



Retail Innovations in American Economic History

The Rise of Mass-Market Merchandisers

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Abstract

The American retail sector is undergoing a long-term structural shift away from small “mom-and-pop” stores and toward national chains. Retail establishments have gotten larger and more concentrated; the mass-market merchandisers of the later twentieth century continued a trend toward consolidation of the retail sector into national chains operating large stores that started before their widespread emergence. In the late twentieth century, Wal-Mart emerged as the world’s most important (and controversial) retailer. The evidence on Wal-Mart’s effects on retail employment suggests either mild positive or mild negative effects, but Wal-Mart’s effect on prices suggests increases in real income.

Introduction

Retail changed in the twentieth century as small, independent retailers gave way to national chains of massive general merchandise stores. In the late twentieth century, the retail sector was at the front of American economic change. This has been especially true of general merchandise retailers and Wal-Mart specifically. In the twentieth century, the U.S. economy shifted toward services and away from agriculture and manufacturing. The late twentieth century saw a continuing structural shift away from independent single-establishment retailers (“mom-and-pop” stores) and toward national discount chains operating large stores that deliver broad arrays of goods to multiple markets.²

Retail has surpassed manufacturing as the leading sector in American economic growth (Campbell 2009: 262), and the transition to a service economy has occurred in spite of the view that the service sector consists largely of low-productivity, low-wage, dead-end “McJobs” (Triplett and Bosworth 2004: 1). The rise of mass-market retailers illustrates an important point that has emerged in the literature on economic history and New Institutional Economics largely following Douglass C. North’s (1968) study of productivity changes in ocean shipping: technological improvements matter, but organizational changes, institutional changes, and market development might be more important. Information technology has increased retail productivity, but the rise of mass-market merchandisers is part of longer-run trends in retail explained by combinations of economies of scale and scope (Chandler 1977, 1990; Basker et al. 2010) and “economies of density” (Holmes 2011) that include “economies in advertising and in transactions” (Kim 1999: 95).

Any discussion of late twentieth century retail and the rise of mass-market merchandisers is

also inevitably a story about Wal-Mart Stores, Inc. Wal-Mart is no monopoly, but it dwarfs its competition and (again) appeared in the number one slot in the 2011 Fortune 500. Wal-Mart is famous for its use of computerized inventory tracking, extensive automation through its distribution network, and the Wal-Mart Satellite Network, which was completed in 1987 and is the largest private network in the U.S. (Wal-Mart Stores 2011). Technology has played a role, but mass-market merchandisers are the product of much more than scanners and satellites. Modern mass-market, discount merchandising is rooted in trends that predate World War II.

Retail and the Changing American Economy before World War II

Well before chains, mass merchandisers, department stores, and mail-order houses, consumers bought from small merchants dealing mostly in local goods. Peddlers wandered the countryside hawking their wares, and small, independent retailers distributed limited selections (Vance and Scott 1994: 16-17). After the Civil War, there were three major retailing innovations: department stores, chain stores, and mail order houses (Vance and Scott 1994: 17-21). Department stores offered an early form of one-stop shopping with posted prices, no haggling, generous return policies, and various amenities (Vance and Scott 1994: 18). Aided in part by cheap or free rural postal service, mail-order houses brought a cornucopia of new goods to rural customers (Vedder and Cox 2006: 38, Chandler 1977: 233). Chains emerged for several reasons and would draw major political fire in the early twentieth century.

The economic rationales for chain stores are straightforward.³ First, falling transportation costs make it easier to manage several stores over a broader area. Second, an increasingly-mobile population increases the value of a credible brand name (Kim 1999, 2001). Third, chain stores allow an organization with several outlets

to spread risk across a geographically diversified portfolio of outlets. The first national retail chain was the Great Atlantic and Pacific Tea Company (A&P), which had been founded in 1859 as Gilman and Hartford's in New York City (Hicks 2007: 7). Its operations were still confined to New York City by 1865, but it had a footprint that stretched from Norfolk, Virginia to St. Paul, Minnesota by 1880 and a coast-to-coast presence by 1900 (Chandler 1977: 234). By 1930, A&P had 15,500 locations (Hicks 2007: 8), and chain stores "accounted for almost 40 percent of retail grocery sales" (Ross 1986: 125).

Improvements in transportation infrastructure made layers of middlemen redundant, and population growth encouraged specialization throughout the supply chain (Vance and Scott 1994: 16-17). Population mobility increased the value of a credible brand name (Kim 1999, 2001). The development of the automobile and home-based refrigeration as well as innovations at the store level like self-service and the cash-and-carry model lowered prices (Neumann 2011: 4). In response to pressure from innovative supermarkets, firms like A&P and Kroger "closed many of their small clerk-service stores and replaced them with fewer—but much larger—stores, which were located on major thoroughfares for the convenience of automobile drivers" (Vance and Scott 1994: 22).

A recurring theme in the history of retail trade is the conviction that consumers' demand curves for many goods are highly elastic. This leads to innovations along the supply chain that allow firms to earn profits by selling high volumes at very low profit margins. This was evident in the nineteenth century just as it was in the late twentieth (Chandler 1977: 227). Competition and innovation in retail and wholesale lowered the costs of transporting goods and transmitting information; it also

increased the quality both of the goods on offer and the price information to which people across the supply chain responded (Chandler 1977: 209-210, 215-219).

Retail also evolved in response to changing transaction costs. Chandler (1990: 29) writes that both "wholesalers and retailers were organized specifically to exploit the economies of scale and scope," but Kim (1999, 2001) argues that multi-unit firms developed in response to transaction costs associated with larger markets. Small single-unit manufacturers and small single-unit retailers had created a market for wholesalers, for example, because arranging trades between small retailers and small manufacturers would have been prohibitively costly without the coordinating actions of middlemen (Kim 2001). Increasing urbanization and larger markets replaced repeated interactions between small retailers and the consumers they served with more anonymous trade. This made advertising and branding advantageous sources of credible commitment, which encouraged the rise of multi-unit firms (Kim 1999: 95, 97; 2001). Brand names developed as market signals that reduced asymmetric information problems, and retailers had incentives to integrate backward into the manufacture of private-label brands because this better aligned incentives along all parts of the supply chain—particularly between those who did the manufacturing and those who did the selling (Kim 1999:97; 2001). In 1929, small chains purchased less directly from manufacturers than did large firms (Kim 2001: 316). Legal innovations also mattered as 1905 legislation protected trademarks and therefore made them clearer signals of quality (Kim 2001: 310-311).

Retail competition has always been a contentious political and social issue. Some viewed the chains as a type of colonization of the South, Midwest, and West by northeastern business interests (Schragger 2005: 117).

Opposition became so bad that Sears, Roebuck would ship wares in unmarked wrappers to pacify customers fearing social sanction (Ryant 1973: 208). Moussalli and Flesher (2002) record how Mississippi used sales taxes and licensing regulations to punish competitors for in-state retailers. Many states passed laws aimed at restricting competition from chain stores; Moussalli and Flesher (2002: 1202) write that Mississippi's 1930 chain store tax was enacted "to hobble the chains, not collect revenue." Ross (1986: 127, 136) points out that state anti-chain laws burdened grocery chains in particular and reduced competition.

The political economy of the political war on chains is straightforward. Firms used governments at various levels to protect them from competition, but this was also undergirded by a "producerist" ideology (Schragger 2005: 10, Hicks 2007: 17). With the exigencies of the war, the development of a Washington DC lobbying organization (the American Retail Federation), a new source of support in labor unions who had just signed "a series of collective bargaining agreements with A&P" (Lebhar 1963: 192-193, Ross 1986: 127), and another new source of support in farmers who came to accept chains when they saw that chains "helped dispose of a number of bumper crops without depressing prices" (Ross 1986: 127), the war on chains ultimately ended. This worked to the long-run benefit of American consumers and set the stage for the retailing innovations and trends of the post-World War II era.

Retail and the Changing American Economy since World War II

After World War II, the population grew substantially, but the number of retailers and the number of retail establishments grew more slowly than population (Jarmin et al. 2009: 239). The number of single-location retailers fell between the late 1950s and the late 1990s,

"the number of chain store locations more than double[d]," and chain store employment passed employment in single-unit firms in 1977 (Jarmin et al. 2009: 239-240, 249). Pre-war farmers had warmed to chain stores because of their ability to move product, and manufacturers warmed to the discount store for the same reason (Vance and Scott 1994: 25). As Hicks (2007: 12) writes, "(c)onsumers today buy more goods and services than their grandparents but spend a declining share of their income on retail goods." The retail share of total personal income declined gently between 1929 and the end of the twentieth century before the transition from SIC to NAICS altered the way retail is defined (Hicks 2007: 12), and retail trade sales stayed roughly constant at 8% of national income between 1960 and 2004 (Vedder and Cox 2006: 48).⁴

Vance and Scott (1994: 24) call discount merchandising "(t)he most important retailing development of the post-World War II era." The trend has been away from small, single-unit retailers and toward chain stores operating larger establishments, and the discount retail sector has gotten more concentrated over time (Jia 2008: 1268). The modern discount store did not spring fully formed from the mind of Sam Walton. Discounting "emerged from the fringe of American retailing" in the 1950s (Vance and Scott 1994: 24-25), and Walton borrowed liberally from other innovators like Martin Chase, Sol Price, and Harry Cunningham. Chase's Ann & Hope store was successful because of "a reputation for integrity and a liberal return policy" (Vedder and Cox 2006: 49). Price founded Fed-Mart and Price Club, which later became part of Costco (Vedder and Cox 2006: 49). Cunningham fundamentally changed S.S. Kresge during his tenure as CEO; he opened the first Kmart in 1962 (Vedder and Cox 2006: 49). Rising incomes among people who had typically been poor also worked to the

advantage of discounters because many of these who now had more money were not used to and were not willing to pay for department store amenities and service (Vance and Scott 1994: 25).

Through the 1960s, established firms and other upstarts experimented with discounting. Kmart, for example, opened 100,000 square foot stores in suburban locations with the specific goal of “surround(ing) a city” and standardized its store layouts in the late 1960s (Vance and Scott 1994: 31-32). Woolworth’s Woolco stores were even larger, with 115,000-180,000 square feet, and J.C. Penney’s 180,000 square foot Treasure Island stores combined discount operations with supermarkets (Vance and Scott 1994: 32-33). Target started in Minneapolis and “specialized in relatively high-quality, higher-price merchandise” (Vance and Scott 1994: 33). Minneapolis-based Gamble-Skogmo opened 20,000-40,000 square foot Tempo Discount Center stores in small towns, and both Woolworth and Fed-Mart experimented with smaller stores in smaller cities and towns (Vance and Scott 1994: 34).

Changes in the structure of the retail sector—which included eating and drinking establishments in addition to stores before the switch from SIC to NAICS—in the late twentieth century have been examined in detail by Foster et al. (2006) and Jarmin et al. (2009). Foster et al. (2006: 748) attribute 14% labor productivity growth in the retail trade sector over the 1990s to entry by larger, more-efficient establishments and exit by smaller, less-efficient establishments rather than across-the-board increases in productivity at all establishments. In particular, they argue that entry by high-productivity establishments that are part of national chains and exit by low-productivity single-unit establishments drove retail labor productivity gains in the 1990s (Foster et al. 2006: 749). Citing the findings of Doms et al.

(2004), Jarmin et al. (2009: 242) make two observations about information technology investments in retail. First, “large firms account for nearly all the investment in IT in the retail sector.” Second, “IT improves the productivity of large firms more than it does for small firms.”

The trend across the entire retail sector has been away from small mom-and-pop businesses and toward local, regional, and national chains. Jarmin et al. (2009: 240) note that in 1963, the percentage of retail establishments operated by chains was 20.2% while it was 35% in 2000. Within the general merchandise sector, independent retailers are “disappearing from many markets” (Jarmin et al. 2009: 260-261). Jarmin et al. (2009: 237-238) argue specifically that “the rise of technologically sophisticated national retail chains like Wal-Mart, Toys-R-Us, and Home Depot is simply part of the larger trend—underway for some time—towards larger scale retail firms” (Jarmin et al. 2009: 238).⁵

Using Census Bureau *Enterprise Statistics* and *Company Statistics* data, Kim (1999:80) points out that in 1958, multi-unit retailers accounted for 2.8% of firms, 10.8% of establishments, and 40.2% of employees in their sector. These percentages increased to 6%, 32.3%, and 58.8% respectively in 1987 (Kim 1999: 80). In the general merchandise sector, multi-unit retailers accounted for 2.2% of firms, 14.4% of establishments, and 80.3% of employees in 1958; these percentages increased to 7.6%, 78.6%, and 97.3% respectively in 1987 (Kim 1999: 80).

Since 1977, general merchandisers have grown more rapidly than more specialized retailers; further, the general merchandisers adding the most stores also had larger increases in their selection (Basker et al. 2010). Specifically, they offer broader arrays of goods rather than deeper selections within categories (Basker et al. 2010). Basker et al. (2010: 7) report that the percentage of general-

merchandise stores with floor space in excess of 50,000 square feet increased from 53.7% in 1977 to 61.5% in 2007. In the discount sector specifically, the trend has been toward consolidation into national chains. According to Jia (2008: 1268), 49.3% of discount stores representing 41.4% of sales were operated by the 39 largest discount chains in 1977 while “the top 30 chains controlled about 94% of total stores and sales” twenty years later, in 1997. In the General Merchandise sector, the number of county markets served by single-unit firms, local chains, and regional chains decreased between 1977 and 2000 while it increased for national chains (Jarmin et al. 2009: 256).

Technology mattered, but it was not a magic bullet. Holmes (2001: 709) argues that the use of bar codes meant more deliveries, more precision in inventory management, and larger stores. Basker (2011) argues that while the adoption of barcode scanners led to a 4.5% productivity increase for firms that installed them by 1982, these productivity increases were largely offset by setup costs. Market conditions and complementary technologies also matter. Lagakos (2009), for example, argues that cars increase observed retail productivity. What matters is not the technology *per se*, but how it is deployed. Lewis (2004: 95) points out that the productivity increase was accompanied by retailers and wholesalers adopting information technology that had been in use for decades.

Economies of scale, economies of scope, and economies of density have combined to transform the retail sector. Kim (1999: 95) attributes the rise of multi-unit firms to “economies in advertising and transactions,” and Holmes (2011) argues that Wal-Marts located near one another and near distribution centers present the company with an ultimately-favorable tradeoff between cost-reducing economies of density and possible sales cannibalization by closely-located stores. The

distinguishing fact about general merchandisers is the interaction between cost-lowering factors like trade liberalization, organizational changes, and better information technology and a demand-pull from consumers’ preferences for one-stop shopping (Basker et al. 2010: 27). The Wal-Mart effect might run even deeper: in a study of DVD sales, Chiou (2009: 306ff) argues that the average shopper would still prefer Wal-Mart even holding distance, price, and one-stop shopping convenience constant.

Wal-Mart

Wal-Mart’s size alone warrants studying its effects.

—Emek Basker

A growing body of literature considers Wal-Mart, the iconic and ubiquitous “face of twenty-first-century-capitalism,” to borrow from the title of Lichtenstein (2006). The company’s reach is considerable. Basker (2007:178) points out that

By the end of 2005, 46 percent of Americans lived within five miles of the nearest Wal-Mart or Sam’s Club store, and 88 percent lived within 15 miles of the nearest store; and Wal-Mart accounted for nearly 9 percent of all retail workers in the United States. Because the chain has a presence in so many markets, virtually all other retailers compete head-to-head with Wal-Mart: 67 percent of all retail stores in the United States are located within five miles of a Wal-Mart.

The newness of this literature is evident in the fact that so many of the papers are of relatively recent vintage. Approximately 1/3 of the papers cited by Basker (2007) were working papers, as were many of the studies cited in books by Hicks (2007) and Vedder and Cox (2006). Wal-Mart passed Kmart in 1991 to become the country’s largest retailer (Jia 2008: 1269), and it has held the top position in the Fortune 500

eight times between 2002 and 2011. Its first appearance in the top spot, in 2002, was the first time a service firm had held the position (Lewis 2004: 92), and the 2011 Forbes 400 list of the richest Americans included four Wal-Mart fortunes in its top ten. In 1987, Wal-Mart had a 44% productivity advantage over other general merchandisers; this increased to 48% in 1995 as Wal-Mart tripled its market share (Lewis 2004: 92-93). According to Lewis (2004: 91), competitors faced a stark choice: either catch up with Wal-Mart, or go out of business. Wal-Mart became the largest corporation in the United States by building an organization that moves massive quantities of merchandise at razor-thin profit margins that have hovered between three and four percent for most of the company's history, as indicated by Figure 1

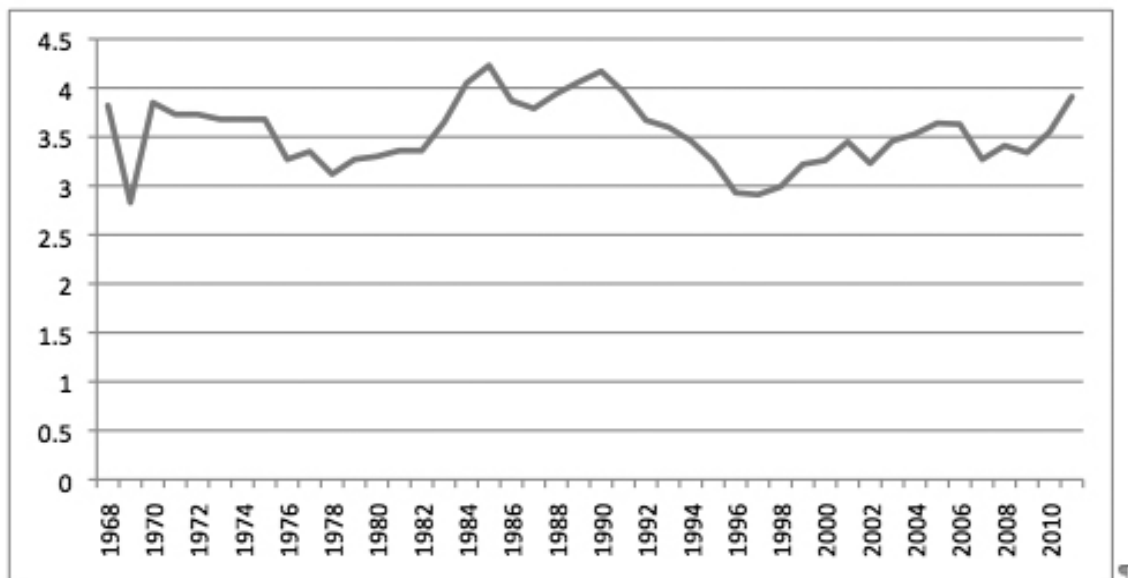
The Wal-Mart controversy stems from the company's effects on employment opportunities, incomes, and incumbent businesses. Estimates of the employment effect vary: Basker (2005a) argues that the long-run effect of Wal-Mart entry on a county labor market is a net increase of fifty retail jobs that is offset by a reduction

of some twenty wholesale jobs. Neumark et al. (2008), by contrast, estimate that each new job at Wal-Mart displaces 1.4 retail jobs that would have otherwise emerged in Wal-Mart's absence. In aggregate, this is a small effect on retail employment: Neumark et al. (2008: 428) point out that their estimate implies that the increase in retail employment between 1961 and 2004 would have been 279 percent rather than 271 percent in Wal-Mart's absence.

Their estimate of a negative effect on retail employment notwithstanding, Neumark et al. (2008: 428) "suspect that there are not aggregate employment effects, at least in the longer run, as labor shifts to other uses." Their suspicion is consistent with the findings of Sobel and Dean (2008), who explore the relationship between Wal-Mart expansion and small business at the state level and find that Wal-Mart does not affect "the overall size, growth, or profitability of the U.S. small business sector" (Sobel and Dean 2008: 691).

Entry by Wal-Mart and other Big Box retailers has unwelcome implications for competitors. Haltiwanger et al. (2010)

Figure 1. Wal-Mart Profit Margins, Fiscal Years 1968–2011.



Sources: Vedder and Cox (2006:55, 57, 59, 61) and Wal-Mart annual reports.⁶

estimate negative effects of Big Box retailers on employment at smaller businesses in the same narrowly-defined sector and in close geographic proximity in the Washington, DC area, are largely due to market exit by competing establishments. Basker (2005a:180) estimates that four small establishments (defined as establishments with 0-20 employees) close within five years of Wal-Mart's entry, and 0.7 medium establishments (20-99 employees) close in the second year after Wal-Mart enters a market. Sobel and Dean (2008) argue that the process of "creative destruction" might work at a more aggregated level than the county. Using state-level data, they find no statistically significant effect of Wal-Mart penetration on several measures of the small business sector, specifically the self-employment rate, the number of establishments with 1-4 employees normalized by population, the number of establishments with 5-9 employees normalized by population, growth rates in self-employment and the number of small establishments, and small business bankruptcy rates. Jia (2008: 1307) attributes "37-55% of the net change in the number of small discount stores and 34-41% of the net change in the number of all discount stores" to Wal-Mart's expansion between 1987 and 1997.

A 2005 Global Insight study commissioned by Wal-Mart and overseen by an independent panel suggested that a new Wal-Mart would create, on net, 137 jobs in the short term and 97 jobs in the long term (Global Insight 2005: 2). Studying Pennsylvania counties, Hicks (2005, discussed by Vedder and Cox 2006: 110) found that the company led to a net increase of fifty new jobs with a 40% reduction in job turnover. Hicks (2007: 93-94) uses data from Indiana to estimate that Wal-Mart increases rural retail employment from 3.4% to 4.8% after correcting for endogeneity. After correcting for endogeneity of urban Wal-Mart entry, Hicks argues that Wal-

Mart leads to a 1.2% increase in employment but points out that this estimate is statistically insignificant.

Basker (2007) estimates that between 1982 and 2002, sales per worker grew by 35.3% while sales per worker at Wal-Mart grew by 54.5%; subtracting Wal-Mart would cut growth in sales per worker in general retailing between 1982 to 2002 to 18.5% (Basker 2007: 182-183). In short, Wal-Mart accounts for just less than half of general merchandise productivity growth between 1982 and 2002 (Basker 2007: 182). Using data from the Bureau of Labor Statistics, Vedder and Cox (2006: 134) report that average annual productivity growth within the retail sector between 1987 and 2004 breaks down as follows: 0.2% among grocery stores, 1.3% among department stores, 2.3% among gas stations, 2.8% among auto dealers, and 7.6% among Big Box retailers.

Other firms and sectors grew in part by adopting Wal-Mart's best practices like the "Big Box" retail format, the company's policy of "Every Day Low Prices," and managerial innovations throughout the corporate hierarchy (McKinsey 2001). Retailers and wholesalers that have increased their productivity have done so in large part by imitating Wal-Mart's best practices (McKinsey 2001). One of Target's top officials, for example, claimed that his company is "the world's premier student of Wal-Mart" (McKinsey 2001: 11, quoted in Basker 2007: 191). The McKinsey Global Institute reported that wholesale trade was still labor-intensive throughout the 1990s; only 25 percent of warehouse operations were automated as late as 2001 (McKinsey 2001).

Wal-Mart's most obvious effect on the retail sector comes through its policy of Every Day Low Prices. Basker (2005b) and Basker and Noel (2009) estimate that Wal-Mart has a substantial price advantage over competitors with the effect being that prices

among incumbent competitors fall after Wal-Mart entry. Hausman and Leibtag (2007: 1147) argue that the compensating variation from Big Box retailers' effect on prices leads to welfare increases of some 25% of total food expenditure for people who enjoy the direct and indirect effects of Big Box stores. Further, they argue (Hausman and Leibtag 2009) that the Consumer Price Index is over-estimated because it fails to account properly for price effects of supercenters, mass merchandisers, and club stores. Evaluating estimates of the price effects of Big Box retailers and adjusting for foreign sales, Vedder and Cox (2006: 18-19) argue that "the annual American-derived welfare gains are probably still in excess of \$65 billion, or about \$225 for every American, or \$900 for a typical family of four."

Wal-Mart's shoppers tend to be average for the country as a whole but poorer than those who patronize some of Wal-Mart's prominent competitors. Wal-Mart shoppers have an average household income of approximately \$40-\$45,000; by comparison, Target shoppers have an average income of \$60,000 and Costco shoppers average \$74,000 (Basker 2007: 187). Poorer people also tend to shop at Wal-Mart; summarizing Pew Center survey data, Basker (2007: 187) puts the fraction of people below \$20,000 in annual earnings who shop at Wal-Mart "regularly" at 53% and the fraction of people above \$50,000 in annual earnings who are regular Wal-Mart shoppers at 33%.

Zhu et al. (2009) point out that Kmart and Wal-Mart locate in similar markets while Target is a "niche" discounter. Basker (forthcoming) estimates the income elasticity of demand for goods at Target and goods at Wal-Mart generally and finds that the income elasticity of demand for Target is approximately 0.8 or 0.9 while the income elasticity of demand for goods at Wal-Mart is -0.5 at most with a "realistic" estimate being around -0.7. This suggests that a one

percent reduction in personal disposable income will actually increase Wal-Mart's revenues and decrease Target's revenues.

In spite of criticisms of Wal-Mart's labor practices, Jason Furman (2005) called Wal-Mart a "progressive success story" because of its impact on prices. He notes that if the 2005 Global Insight estimate of annual average household savings of \$2,329 is accurate, the annual Wal-Mart related consumer savings of \$263 billion dwarfs Wal-Mart-generated reductions in retail wages of \$4.7 billion estimated by Dube et al. (2005).⁷ Hicks (2007: 82) notes that reductions in nominal retail wages are likely offset by larger price reductions, which translates into higher real wages. Courtemanche and Carden's (2011a) estimate of \$177 per household in savings attributable to the effects of Wal-Mart Supercenters in 2002 multiplied by the 105,401,101 households in the 2000 census yields household savings of \$18.7 billion, which is still substantially higher than Dube et al.'s estimate of lost wages.

Hausman and Leibtag (2007: 25) argue that the compensating variation—i.e., welfare increase—attributable to supercenters, mass merchandisers, and club stores is some 25% of food expenditures. Since poorer households spend more of their income on food, the effect (as a percentage of income) is higher toward the bottom of the income distribution (Furman 2005: 2-3). Hausman and Leibtag (2007: 1172, 1174) further argue that compensating variation from access to non-traditional retailers is higher at lower income levels, which would make the effect even more progressive.

Courtemanche and Carden (2011a: 165) argue that the expansion of Wal-Mart Supercenters explains approximately 10.5% of the increase in obesity in the United States since the late 1980s. This could be mostly due to the effect of Wal-Mart Supercenters on food prices (Courtemanche and Carden 2011a: 177-178).

They use estimates from Basker and Noel (2009) and Hausman and Leibtag (2007) to construct a back-of-the-envelope estimate of household savings from the direct and indirect effects of Super Wal-Mart and arrive at a calculation of \$177 per household, some 5.6% of which is offset by additional obesity-related health costs (Courtemanche and Carden 2011a: 179, 174). Another back-of-the-envelope calculation by Vedder and Cox (2006: 135) puts the social saving from the Big Box revolution at some 5% of Gross Domestic Product, which they note is comparable to the social saving attributable to railroads in the nineteenth century. Courtemanche and Carden (2011b) find that while Sam's Club does not affect grocery prices among incumbent retailers, Costco actually leads to a slight increase in prices across a number of categories of some 1.4%, on average in the short run and 2.7% in the long run. The effect is largest for items where the brand is not specified, which suggests that incumbents might be competing with Costco by improving the quality first of the goods on offer and second of the overall shopping experience. Matsa (2011) argues that this is one of the ways firms respond to Wal-Mart entry, with one specific aspect of the quality of a shopping experience being inventory control. Having goods on hand is an important element of a satisfactory shopping experience. Stockouts—when firms don't have goods they carry on the shelves or in inventory—make customers angry. Grocers lose \$6-\$12 billion because of stockouts each year (Matsa 2011: 1540). Matsa argues that competitive pressure from Wal-Mart causes better inventory management with an average reduction in stockouts of 10% after Wal-Mart entry (Matsa 2011: 1542). There are pronounced effects on prices and stockout rates in low-income areas after Wal-Mart enters; as Matsa writes, "Walmart's format most appeals to low-income consumers, and these consumers

also appear to be the biggest beneficiaries of Walmart's competitive effects on other stores" (Matsa (2011: 1543). Gandon and Jaremski (2011) argue that a firm increases the frequency of its sales—particularly on popular items—as its stores get closer to Wal-Mart.

Wal-Mart is the most visible face of the global economy. Wal-Mart and other chains have provided entrée for imports from less developed countries, and "Wal-Mart handles 6.5 percent of U.S. retail sales but accounts for over 15 percent of U.S. imports of consumer goods from China" (Basker and Van 2010:414). Basker and Van (2010:414) estimate that the "disproportionate growth of large retailers between 1997 and 2002 is associated with approximately one-third of the overall growth in consumer-goods imports, half of the growth in consumer-goods imports from China, and nearly three-quarters of the growth from Mexico."

The anti-chain movement of the early twentieth century has its modern incarnation in the public debate about Wal-Mart. Approximately 19% of survey respondents said that Wal-Mart is bad for the community while 24% said "Wal-Mart was bad for the country" (Basker 2007: 178). Slater (2004: xi) reports that Wal-Mart was defending itself against "some 6,649 lawsuits as of September 2003." Wal-Mart's explicit and active opposition to labor unions has earned it a substantial number of political enemies. The company's role as a conduit for goods from less developed countries earns it the contempt of labor unions in manufacturing, competition from Wal-Mart makes it more difficult for unions that represent grocery workers to demand higher wages and generous benefits, and adding only half of Wal-Mart's 2.1 million employees to the Union of Food and Commercial Workers (UFCW) or the Service Employees International Union (SEIU) would nearly double the size of the UFCW or increase the size of the SEIU by 50%.

Wal-Mart has a complex relationship with governments at various levels. On one hand, the company has made use of government subsidies and special tax treatment (Mattera and Purinton 2004). In 2005, Wal-Mart supported an increase in the minimum wage and in 2009 joined with the SEIU and the Center for American Progress to call for employer mandates for health coverage.⁸ At the same time, some states and localities are working to make Wal-Mart entry prohibitively onerous through laws imposing special taxes and requirements on firms with certain size characteristics; these laws appear to target Wal-Mart specifically (Hicks 2007:267ff).

Wal-Mart (or simply commerce in general) might also affect quality-of-life indicators that are not narrowly “economic.” A popular claim is that chains decimate local businesses and leave towns stripped of important social and institutional capital (Lebhar 1963: 159-160). With respect to Wal-Mart, this received some empirical support from Goetz and Rupasingha (2006), but Carden et al. (2009a) argue that across a range of indicators assembled for Putnam’s (2000) study of social capital, Wal-Mart has no identifiable effect. Carden et al. (2009b) show that this is also true for measures of political, social, and cultural values, while Carden and Courtemanche (2009) argue that Wal-Mart increases participation in some leisure activities, including those for which the equipment can be purchased at Wal-Mart and “high culture” activities—specifically classical music concerts and trips to art galleries.

Conclusion

The rise of mass-market merchandisers in the late twentieth century has been but one in a series of episodes in which the U.S. economy has transformed itself through a process of

creative destruction. The retail sector has been transformed: it delivers goods to consumers with a combination of quantity, price, and promptness that would have been unthinkable in the earlier twentieth century.

One firm—Wal-Mart—towers above the rest. The crusade against Wal-Mart echoes the crusade against chain stores in the early twentieth century, and the threat Wal-Mart poses to the unionized service sector suggests first that unions are right to be concerned and second that criticism is unlikely to abate.

It is tempting to credit scanners and satellites for a structural earthquake in the retail sector, but managerial and organizational innovation in the face of changing market conditions was extremely important. This echoes Douglass C. North’s (1968) explanation of the sources of productivity change in ocean shipping as the product of institutions, organization, and market development rather than technology and Kim’s explanation of the rise of multi-unit firms as a response to “economies in advertising and in transactions” (Kim 1999: 95).

Several trends are apparent in late-twentieth century retail. First, retail outlets have gotten larger. Second, chains have become increasingly important while single-establishment firms have become less important. Third, prices have fallen while the assortment available to the average consumer has increased dramatically. The savings and productivity advances made possible by mass-market merchandisers testify to the importance of these changes. The research in this area is still relatively young, and the retail sector continues to change. Time will tell just what mass-market merchandisers have meant, and will mean, for the evolution of the structure of the American economy.

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Endnotes

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2 See Jarmin et al. (2009) for a summary of retail trends.

3 These are adapted from and elaborated on by Hicks (2007: 8-9).

4 SIC denotes the Standard Industrial Classification System, which US statistical agencies used to classify business

establishments until it was replaced by the North American Industrial Classification System in 1997. See www.census.gov/eos/www/naics/ for more information. Accessed March 29, 2012.

5 Census Bureau data sets on firms—like the Longitudinal Business Database used by Jarmin et al. (2009) as well as County Business Patterns and other data sets—come with an important caveat: they only count firms with paid employees and not independent contractors or sole proprietors without paid employees. I thank Emek Basker for emphasizing this.

6 Profit margin calculated as after-tax profits divided by sales. An accounting change lowered Wal-Mart's after-tax profits in 1975. Financial reports for a given year are revised from report to report; the latest available data are used where possible.

7 Dube et al. (2007) put the figure at \$4.5 billion.

8 http://www.americanprogress.org/pressroom/releases/2009/06/Walmart_hc.html, accessed May 27, 2011.



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