

An Economist Goes to the Grocery Store

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As most people know, economists are a strange lot. We view the world from an unusual perspective. This allows us to see things that others miss – such as the obvious fact that Superman needs an agent

(<http://mises.org/daily/2242/Superman-Needs-an-Agent>) – but alas, it renders us oddballs.

On a recent trip to the grocery store, it occurred to me that much of what I see during a typical outing differs from what carpenters, lawyers, and schoolteachers see. As someone who worked in a grocery store for several years as a teenager, I am particularly qualified to write such an article, which will be either fascinating or tedious, depending on the taste of the reader.



What's So Super about This Market?

The first thing we should discuss is that the very notion of a "supermarket" is an innovation, reflecting the private sector's response to changing conditions. A century ago it made sense – especially in a densely populated city – for housewives to frequently visit the butcher, baker, tailor, and other shopkeepers.

Yet in today's economy, with all of the adults in a typical household working (or driving the kids to various extracurricular activities), and with modern refrigeration and packaging technology, for most it would be an obscene waste of time to do the household shopping in this fashion. Instead, many households get by with one big weekly trip to the supermarket, to be supplemented with quick stops for essentials during the week.

In addition to the increased value of the shopper's time, other major changes include the explosion of suburbs and the imposition of zoning laws that segregate residential and commercial districts. These are all factors in the transformation of what America looked like in (say) the flashback scenes of *The Godfather: Part II* (<http://www.imdb.com/title/tt0071562/>), compared to today.

Speaking of Time ...

The premium many shoppers place on their time shows up in various ways, besides the existence of a supermarket itself. For example, one of the main reasons higher-end grocery stores stay in business – even though the same brands and variety of flavors are available in the cheaper stores just down the road – is that the *checkout lines* are typically much shorter.

For example, if I just need salad dressing on a Sunday afternoon, it would be insane for me to go to my local Walmart, even though they will certainly have the particular kind that I want. Depending on the weather, it's possible that I will have to wait a good 10 to 15 minutes just to reach the cashier because the store will be so crowded.

In recognition of this fact, I save up my big and periodic purchases (toilet paper, paper towels, shaving razors, laundry detergent, etc.) for when I have two hours to kill. During a normal week, I do my shopping at a grocery store that is closer to my house and charges slightly higher prices. The

saving in time is worth it to me.

Incidentally, this effect is even more pronounced in convenience stores. They have a lower rate of inventory turnover than major grocery stores, and so to stay in business they have to charge a higher markup over the wholesale price. (Because they buy in lower quantities, their wholesale price itself might be higher too.) This business model works, because someone who pulled off the interstate to get gas isn't going to drive around looking for a grocery store to buy a can of Coke.

Cashier Times

Computerized registers allow the grocery-store management to monitor the performance of the cashiers. This includes obvious things like making sure the ending cash, checks, coupons, food-stamp vouchers, etc., in the drawer match up with the starting cash and the recorded transaction history during the cashier's shift.

Yet the computerized registers also allow the managers to monitor the speed and accuracy of a cashier. This helps the management schedule the appropriate cashiers for crucial shifts (when the store will be busy), and also to allocate the cashiers on a given shift to the best lines. For example, you don't want to put the slowest cashier in the express lane from 6 to 7 p.m. on a Wednesday. Another benefit is that just *knowing* they are being monitored with such precision leads cashiers to strive for quicker checkouts. (If the average teenager just thought the boss had to keep track by visual observation, there would be much less incentive to stay speedy throughout a shift.)

A tremendous innovation over the last few years was the shift toward self-checkout. Now one employee can oversee perhaps six different customers as they scan and bag their own groceries. Of course the customers take longer processing their order than a professional cashier would, but the grocery store doesn't have to pay the customers for this labor.

Indeed, in the absence of monetary inflation, labor-saving (from the store's viewpoint) innovations such as self-checkout and those mechanized shopping-cart movers would have lowered food prices at the grocery store. Thus the official increase in food prices understates – perhaps significantly – the actual impact of Federal Reserve policy.

A Tip from the Dairy Guy

One innovation that many shoppers probably never really noticed is the transition to a "backfill" approach in dairy departments. (I spent most of my time working in the dairy.) In the dairy, product rotation is critical because of the narrow window from when you get the product and when it expires. (The meat and fish departments are on an even tighter leash.) The clowns stocking the main aisles with cereal boxes and toilet paper don't need to be too careful, but in the dairy department it is a constant battle to keep the oldest units of butter, cottage cheese, yogurt, etc., at the *front* of the display case, so that customers naturally grab them first before exposing the newer units in the back.

Back when the dairy case was simply a bunch of shelves inside a cooler, rotation was quite arduous. For example, suppose the popular strawberry yogurt was normally stocked in the case two rows across and six deep. Further suppose that on a busy Sunday afternoon, customers were mobbing the store and bought up half the yogurt. Finally, suppose that the yogurt on the shelf expired on October 3, but the yogurt in the new boxes back in the cooler expired on October 10. With the old system, replenishing the yogurt (so that the case looked "flush" and visually appealing to the customer) would mean taking out all of the old yogurt and putting it, say, on the ledge of the case, then putting the new units in the back, and finally moving the old units back onto the shelf but now in front.

The backfill approach changed all that. Shoppers may recall seeing a mysterious gloved hand emerging from the dairy case, moving ricotta cheese around, or pushing cartons of milk forward. What happened is that the newer stores designed the dairy department so that an employee (decked

out in a coat and gloves) could restock the main shelves from the cooler itself. Not only did this cut down on travel time (from moving the product out of the cooler and around to the front of the shelves), but it also made it much easier to maintain proper product rotation, since the employee automatically put newer units in the back rather than the front.

In light of the above, let me offer a tip: When buying something from the dairy department, don't just grab the first unit on the shelf. Often if you look two or three rows back, you will find a fresher one.

Besides the officially stamped expiration date, there is another reason to heed my advice: When shoppers put something in their cart and then change their mind, the item eventually finds its way back to the proper location. But if we're talking about a carton of eggs or a package of string cheese, keep in mind that for all you know, that item may have been sitting out in room temperature for hours before an employee from the front of the store ended up putting it back. (In principle that shouldn't happen, but c'mon we're dealing with teenagers!) So that's another reason it's best not to grab anything perishable from the very front of the case.

Club Cards

In a previous article (<http://mises.org/daily/5504/The-Economics-of-Coupons-and-Other-Price-Cuts>) I explained the standard economic rationale behind coupons. It too involves the value different shoppers place on time: A lawyer isn't going to look through a mailer clipping coupons to save 10 cents on a box of cereal. However, an elderly widow living on a fixed income may very well behave this way, and so the grocery store wants to give her a price cut without sharing it with the whole population of shoppers.

As computers have become ubiquitous, the generic coupons are being replaced by price discounts that shoppers can reap by applying for a special club membership. (The shopper might get a plastic card for her wallet or a smaller tab for her keychain.)

From a marketing perspective, the data obtained from constantly scanning these club cards is far more informative than from a standard coupon or a standard "sale price," because the new technology allows for longitudinal analysis as opposed to a snapshot cross-sectional analysis.

For example, in the old days if a grocery store had a buy-one-get-one-free sale on hot dogs in July, they could of course see the spike in sales of hot dogs, and also see how much more beer, soda, mustard, and ketchup they sold, compared to what they otherwise would have expected. But now, with a sale tied to each household's membership card, the store can precisely attribute individual customer purchases of hot dogs with the other items.

What's more, the marketing analysts (who presumably buy such data from stores all over the country) can see how various types of households respond to different offers throughout the year. For example, consider again the hot-dog sale. How many households will indeed splurge on hot dogs when they're on sale, but then not buy them again for a relatively long time (compared to their normal pattern)? Looking at such data, the store can determine whether a price cut really does increase total sales over, say, a three-month period, or whether it merely induces households to pull forward purchases (perhaps putting the extra hot dogs in the freezer) that they otherwise would have spread out.

Conclusion



(<http://mises.org/store/Product.aspx?ProductId=10422>)

One of the fascinating features of our capitalist division of labor is that even the most mundane job involves a wealth of details that the average person often overlooks. An economist is more likely to spot some of these details than others, but in order to understand how a business – such as a grocery store – really operates, there's no substitute for actually working in it.

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