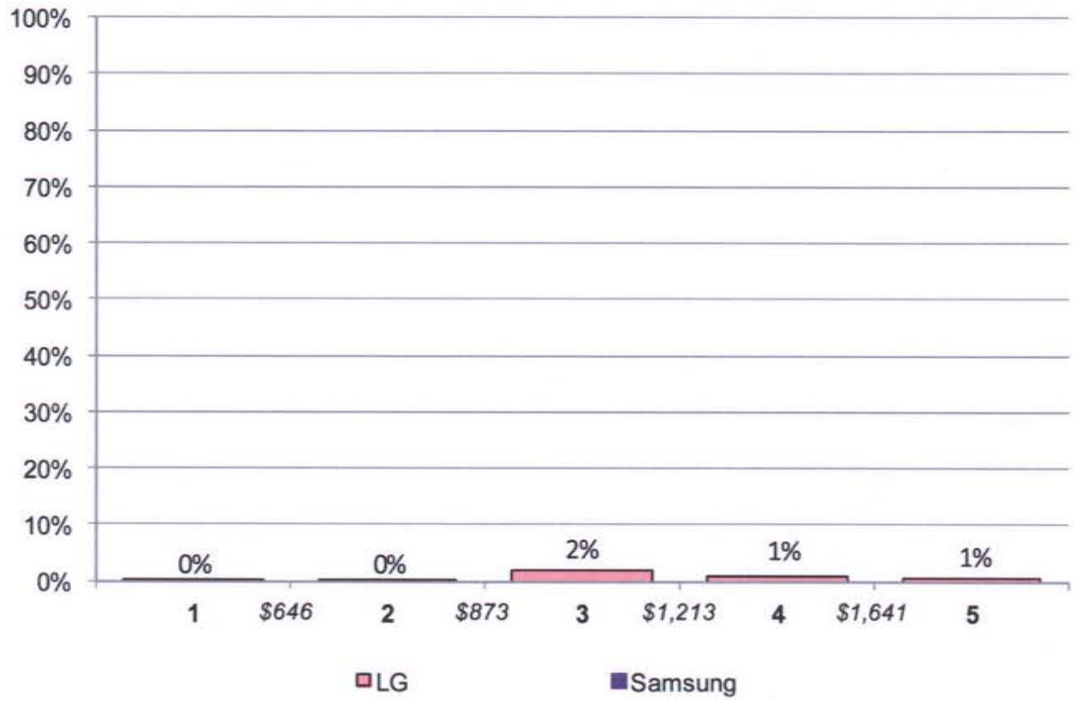
Figure 43, initial report

LG and Samsung unit share of wall oven sales by wholesale price quintile in 2014 (based on sales of GE, Electrolux, Whirlpool, LG, and Samsung)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 43

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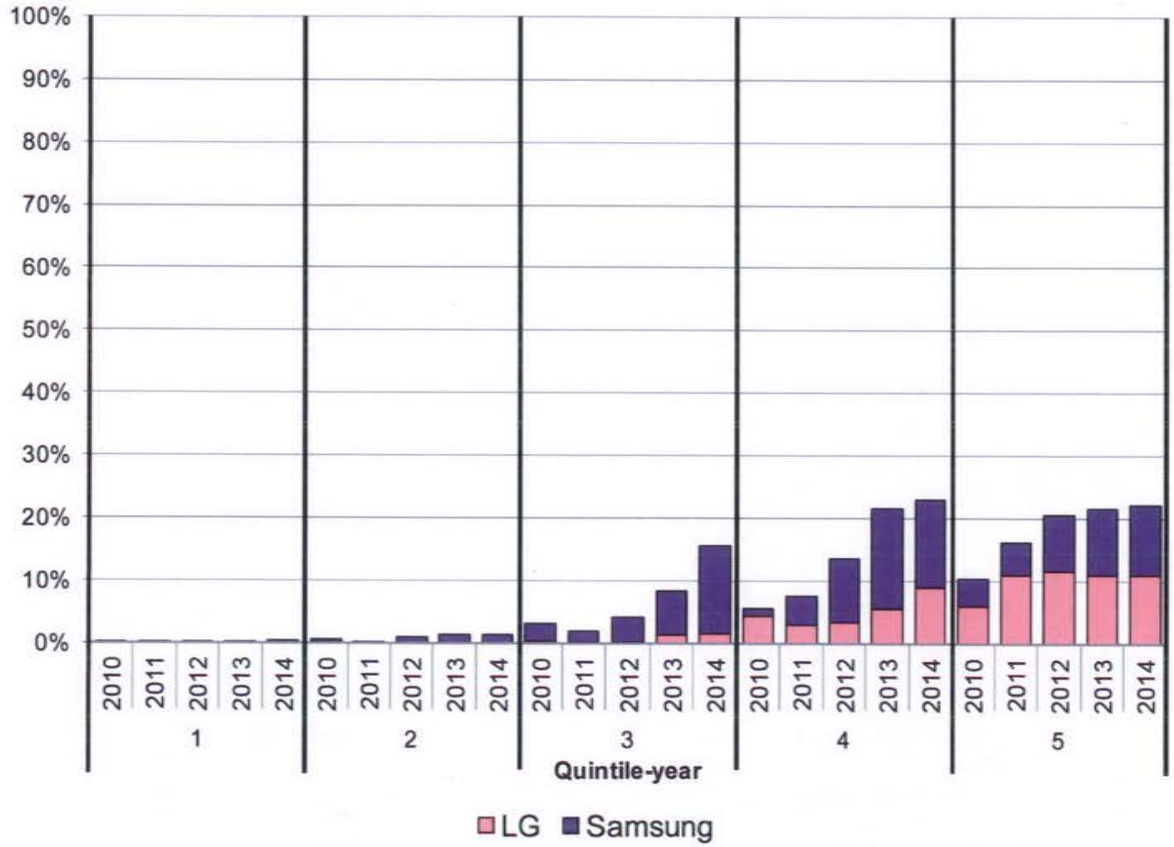
Figure 64, Initial Report

LG and Samsung unit share of retail range sales by wholesale price quintile 2010–2014 (based on sales of GE, Electrolux, Whirlpool, LG, and Samsung only)



PX02002 (Initial expert report of Michael D. Whinston, September 30, 2015), Fig. 64

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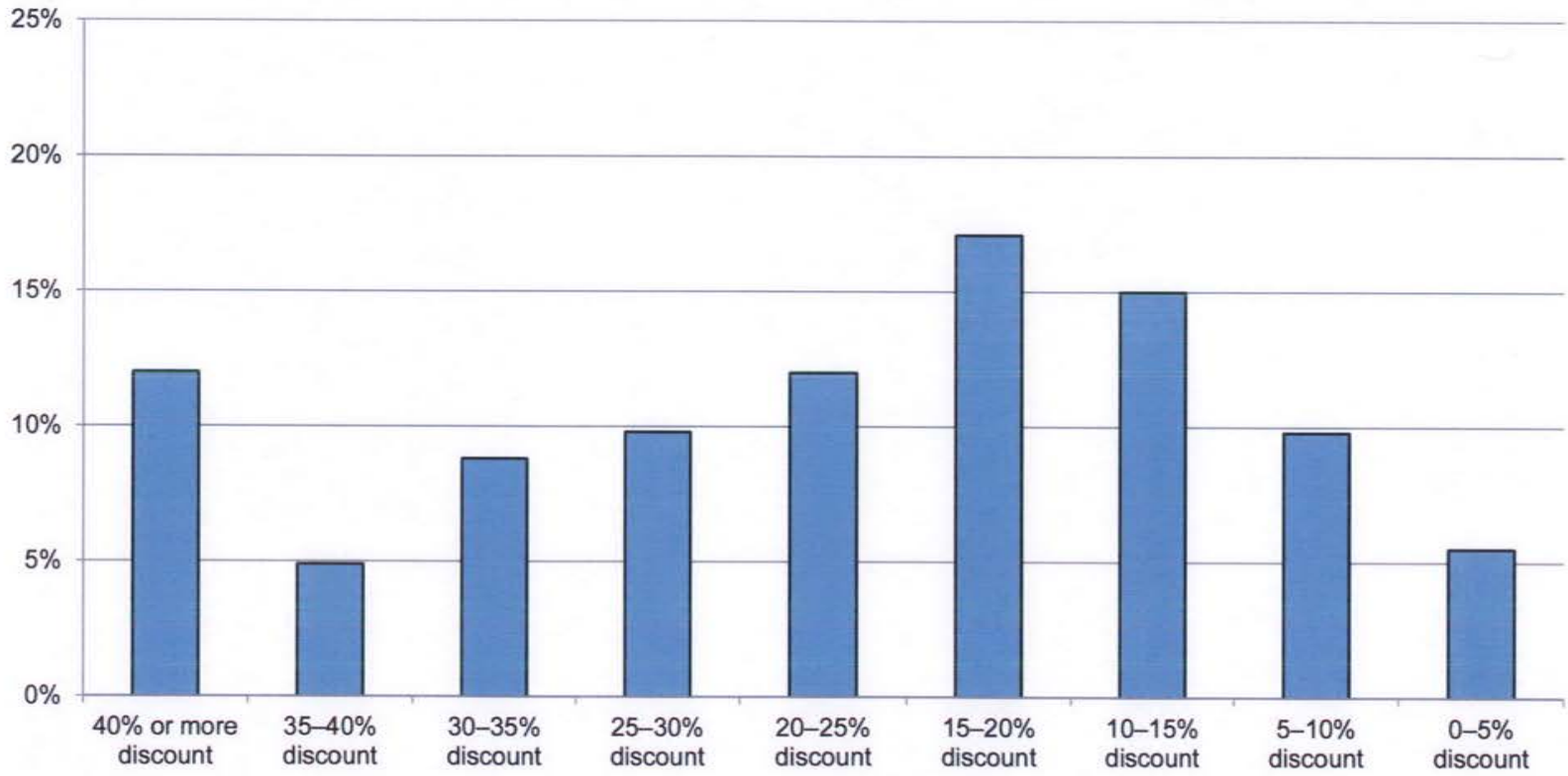
Contract-channel markets for ranges, cooktops, and wall ovens

Fraction of Electrolux direct contract-channel range sales for which the lowest average weekly retail price (Best Buy, Lowe's, or The Home Depot) in the same week exceeds the direct-contract price by various percentages (2014)



PX02004 (Supplemental expert report of Michael D. Whinston, November 7, 2015), Fig. 34

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GE-Electrolux merger analysis

Michael D. Whinston

November 23, 2015

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