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PORK DEMAND IN 1980 -
IMPACT OF ECONOMIC AND SOCIAL CHANGES

By

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Pork Demand in 1980 - Impact of Economic and Social Changes^{1/}

In making prediction it is customary to begin with apology -- apology for ones limited knowledge and capabilities -- apology for the lack of reliable indicators. I make no such apology. Any look into what the future holds can be, in reality, little more than personal opinion colored by the present environment and by the way one sees the past. And this is true regardless of any so-called empirical evidences offered in support of an individual's contentions. After all the main benefit of prediction is to expose the many and varied considerations expected to have bearing on the future. Where each individual places these considerations in the balance sheet and the values one gives each will determine ones outlook. In the papers to follow we will have opportunity to examine these considerations in depth.

For the past 60 years the per capita consumption of pork has averaged 66 pounds. It ranged from a high of 71 pounds during the decade of the 1940's when the industry responded to the needs of World War II to a low of 62 pounds during the decade of the 1930's as a result of severe droughts. In the face of this remarkably stable level of consumption both beef and poultry have shown rather dramatic increases. In the 1930's the per capita consumption of beef, chickens and turkeys was 54, 14, and 2 pounds respectively. During the 1960's these figures were 99, 33, and 8. In other words the per capita consumption of beef and poultry has about doubled while pork has remained constant. One needs only a general knowledge of prices to know that most of the increased consumption of beef results from an increased demand while much of that of poultry stems from cost efficiencies in production. In other words pork has lost favor to beef on the demand side of the equation and lost favor to poultry on the supply side. In a sense pork finds itself trapped in the middle.

But we all recognize that history has little relevancy to the future except possibly in the mental block it establishes in our minds. Twenty years ago historical information would have been little more than a liability in predicting the future of the broiler industry and so it may be with the pork industry today. At the same time we are cognizant of the hazards of looking only at short term current trends. For example during the decade of the 1960's we saw retail pork prices increase 22 percent and tonnage consumed increase 38 percent for a net increase of 68 percent in the retail dollars spent for pork. During this time there was an increase of 98 percent in personal disposable income. Without going into further detail one can conclude that pork consumption levels in recent years is following the longer term historical trend of about holding its own while competing meats continue to gain favor. While on the statistical charts nothing really exciting is happening to give cause for either alarm or jubilation, it is apparent to this observer that the pork industry today has all the makings of being on the threshold of staging a major breakthrough. I say this because of the "springboard position" the pork

^{1/} Talk given before a National Symposium on Vertical Coordination in the Pork Industry at Purdue University on April 14, 1971.

industry holds between beef and poultry and not from any particular knowledge on an impending breakthrough on either the supply or demand side. With this observation I leave the hazardous, futile and unrewarding occupation of trying to statistically extrapolate the future from the past and turn to those elements which I think will make up the balance sheet for the future of pork.

These elements fall in two major categories. The first are technological developments affecting primarily the supply picture. The second are economic and social changes affecting demand. Living closer to Broadway than Iowa I feel much more comfortable with the latter elements. I will do little more than itemize some of the technological considerations directing the main thrust of my comments at the changing economic and social picture. At the same time I must be realistic in recognizing that the impending breakthrough depends far more on the promise of changing product characteristics than on anticipated changes in the consumer. There is an old saying in marketing to the effect that it is easier and more rewarding to alter the product than the wants of the consumer.

Technological Developments

Mass Production: Cyclical movements of pork prices in response to changes in supply indicate that cost efficiencies in hog production do indeed materially affect consumption. The big question is whether or not significant cost efficiencies are forthcoming. Concentration of production in fewer hands and vertical integration have been championed as a means of attaining cost efficiencies. While there has been considerable concentration of hog production on specialized farms the continued requirements of individual husbandry in disease control and the like hold the industry to relatively small units of production. Concentration of production does not appear to be shaping up any faster in the hog business than in many other forms of agriculture with which the pork industry competes for market favor. It would appear that radical changes in this element must await other technological developments. Concentration of production will continue at a modest pace but it is not likely to materially alter the outlook for pork over the coming decade.

There is a fairly common belief that concentration of production results in more stable supplies. It is rationalized that specialized farms do not have the option of moving so freely into and out of any given enterprise. But the concentration we have experienced in hog production to date does not seem to bear this out. If anything supply management seems to be a more severe problem in the broiler industry today than before integration. Large swine farmers still produce corn and they continue to enjoy the option of selling corn when it is in favor. In looking at the record across agriculture I can only conclude that cyclical production will continue to haunt the hog industry disadvantaging both the production and processing phases of the industry.

Uniformity of Product: One of the greatest benefits of concentrated production could well prove to be the production of a more uniform product. Great strides have been made over the years in the production of a leaner animal but this has been accomplished with some sacrifice ranging from meat quality to breeding characteristics and feed conversion efficiency. The only point I seek to make is the tremendous importance marketwise of producing a more uniform product for the consumer. The fact that shoppers in stores continue to spend more time selecting pork cuts than either turkeys or broilers demonstrates the value of this consideration. At the same time considerations in producing greater uniformity must hold within certain bounds of quality.

Meat Substitutes: Great strides have been made over the past ten years in the development of meat substitutes particularly with textured soybean protein. Some of the most successful simulations have been with pork products but the process of total simulation remains expensive. Consumer appeal lies primarily in the high protein-low fat content of the product. But engineered synthetic foods designed to duplicate the characteristics of natural foods must offer either substantial cost savings or greater product uniformity in order to be competitive. An exception may be possibly in the special dietary classifications. Such a cost breakthrough is not apparent today but to the extent it should occur it can be expected to have its major impact on the pork industry.

In the meantime protein derived from plant, animal and marine sources is likely to find rapidly increasing acceptance as extenders in comminuted meats. In this instance both cost and product characteristic advantages hold much greater promise. At present the cost advantage of using extenders is greater than the changes such extenders make in product appeal. Such changes can be either positive or negative but on balance extenders can be regarded more as potential stimulants of pork consumption than substitutes. While I think the use of protein extenders goes on the asset side of the balance sheet, progress will depend as much on public regulation as on technology.

Production Technology: Over the next ten years we can expect to see technological advance in disease control, breeding, reproduction rates and perhaps some in feed conversion efficiency. A major breakthrough in any one of these areas could materially reduce costs and thereby alter the pattern of the past consumption trend. And there is good reason to believe that technological developments affecting the appeal of pork to consumers will bear even greater potential than cost reducing developments. The two are frequently interrelated.

For many years the pork industry has recognized the appeal problems it faces with fat -- the singularly most important element contributing to variability in product uniformity. In the breeding of a leaner animal much fat has been taken out of pork as well as off pork. While the latter is desirable the former is not. It is well established that much of the flavor and texture appeal of meat depends greatly on its fat content. Breeding to retain fat in pork relative to getting fat off pork must receive greater attention if the finished product is to gain consumer favor

and it should be clear that the development must begin with the producer of hogs. At the same time packers in their buying practices need to give greater emphasis in their buying to pork quality than yield. This may require significant changes in hog grading practices. But the key responsibility lies with the producer for the packer will continue to use whatever pork qualities get to him.

Economic and Social Changes

Structural Change: Over the years we have been shifting from an agricultural to an industrial to a service economy with each advance accompanied by understandable lags in changing value concepts. Material consumer values characteristically dominate an agrarian society. As we move toward a service economy these values remain but are increasingly subdued by service values many of which are intangible. In a rapidly developing society behavior frequently precedes understanding with the result that rationales for behavior tend to reach back to the familiar ground of materialism. This process of reaching back to the past -- of clinging to materialistic values and the difficulty of understanding the intangible values of a highly complex society results in resistance to change.

We accept prestige values in our actions but reject them in our rationale. We react favorably to colored labels but reject them in our mind. We accept convenience foods in our actions but clinging to materialistic values cannot justify the cost. The vestiges of material values still hang heavy over the many intangible service values rendered by marketing.

Against this conceptual background we have seen rather radical structural changes in society the most conspicuous of which are wealth, population growth, urbanization, employment and education. These structural changes along with modified value concepts are responsible for the economic and social changes which will have impact on pork consumption in the future.

Population Growth and Urbanization: A quick review of long term trends in population provides a background for many of the changing consumer characteristics and attitudes which I will discuss. Since 1800 the population in this nation has increased from the 5 to the 200 million level. During this time the center of population has shifted westward along the 39th parallel from Baltimore to St. Louis. In the process the population has become urbanized moving from under 5 percent to better than 70 percent urban at the present time. In 1790 half the households were comprised of 6 or more members. This has now dropped to about 11 percent of all households. At the same time single person households have shown a dramatic increase. With economic independence many old people no longer live with their children and marriage for many is no longer an economic necessity.

The most notable migrations have been from the farm to the cities, from the East to West, and the movement of blacks from the poverty of the

rural South to the welfare of the urban North. The most notable changes in composition have been in income, occupation and education.

If we were to examine pork consumption levels among occupational, education and income groups at any one point in time, as has been done in many studies we would find pork consumption highest among lower income people, among farm and blue collar workers and those with the least education. From this we would expect that the changes which have taken place in the composition of our population would have resulted in a declining rate of pork consumption. One can only speculate as to the reasons why this has not occurred. More significantly we can also speculate to what extent these same forces will be of influence in the years ahead.

Most obvious of the reasons is the dramatic increase in total meat consumption per capita. During the decade of the 30's per capita meat and poultry intake amounted to 140 pounds. During the 60's it rose to 194 pounds. This 38 percent increase was sufficient to offset much of the expected depressant effects of occupation, education, and income changes on pork consumption. As expenditures for food continue to take a decreasing share of disposable incomes we can expect further rises in total meat consumption. But what is the limit? How much longer can we expect this rise in meat consumption to sustain present levels of pork consumption? Certainly it is not all a matter of the size of stomach or food substitution for an increase in wastage can be expected. I rather suspect that we are nowhere near reaching a saturation point and that this force of unfulfilled want will be sufficient to carry the pork industry well past the coming ten years. At the same time I think we will see so-called quality intakes assume greater importance relative to quantity intakes as we approach the saturation point and this brings me to the second reason...fixed food habits.

It has been well established that food habits being conditioned by environment are slow to change. I recall a study I made of meat consumption by about a thousand of the same families in Syracuse, New York both before and after World War II. With significantly increased incomes we found that about two-thirds of the increased expenditures were for quantity and one-third for quality as represented by an upgrading in cuts. At any rate the stability of food habits certainly can be given some of the credit for the sustained consumption of pork but this factor can be expected to diminish in importance with both the increased mobility of the population and its changing age composition. While carry over of past food habits continues to be an asset to the pork industry its asset value will depreciate at an increasing rate in the future.

Finally an improved pork product has been of some influence but most of this improvement has been in processed product -- bacon and comminuted products which have been made uniform by manufacturing processes. With the comminuted products the fat that has been taken out of pork has been put back in the quantity and place where it creates improved taste appeal. But less has been done by the producer to improve fresh pork than either beef or poultry and herein lies much of the unrealized potential that today faces the pork industry.

Image of Pork: Much has been said about the image of pork and most of it has been unfavorable. These points were brought out in the recent U.S.D.A. study of "Homemakers Opinions About Selected Meats".^{2/} In the opinions of homemakers pork ranked significantly below beef and chicken. Out of all comments on pork 53 percent were unfavorable. This compared with 7 percent for beef and 14 percent for poultry. Among the many negatives pork was considered hard to digest, not always safe to eat, high in cholesterol and undesirable for those having weight problems. Compared with other meats it was considered to have too much waste and to be less reliable in quality. Significantly fresh pork ranked well below ham in all these characteristics but even so ham ranked well below either beef or poultry. Pork ranked favorably with other meats only in the very important attribute of tastiness. These opinions regardless of their validity give credence to what has been called the unfavorable image of pork. They are opinions that will persist, as they have since Leviticus, until there are material and conspicuous product changes in quality, uniformity, and identity.

Consumerism: In attempting to gain insight into the changing nature of the consumer one cannot ignore the new social movement called consumerism with its far reaching impact on consumer behavior, on marketing practices, and on public regulation. I have defined consumerism as a movement of third party activists who seek to impose their value judgements on a buyer-seller relationship. It is a movement of people who are trying to establish values for other people. It is not a movement of consumers themselves but rather a movement of a consumer leadership who for assorted reasons have become disenchanted with the free market. It is a movement based on rationalizations of consumer wants and through education, coercion, and public regulation seeks to impose a set of specific universal values on what has traditionally been a very un-universal consumer. In so describing consumerism it is not my purpose to advocate or condemn the movement but rather to ascertain the impact of the movement on the market place.

Marketers have always had difficulty getting a reading on the wants of the consumer. What consumers tell them and what consumers do are not always consistent. Surveys of consumer opinions have long been discounted by the effective marketer as an almost certain path to disaster. To some degree this failure to rationalize behavior is reflected in the homemakers' opinions I have just reviewed. Against this background consumerism brings a new authoritarian voice to the market. It is a voice that has a growing impact on consumers, marketers and legislative bodies. It is a voice based on the same kind of rationalizations expressed by homemakers. Thus the pork industry has already built a foundation of credibility for attacks any professional consumerist might choose to make against the industry.

Beyond this the verbal static of consumerism makes it increasingly difficult for the industry to get a right reading on the consumer. Now the industry must weigh the impact of consumerism on the consumer as well as translate the consumer's imperfect ability to state her wants. As

2/ U.S.D.A. Marketing Research Report 854, July 1969, p. 31.

any experienced marketer knows there is a vast difference between what someone thinks is good for someone else and what he thinks is good for himself.

Consumerism has yet another meaning for an industry sorely in need of developing a new image for its products. Because consumerism is concerned with consumer protection it tends to regard almost any change with suspicion. Protectionism most certainly is not the mother of invention. To the contrary it seeks to preserve the status quo. In addition the rationale behind specific issues of consumerism tend to discount non-materialistic values such as cosmetic, packaging or name appeals. Additives such as water and other extenders are often regarded as deceptive adulterations even though they may lower costs or enhance appeal. Concern of the consumerist with possible residues in meat from the use of various antibiotics and feed additives could well destroy much of what has been accomplished in both disease control and feed efficiency.

When we consider these possibilities we should recognize that consumer issues need not necessarily be based on fact. Many of our present day advocates of disaster demonstrate little respect for facts. They find much more to be gained from the establishment of fear and emotion. In recent years we have seen many regulations established out of the panic of fear. We have seen the banning of highly beneficial insecticides out of the fear that they may be harmful to someone. We have seen anti-DDT stickers displayed on the bumpers of people's cars whose only knowledge is based on rumor circulated by some novelist seeking to sell a book. And we have seen distinguished scientists questionably interpolating to man the results of massive over dosages administered to laboratory animals.

Today we are afraid of the air we breath, the water we drink, the food we eat, the cars we drive and even the toys we buy. The fears seem inversely related to the facts we have. Opinions thrive on the absence of facts. Advocates of disaster have learned how easy it is to enlist the passioned support of an uninformed public on almost any issue. It is all somewhat reminiscent of the social power centers established by the witchcraft of our forefathers. I belabor this issue because it identifies a pronounced change in our social behavior and being a product of the human mind it is totally unpredictable. Perhaps when we understand that the victim of consumerism is the consumer, that protection often does more harm than good, will we begin to temper our social rationalizations. In the meantime we will have moved well down the road of socialism.

Mobility of People: Another social change having impact on the pork industry is the mobility of our population. Being no longer restricted to either the fixed environment of the home or a locality our eating experiences at an early age are subjected to an ever growing variety. Many pork eaters today acquired their taste more out of necessity than choice. On many small farms the hog enterprise provided an economical, efficient and ready source of meat. But those who thus acquired their eating habits are being rapidly displaced by those whose tastes are cultivated by either institutional feeders or convenience foods. To date the impact of this change is being somewhat obscured by the fact that pork is regarded by

many to be more suitable to the diets of the young than the old. But be that as it may the foods being served by mass feeders exert a growing influence on our food eating preference and fresh pork is not commonly one of those foods.

This is of significance to the pork industry because many fresh pork products, as they are presented on the market today, are not well adapted to institutional requirements of uniformity, portion control and ease of preparation. Aside from considerations of the size of the institutional market its influence on both eating habits and product reputation is very significant. Future trends in the pork industry will depend in a growing degree on how well the industry in the future serves the very specific and exacting needs of the institutional feeder. Again it is easier and more rewarding to change the product than it is to change the requirements of the institutional feeder.

The Consumer of Tomorrow: In concluding my comments on the changing economic and social structure I can do no better than repeat a description I have given many times before of the changing consumer market for meat. I predicate this description on what I observe - not on what I think ought to be - not on what I hear consumers say they want - not on the rationalized idealisms being expressed by professional consumerists.

1. The consumer of tomorrow will want more services built into her meat products. She will have more money. She will be in a bigger hurry than she is today. Placing an increasing value on her leisure time she will be more concerned with budgeting her time than her pocketbook. Having satisfied her basic food needs she will turn her search to products that are easier and more convenient to prepare. While she will continue to complain about the high cost of food her actions in the market place will defy her words.

2. The consumer will insist on value rather than low price but the two will remain confusing in her mind. Even though she will have more money she will continue to abhor waste. She will avoid leftovers and turn up her nose at fat and bone. She will insist on portion control and she will avoid those products that vary widely in price. Price variability will remain the prime cause of a high price image.

3. She will insist that the meat industry give her meaningful and reliable brands for she is growing weary of inconsistent quality. Government grades will never be adequate to serve this need. Universal standards are the very antithesis of what she seeks.

4. She will demand greater variety and seek out those products that have an appealing look, taste and flavor. She will continue to turn away from those cuts that imply anatomy. She will seek and get a greater selection of price ranges, package sizes, flavors and brands. Proliferation of product in the market place will continue to frustrate store managers, buyers, sellers, economists and bureaucrats and do nothing but delight the housewife.

5. She will seek out those meat products having greater shelf life which she can keep on reserve and use on a moment's notice.

6. She will seek out prestige products and services that will set her apart from her fellow man.

7. She will insist on products that will permit her to apply her initiative yet be fail-safe for they preserve her self-respect as an artisan with food.

8. She will respond more to appeals of pleasure and enjoyment and less to health and nutrition. These latter attributes she will take for granted. Accordingly, her purchases will be impulsive, based on the alternatives she sees in the market.

9. She and her family will eat more meals outside the home -- experiences that will in turn introduce her to, broaden and expedite her demands for specialty and unique foods. Public eating places have always been an excellent media for new product introduction.

10. She will hold no blind allegiance to any industry, product or store. Experience will increasingly tie her allegiance to brands.

11. She will have no fear of food analogs or substitutes. Her only requirement will be that performance must be there.

12. And she will expect and get an increasing amount of illusionary protection and sympathy from government.

In addition to these changing consumer characteristics we will also face a new and changing set of requirements by all market handlers. While retailers will favor suppliers who will contribute to the solution of their space and labor problems, their demands, by and large, will be derived from those consumer characteristics which I have just described.

These are but a few of the major elements shaping your future market. They are both challenges and opportunities.