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What's Happening to Our Food Consumer?

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CONSUMER SPENDING and the amount of money consumers have available for spending in the United States have risen every year since 1939. The changes in spending for food, for other goods and for services from 1945 through 1958 are shown in chart 1.

Spending for food has been rising, but not as rapidly as the incomes that consumers have available for spending. This disposable personal income rose from 170 billion dollars in 1947 (just after World War II) to 311 billion dollars in 1958—a rise of 84 percent. But over the same period, consumer spending for food rose only 51 percent.

The percentage of their income that consumers spend for food has been declining. Consumers spent 27 percent of their disposable income for food in 1947. In 1958 they spent only 22 percent. Food has been losing ground in the competition for the consumer's dollar.

But this is only part of the picture. Even though consumers have been spending more in total for food, they've been spending a smaller percentage of their incomes for food. In addition, chart 2 shows that farmers have been getting a smaller percentage of the amount consumers do spend for food; they've been getting a smaller percentage of a smaller percentage. Total United States farm receipts for food increased only slightly over the 1947-58 period.

Briefly, the total picture is this: Consumers' disposable income from 1947 through 1958 rose 84 percent; spending for food increased 51 percent; but farmers' receipts for food rose only 10 percent.

Why did this happen? Is it a normal result of economic growth? Or is something wrong with the food marketing system? And, in any case, is the same sort of thing likely to continue in the future?

Why It Happened . . .

Why has the percentage of consumers' income spent for food been declining? The chief reason is the influence of what is known as Engel's law.

Ernst Engel, in the mid-1800's, studied consumers' budgets in Belgium and Saxony to learn the relationship between income and spending for food. His work showed that *high-income groups* spent *more money per person* for food than did low-income groups. But the high-income groups still spent a *smaller proportion* of their incomes for food than did the low-income groups. This relationship is called "Engel's law." A number of studies since then have shown similar relationships between income and spending for food in other countries, including the United States.

A 1955 survey in the United States showed that high-income groups spend more money for food than low-income groups. But a person with 1 percent more income than another doesn't spend 1 percent more money for food. He spends, on the average, only about 0.44 percent more for food. So, while high-income groups spend more money for food than low-income groups, what they spend is a smaller proportion of their incomes. The general rule is

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this: The larger the income, the smaller the percentage of it that's spent on food.

Change Over Time . . .

Engel's law, however, compares only spending per capita among different income groups at the same point in time. The "law" doesn't have exactly the same effect when incomes change over a period of time — especially when other things are changing as well as income. What does happen in this case?

If Engel's law had the same effect over time that it has at a given point in time, consumer spending for food would have risen 37 percent from 1947 through 1958. Actually it rose more than this—by 51 percent. This is a greater change than could be explained by Engel's law if it applied uniformly over time.

On this basis, then, the question isn't why the percentage of consumer income spent for food declined during 1947-58, but, rather, why it declined so little. There are several reasons:

1. Part of the rise in consumer income in the 1947-58 period wasn't a rise in real income but only a rise in money income—the result of inflation. (Think of this in terms of what you can buy with your income. If the prices of the things you buy increase at the same rate as your income, you have more *money* income, but you haven't gained a thing in *real* income; that is, you can't buy anything more with your increased money income than you could before both your income and prices increased.) Because of inflation, then, the percentage of consumer income spent on food declined less than it would have dropped if the rise in consumer income had all been a real rise in income.

2. Another part of the rise in total consumer income simply was the result of an increase in the number of consumers. Population increased 20 percent in the 1947-58 period. But if all of the increase in consumer income had come only from population increase, the percentage of income spent for food probably wouldn't have dropped at all. Engel's law

Chart 1

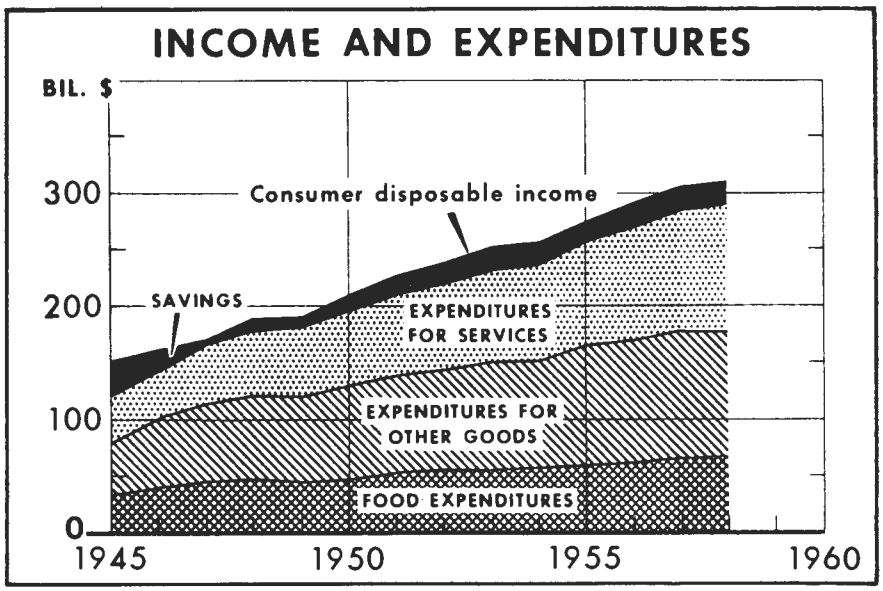


Chart 2

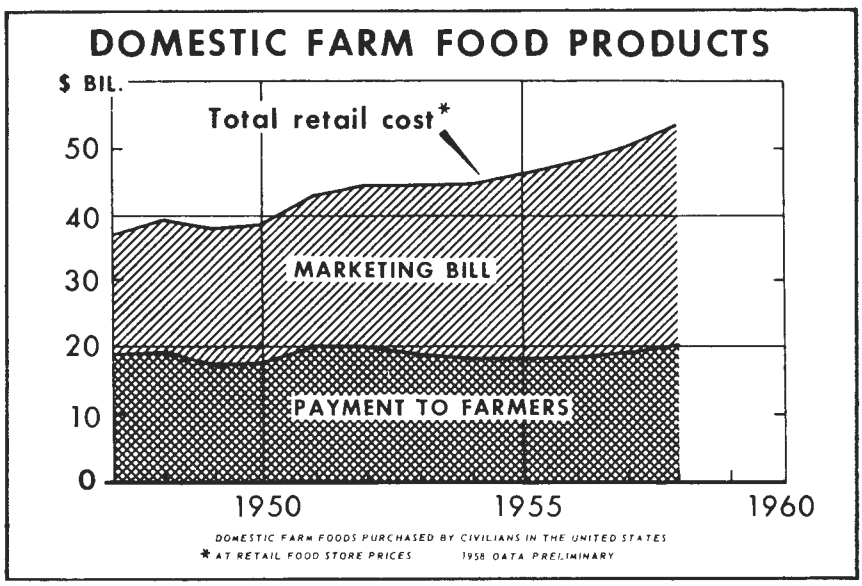
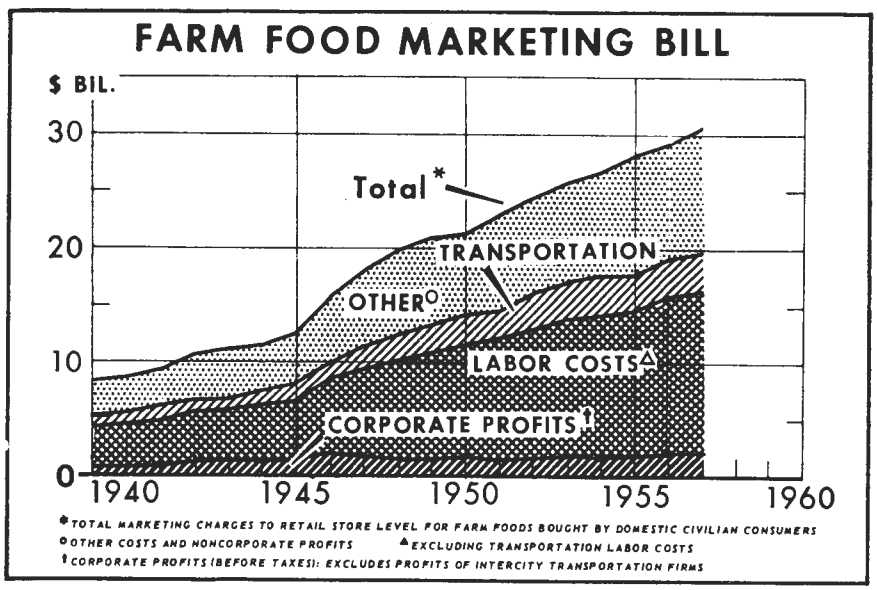


Chart 3



applies to per-capita income, not to total national income.

3. The composition of diets changed. Relatively more expensive foods, such as meats, were included; this has tended to increase spending for food.

4. The farm population has declined as a percentage of total population. Farm families spend a lower percentage of their incomes for food than urban people. Accordingly, the decline in farm population has tended to increase the average spending for food.

5. More "built-in food services"—frozen fruits and vegetables, TV dinners, etc.—have been included. This also tends to increase food costs or spending.

6. Food supplies increased faster than population. This tended to operate in the opposite direction from the first five influences.

These are the chief reasons the percentage of consumers' income spent for food changed differently over time, in relation to consumer income, than it did among income classes at the one point of time in 1955. And, not only are the rates probably different in themselves "other things remaining equal," but other things didn't remain equal during the period. Many other things, too, were changing with the passage of time.

Amounts of Food . . .

So far we've been talking about the "income-elasticity" of consumer *spending* for food. This shows how much spending for food changes with income and is measured in dollars and cents. But it's important also to look at the "income-elasticity" of the *amount of food* consumed. This shows how much the amount of food consumed changes with income and is measured in pounds.

The income-elasticity of the amount of food consumed is lower than the income-elasticity of spending for food. High-income consumers pay more for food than low-income consumers (they buy more expensive foods), but they don't eat much more in pounds. They can't. The human stomach is pretty inelastic!

It's important for us in the Corn Belt to note another thing: Engel's law has different effects on different foods. High-income urban consumers spend more for beef than low-income consumers, but they don't spend much more for pork. They eat more beef, but they actually eat slightly less pork. So, while we can expect urban consumers to eat more beef as their incomes rise in the future, we can't expect that they'll eat more pork. In fact, they're likely to eat a little less.

The Farmer's Share . . .

Why did the farmer's share of consumer spending for food decline during 1947-58? Why did food spending and marketing costs rise so much relative to farm receipts?

The chief components of the rise in marketing costs are shown in chart 3. The main factor is the rise in labor, transportation and other costs. Profits represent a relatively small item and didn't change much in any case.

The farmer's share of the consumer food dollar is now running at about 40 percent—just about the same as it was in the 1930's before World War II.

The Future . . .

What's likely to happen in the future? We need to answer two questions: (1) Is the percentage of consumer income spent for food likely to continue to decline slowly as it has in the past, more rapidly, or not at all? (2) Is the farmer's share of the consumer food dollar likely to continue to decline as it has in recent years, or is the present 40-percent level something of a bedrock bottom?

Let's take these two questions in order:

Percentage of consumer income spent for food—It seems likely that consumer spending for food will continue to increase in the future as in the recent past but that the percentage of income spent for food will continue to decline. The question is how rapid the rate of decline will be.

The same reasons that caused the percentage of consumer income spent for food to decline in the past probably will be operating in the future. These include Engel's law, mild inflation, population growth increasing the demand for food, and technology increasing the supply of food at about the same or a slightly faster rate.

We can't say that these reasons will continue to exert their effects at the same rates as in the past. We can only point out what the reasons were and predict that the rates will be about the same over the next few years as they were in the recent past. If they are, then the percentage of consumer income spent for food probably will continue to decline in the near future at about the same rate it has in the past.

Farmer's share of consumer spending for food—The question here is whether the farmer's share of consumer spending for food will continue to decline as it did from 1947 to 1958—or whether it will remain at about the same percentage (40 percent) that it reached in 1958 (about the same percentage as in the 1935-40 period before World War II).

The consumer's demand for *marketing services* as incomes rise is estimated to increase about *five times* as much as the demand for food products at the farm level. If per-capita incomes continue to rise (as most economists predict they will), then the demand for marketing services will expand more rapidly than the demand for food as such. In that case, the number of workers employed in marketing and the total resources used by marketing firms would increase relative to workers and resources in agriculture. And marketing costs would take up an increasing share of consumer spending for food.

These things can be expected to happen unless new technological improvements increase efficiency in food marketing more rapidly than in agriculture and food production. It may be possible for the food industry to provide the increasing quantity of services demanded by consumers efficiently enough so that marketing costs won't increase. It isn't likely, however, that this increase in marketing efficiency can proceed so rapidly that marketing costs will decrease relative to farm food production costs.