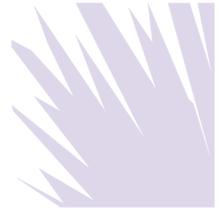


## Personal Reflections on the Economic Foundations of Vertical Restraints

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# PERSONAL REFLECTIONS ON THE ECONOMIC FOUNDATIONS OF VERTICAL RESTRAINTS

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I am very pleased that The Sedona Conference® will devote some time to discuss the validity of the economic foundations of antitrust.

I have spent the past 24 years working on channel management issues at 3M in the U.S. and Europe. I have had the opportunity to see from the inside the challenges businesses are trying to manage and how the antitrust/competition laws affect their decisions. I would like to share some of my personal observations.

As you will quickly observe, this is a literally a “thought” piece - my perceptions - not a researched review. I apologize for any misperceptions, but I hope that this adds something to the usually lively discussion at Sedona.<sup>1</sup>

## **My experience**

I studied economics in the graduate program of the University of Minnesota, 1974 - 1976. My professors included Leo Hurwicz (welfare economics), Thomas Sargent (macroeconomics), Neil Wallace (monetary theory), James Henderson (microeconomics), and Chris Sims (econometrics). I was a teaching assistant to Walter Heller, and I taught Economics 101. (Hurwicz was awarded the Nobel prize in economics in 2006; Sargent and Wallace were influential in the early development of the “rational expectations” macroeconomic models.)

I decided not to continue in economics and eventually went to law school at the University of Minnesota, where I studied antitrust with Dan Gifford.

I joined the Office of General Counsel at 3M in 1985 after four years in the litigation department of the law firm of Faegre & Benson in Minneapolis, Minnesota. At 3M, I worked closely with various 3M businesses in the consumer and health care markets. I have been able to actively participate in the development of marketing, sales, and channel strategies, including, for example, bundled rebate programs. It has given me an inside view of the complexity of the issues businesses must manage when delivering products and services to customers.

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<sup>1</sup> See generally, *The Economics of Governance* (Jan. 2005), [http://www.acaweb.org/annual\\_mtg-papers/2005/0107\\_1645\\_0101.pdf](http://www.acaweb.org/annual_mtg-papers/2005/0107_1645_0101.pdf); *Transaction Cost Economics: An Introduction* (Mar. 1, 2007), <http://www.economics-ejournal.org/economics/discussionpapers/2007-3>.

In 2004, I moved to Brussels where I have been General Counsel for 3M in Europe, the Middle East, and Africa. I have had the opportunity to work with attorneys throughout the region on a variety of issues involving marketing, sales, and channel management. As a result, I have had exposure to the interesting developments in the competition law of the European Union.

## Summary

Antitrust analysts fall into various schools that interpret the antitrust laws somewhat differently (Harvard, Chicago, post-Chicago). Regardless of their differences, they all use a mix of standard price theory, an outdated model of industrial organization, incomplete models of games, and “self-evident” principles to justify their proposed rules for regulating certain economic activities.

Unfortunately, this mix gives an inaccurate understanding of what is really happening among participants in an economy. Standard price theory explains the behavior of spot markets, where customers bring their demand curves, suppliers bring their supply curves, and equilibrium prices clear the spot market. It sheds no light on the complex interactions among suppliers, channel partners, and their customers. The old industrial organization model of vertical relationships is similarly inaccurate. The game theory models provide little understanding of the actual interactions, usually leaving customers out of the picture, and require price theory to explain the welfare benefits/losses of the game. And the “self-evident” principles are mostly tautologies.

Most economic relationships exist outside of spot markets where “price” does not give the economic agents the information they need to enable transactions to occur. Most economic activity looks beyond the instantaneous moment. Businesses make decisions based on their expectations of the future – success of new products, profitability of new plants, and training of employees. But the future is filled with uncertain events, and the partners to business transactions have interests that are not fully aligned.

In addition, people cannot adequately describe everything that needs to be accomplished because of uncertainty or inadequacy of language; they cannot collect, absorb, and use all of the information they need about the quality of their transactions; they do not know what information they can trust; and their counterparts have incentives not to disclose all of the needed information accurately. As a result, their behavior is best described as “bounded rationality”. That is, people try to behave rationally, but there are limits to their ability to do so.<sup>2</sup>

Where there is a well-defined set of contract laws, impartial legal systems, and effective enforcement, some of the issues related to “bounded rationality” can be resolved using contracts. But contracts require substantial resources to enter and enforce, and they often cannot adequately protect the parties. As a result, people use a variety of informal methods to verify the information they receive from another party. For example, consumers look to “brands” to help them efficiently evaluate the quality of products. Or they entrust their savings to an investment advisor with an outstanding reputation (and hope he will not spend 150 years in prison).

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2 See OLIVER WILLIAMSON, *MARKETS AND HIERARCHIES* (1975).

The issues caused by “bounded rationality” form the basis for much of the economic activity that we see, from the formation of firms, to the contracts defining the relationship among parties, to advertising and branding. Unfortunately, the standard economic analysis used in antitrust law basically assumes away the issues created by bounded rationality. As a result, we have a difficult time understanding why the parties develop certain relationships and therefore our rationale of why we are regulating those relationships is strained.

“Bounded rationality” has been part of the analysis of industrial organization since the 1970s. Consumer economics is currently using the methodology to explore the limitations of consumer rationality. However, a useful model of the market should analyze how all of the economic agents (including suppliers, channel partners, and consumers) organize to compete for resources, produce wealth, and allocate the value created, while confronted with “bounded rationality”. (To be complete, we would also analyze the bounded rationality of economists and government agents, that is, the naturally limited ability of economists and regulators to understand what they are regulating and the impact their regulations will have on the economy. It seems illogical to suggest that everyone is limited in their ability to collect, absorb, and use the necessary data, except policy makers.)

I believe that a full model of economic behavior based on “bounded rationality” provides support for a new set of “self-evident” principles that define fairness in the economy. The antitrust conclusions that we would reach from these “self-evident” principles would be the same as those reached by the Chicago School, but with a different rationale. In particular, vertical restrictions and resale price maintenance would be presumed to be “fair”, that is “procompetitive” regardless of the size of the supplier, channel partner, or customer, since they are needed to bring alignment among the parties.

### **A New Set of “Self-Evident” Principles**

- Firms compete, not products.
- Firms use all of their resources to get the business of their customers.
- The potential for profits drives innovation and efficiency, not competition.
- Social welfare improves over time due to the “surplus” value created by producers and channel partners.
- Consumers do not “create” value; they consume it.
- The economic agents (suppliers, channel partners, customers, consumers) struggle in the economy to allocate the surplus. There is no reason to measure social welfare based only on the portion of that surplus that goes to any one of those groups (or their subgroups); for example, consumers.
- Consumers play an active role in determining how suppliers and channel partners are organized as well as what goods and services are offered.
- Consumer preferences should be respected. Market share based on consumer preference (for example, brand loyalty or network effects) should not be a basis for describing a supplier as “dominant”.
- Aligning the interests of suppliers, channel partners, and customers is essential for a well-functioning economy. Efficient mechanisms for creating alignment (loyalty rebates, exclusive territories, marketing restrictions, maximum prices, etc.) should be presumed to be “pro-competitive”.

## Observations

### 1. Antitrust is a set of equitable principles used to justify regulation of certain economic activity.

We like to think of antitrust law as a set of legal doctrines, based on the antitrust laws. However, we know that the antitrust laws only vaguely define the activities we are regulating, certainly as it concerns single firm behavior and “vertical” restraints. We are familiar with the development of the antitrust law over the years and the significant changes that have occurred. Underlying those changes has been an evolution in what we consider “fair”.

At its heart, antitrust is a set of equitable principles that reflect our view of the “fairness” of how economic agents attempt to collect the value created by economic activity.

During the “golden age” of antitrust law (“golden” for the attorneys, in any case), antitrust law had a strong populist orientation. Big companies were assumed to be too powerful, and they used their power “unfairly” to harm smaller rivals or channel partners. Restrictions imposed by big companies represented an “abuse” of their power, and the antitrust law was applied to prevent that “abuse”.

Price theory gave an “economic” rationale for regulating big firm behavior. In a perfectly competitive market, firms need to be too small to influence demand or strategically eliminate competitors. Since big firms violated that principle, they must be “anti-competitive”. Price theory was not only a tool used to understand the market. It was also the gold standard by which markets were measured.

Over time, the populist approach gave way to an “economic” approach. Antitrust commentators noted that protecting the smaller rivals and channel partners was not always in the best interests of consumers. They identified a number of benefits that consumers should realize if big firms were permitted to impose restrictions that harmed their channel partners or smaller rivals.

The Chicago School developed an interpretation of antitrust law based on a new notion of what was “fair”. Instead of evaluating fairness on from the perspective of channel partners and smaller rivals, this school looked from the perspective of consumers. Big companies could take actions that harmed smaller rivals or channel partners, if the result ultimately provided a benefit to consumers, in which case, damaging competitors was “pro-competitive”.

One element of the Chicago School analysis is the “self-evident” principle that “efficient” firms should survive. The market works well when big firms force smaller firms to demonstrate their efficiency. Inefficient firms deserve to be eliminated from the market, and it is “fair” for more efficient firms to eliminate less efficient firms.

Another element of the Chicago School analysis is the “rule of reason”, which requires a close look at the possible benefits and harms that certain behavior by the big firms could bring to consumers. Firms that pass the rule of reason are considered to be acting fairly; their restrictions are “pro-competitive”.

Weighing the pro-competitive benefits of a transaction against the anti-competitive harm ought to be a simple mathematical exercise, and judgment should go to

the party with the greater weight. Unfortunately, competitive benefits and harms cannot be measured or compared, which means that the concept is not operational. We are left with a tautology: we deem actions “pro-competitive” if they are within our notion of how the market ought to work; if they are not, the actions must be “anti-competitive.”

While the concept of the “rule of reason” is technically unworkable, it has helped change the entire notion of what is “fair” in economic relationships. As a result of the concept, antitrust has effectively rejected the populist notion that big companies are bad and that the tools that they use are “abuses”. We now look more carefully at the actual nature of economic transactions. This approach makes more “sense” than the populist approach – but only if we accept that the conclusions of the doctrines are “fair”.

The economic basis for the Chicago School remains standard price theory. In a “competitive market”, firms compete and drive down prices. Lower prices increase consumer welfare. Therefore, restrictions that potentially lower prices to consumers must be a “pro-competitive”, even if they eliminate the competitors. In addition, as the “competitive market” drives prices down, inefficient firms are driven from the market, leading to an overall increase in efficiency.

The competition in the “competitive market”, as imagined by the Chicago School, may lead to the destruction of firms, but this competition is good: consumers pay lower prices and efficiency is improved. Moreover, using antitrust laws to protect inefficient suppliers or free-riding distributors would prevent the “competitive market” from providing the expected consumer welfare.

A useful development in the analysis of the Chicago School, compared to the previous “golden age” analysis, is the recognition that price theory does not fully describe the behavior of big firms or the interaction among channel partners in the production and distribution of goods and services. There has been a recognition that competition implies that there will be winners and losers and that the market will not deliver “efficiency” or “consumer welfare” if the antitrust laws protect the losers. There has also been recognition that some restrictions might be necessary to give channel partners the incentive to perform certain services without a “free rider” taking advantage of their work.

Not all antitrust commentators, however, have agreed that “fairness” extends to every action taken by large firms that potentially benefit customers. The Chicago School might accept as “self-evident” that the antitrust law is intended to “protect competition, not competitors”, but the post-Chicago School commentators wonder how competition can exist without competitors. In addition, the consumer welfare justifications used by the Chicago School to defend certain restrictions seem strained. The Chicago School justifies “exclusive territories” as needed to protect distributors who provide services from “free-riding” distributors, but we also see them used where the service justifying the restriction seems hypothetical.

The post-Chicago School commentators demonstrate with simple game theory models that large firms are able to seize an “unfair” advantage over smaller rivals and channel partners, which could result in higher prices to consumers. For example, it could be “unfair” for a large, multiproduct firm to offer a bundled rebate that cannot be matched by the smaller, equally efficient, one-product rival. If the smaller rival is eliminated, the larger firm can raise prices for at least that product. Since consumer welfare is based on the low price of an individual product, the resolution of the game would harm consumers and must be considered “anti-competitive”.

The post-Chicago School is also based on standard price theory. It returns to the idea that firms in a “competitive market” must have enough competition to force prices down. If large firms make it difficult for smaller firms to be a competitive threat, the “competitive market” cannot be “competitive”, and we would not expect to obtain the benefits of consumer welfare or efficiency predicted by the Chicago School. In a “competitive market”, we would expect to see prices fall to a point where “excess” profits are eliminated. But we see that large firms maintain large profits. We have to assume then that the large firms are manipulating the market to the detriment of consumers.

The debate between the Chicago School and the post-Chicago School will continue as each school works to define what behavior is “fair” in the marketplace. Their will debate will be based on a common platform. Each will use standard price theory to demonstrate whether the actions of large firms conform to the requirements of a “competitive market” and will therefore result in low prices and efficiency, promoting “consumer welfare”.

Unfortunately, the “competitive market” defined by standard price theory is inadequate for understanding economic activity. As a result, we do not understand what we are regulating and why the regulation is overall beneficial. The debate will go on, but neither school will have a basis for its conclusions.

## **2. Price Theory does not describe the economic transactions we are regulating.**

Price theory remains the core of our understanding of economic markets. In fact, the “competitive market” that it describes is not only our explanation of how markets work, it is our golden rule of how markets should work.

The basic assumptions of the price theory are that

- All parties have complete information, which is costless to obtain and process.
- Transactions are costless.
- There are only sellers and buyers, none of whom are big enough to affect overall supply or demand.
- The aggregate of the demand of all buyers can be represented by a downward sloping demand curve (demand falls as prices rise).
- The aggregate of the supply of all suppliers can be represented by an upward sloping supply curve (supply increases as prices rise).
- Sellers can be represented by a production function, in which marginal costs first decline then increase as more units are produced.
- The price where the supply curve and demand curve meet is an “equilibrium” price. It clears the market; that is, suppliers do not want to sell additional units and buyers do not want to buy additional units at that price. And it occurs instantaneously.
- At the equilibrium price, the price will equal the average cost of an efficient firm. That is, there will be no firms that operate with higher costs, and there will be no “profits”.
- The equilibrium of the model is instantaneous, static, and partial. That is, the model only looks at the supply and demand at an instant in time. It does not examine how supply and demand evolve over time or how firms plan investments for the future. And it only looks at one “market” at a time; it does not look at the effect the change in one market has on another.

This model explains the behavior of spot markets, where customers bring their demand curves, suppliers bring their supply curves, and equilibrium prices clear the market. In the model, there is no need for firms to innovate, no need for firms to invest, no need for firms to advertise, no reason for firms to expand, and no opportunity for firms to generate profits. Since all information is known by all parties and all activity is simultaneous, there are no future contingencies and no need for contracts.

In short, the model does not explain most of the economic activity that we see.

Most economic transactions take place outside of spot markets. Price does not provide all of the information needed for a transaction to occur. Contracts are an obvious example of relationships that exist outside of the “competitive market”. They define aspects of a relationship that the market cannot define. And often contracts cannot provide all of the direction needed to maintain an on-going relationship among economic agents. Suppliers form relationships with the customers and their distributors who have a role in the transactions. Consumers develop relationships with the brands they prefer and with the retailers who sell the products with those brands.

In the world of antitrust, we have turned the relationship between theory and reality on its head. We have assumed that standard price theory appropriately describes economic relationships. Instead of using reality to question the validity of the model, we use the model to question the legitimacy of reality; instead of asking why the model does not predict what we see, we question why reality does not match the model.

We will examine some aspects of price theory that play a significant role in the debate among the antitrust schools.

### **3. The Competitive Market**

The gold standard of antitrust economic analysis is the “competitive market” described by standard price theory. We assume that “competitive markets” will behave as the model describes and that markets that do not behave this way are not competitive.

When we examine the market described by the model, however, we discover that it describes a market in which there is **no** competition. “Price” is all that firms and their customers need to know in order to transact their business. Firms can sell their entire output without marketers, sales reps, advertising, promotions, or incentives. Buyers can purchase the entire quantity of the product that they want to purchase at that instant (at the equilibrium price).

In this world of “perfect competition”, there are no differentiated products, so there is no need to innovate. The quality of the products in the market is identical, and consumers never have to consider the source of their products.

Since the products are identical, and there is no question about quality or delivery, there is no need to educate buyers about the quality or performance of the products. There is no need to promote the products. Since firms can sell all of their output at the market price, there is no need to advertise. Since there is no future, there is no need to invest. Since prices will be driven to a level where there are no profits, it is not clear why investors would invest in an economic enterprise. There is no need to form relationships. There is no need for contracts. There is no need for all of the economic activity that we take for granted in the economy.

The question, then, is why this market held as the gold standard for economic activity? Why do we measure real competition with this model of “perfect competition”?

It is easy to see why price theory does not predict most of the economic activity that we see.

- Accurate information is often impossible to obtain. Collecting information, digesting it, and using are very costly. Complete knowledge assumes no uncertainty. Price does not give adequate information about the products (for example, quality, availability) needed by the parties in the transaction. As a result, they develop relationships, for example, with contracts, branding, or advertising.
- Negotiating and enforcing transactions are costly.
- There are multiple levels of economic agents, including distributors and retailers whose activities do not fit within the model.
- Where channel partners share customers with suppliers, it is not clear whose demand is represented. If the channel partners establish the price of the goods sold to the customers, it is not clear what demand curve is seen by the suppliers. Similarly, when channel partners set prices, they can alter the supply curve in ways that are against the interests of the suppliers.
- Describing an organization as a production function misses the reason why organizations exist, which is to solve problems created by “bounded rationality”.
- Most economic transactions are not about instantaneous transactions, but relationships that develop over time. These relationships include loyalty to brands (including the brands of channel partners).

#### **4. Firms Compete, Not Products**

The firms in the perfectly competitive market are narrowly conceived. They are not organizations; they do not have issues with organizational alignment; they do not have issues arising from the difficulty in communicating across functions; there is no hierarchy; there is no intra-organizational competition.

Firms are represented simply as “production functions”, usually of a single product. They do not easily provide services with their products – it would be difficult to include the resources needed to provide service in the production function.

Since the production function is two dimensional (price and quantity of a single product), antitrust analysts assume that competition among firms is two dimensional. Firms compete by offering a product at a price. This quickly reduces to single products competing on the basis of price. Antitrust analysis is full of references to the “most efficient” producer of a product or the producer of a more innovative product.

Since the firm is represented only in two dimensions, it is not possible to analyze other sources of efficiency. Organizations are difficult to manage and the larger they become, the more difficult they are to manage. The nature of a firm has been described as a loose aggregation of hostile tribes. Aligning those “tribes” takes skill and resources. When they are aligned, they are capable of acting as a powerful organization, able to develop and deliver a large bundle of products and services globally. They are able to develop a reputation for consistent quality that reduces the resources that customers need to search for appropriate products.

When we imagine the firm in more than two dimensions, we understand that firms compete, not products. And that the firms will use all of the resources at their disposal to increase their value to their customers.

Let's consider the retail market to illustrate these points. Suppliers that understand the basics of the retailer's business model can design programs to increase the total value of what they offer the retailer. The first step is to understand the relationship between the retailers and their customers. Retailers provide value to consumers in a number of ways:

- Provide buying opportunities to consumers
- Identify products to present to consumers
- Market the products
  - Select the products
  - Promote the products
  - Place the products
  - Price the products

While providing these services, retailers try to maximize their economic profits using various tools:

- Increase margins  
The importance of margins to the retailer is obvious.
- Increase turns  
The importance of turns is less obvious to people outside of the retail market. Increasing turns allows the retailer to generate greater returns on a fixed amount of capital. For example, imagine that a retailer purchases products for \$100 at the beginning of the month and sells them at the end of the month for \$101. Its margin is about one percent. However, the retailer can take the \$101 it generated in the first month, save \$1, buy products for \$100 at the beginning of the second month, and sell all of the goods for \$101 at the end of the second month. If the retailer is able to do this throughout the year, it will have generated \$12 of profit from its initial investment of \$100, an annual return of 12 percent.
- Increase other sources of income  
Retailers recognize the value that they bring to the real estate they occupy, in particular because of the flow of people they can generate. They are able to charge others, either the suppliers or other third parties (banks, florists, coffee shops), for using that space.
- Decrease cost of capital employed  
As with turns, the economic profit of the retailer increases if it can generate the same returns with less capital.
- Decrease cost of operations  
Strong retailers demand support from their suppliers in reducing the cost of operations by funding advertising, by enforcing delivery schedules, and by requiring suppliers to integrate with the retailer's electronic ordering and systems.

By understanding how retailers generate economic profit, suppliers are able to make themselves more valuable to the retailers:

- Increase margins
  - Lower costs. Simply lowering costs will not necessarily increase margins, since the retailer controls the resale price.
  - Increase recommended resale prices. Similarly, increasing recommended resale prices will not necessarily increase retailer's margins, unless the supplier is able to enforce a minimum resale price.
- Increase turns
  - Lower prices. As with lower costs, lower prices from the supplier to the retailer will not necessarily increase turns, since the retailer sets the price of the supplier's products and all other products it sells. Moreover, simply lowering the price of one supplier's products does not necessarily result in increased sales for the retailer. It might only shift sales from one supplier to another. And if customers associate high price with high quality, raising prices might increase turns.
  - Better products
  - Advertising/promotions
  - Customer appeal
  - Category management
- Other sources of income
  - Slotting fees  
Slotting fees are essentially a rental fee that retailers charge suppliers for the privilege of appearing on the retailer's shelf. The retailer can impose them when the power of its brand in attracting customers is more valuable to the supplier than the power of the supplier's brand is to the retailer. It is an example of the paradox of the beekeepers and orchard owners. Simply, beekeepers need to place their hives in an orchard to collect honey; therefore beekeepers will pay orchard owners to place their hives in the orchards. On the other hand, orchard owners need bees to pollinate their orchards; therefore orchard owners will pay beekeepers to place the hives in the orchards. Whether beekeepers pay orchard owners or orchard owners pay beekeepers will depend on the relative bargaining power each has.
  - Rebates
- Decrease cost of capital
  - Payment terms  
We can see the power of payment terms if we modify the story we told for increasing turns. Imagine that the retailer receives the products at the beginning of the month, but does not pay for the products until the end of the month. The retailer would not have to finance the purchase of the products – it can generate profit without capital costs. Moreover, if the payment is due at the end of the second month, the retailer could put the \$101 it received for the product in the first month into a money market fund for a month and earn interest on it. By the end of the year, it would collect 11 months of interest on the \$101 that it was able to invest each month before paying for the goods, plus the 12 percent.
  - Inventory Management

- Decrease operational costs
  - Ordering
  - Delivery
  - Inventory management
  - Reduction of errors
  - Additional services, for example, preparing planograms

It should be clear that the retailer is not solely focused on product by product price competition. The retailer will prefer working with suppliers that provide it with the best overall economic profit, using all of the tools available.

Let's consider how this would apply to bundled rebates. Obviously, a firm that is efficient in organizing the development, manufacturing, and marketing of many products is able to use that ability to offer its entire bundle of products to get the business of their customers. The bundle might be so attractive to the retailer that the producer of only one of the products cannot compete, even if it is the most efficient producer of that product.

However, the larger firm, if successful, has proven that it is the more efficient supplier of a large bundle of products. Efficiency from the perspective of the retailer is not limited to a single production function, but to the total value of what the supplier offers.

The producer of a single product can compete in a number of ways. Since it is smaller and more focused, it should have lower organizational costs, its decision making time should be shorter, it should be more flexible.

However, the "competitive market" does not require that the highly innovative and efficient single product firm continue as a single product firm. Customers might prefer the total value of a large bundle of products to the benefits of the sole product the single product firm produces, which gives the large, multi-product firm a competitive advantage. If that is the case, the single-product firm may join with other firms, either through alliances or mergers, to create its own bundle. Of course, it might discover that it does not have organizational skill or acumen to successfully manage a large bundle of products, which is a competitive shortcoming when it is the measure used by the customers. It would then be fair to say that the larger company is the more efficient supplier of the bundle.

## **5. Economic Profits**

Economists have observed that the predicted outcome of the standard price theory is absurd: equilibrium prices fall until price equals marginal cost equals average cost, that is, a point where the suppliers earn no profit. This, of course, is not what we see in "real life", nor is it a desirable outcome. No one would invest in a business that could not earn profits.

Economists solve this dilemma by defining "economic profits" (as opposed to accounting profits) to include "opportunity costs", that is, the returns that could be gained from the next best alternative, in the production function.

Unfortunately, there is no basis for the definition. It seems obvious that, over time, industries that do not generate adequate returns will lose their attractiveness. Either investment will decline or the industry will consolidate, permitting the remaining firms to charge higher prices and cover their opportunity costs. (Alternatively, the firms will

collude to increase prices to achieve the same result.) However, this process can take years, even decades. It is not a cost that should be considered in an instantaneous, static, equilibrium model.

Moreover, opportunity costs are subjective. Different firms have different expectations for returns. But in that case, a more “efficient” producer can drop out of the market because it has higher expectations for returns. And, as a result, our model of “perfect competition” does not generate the most “efficient” producer. (We should add that investments in research and technology, software development, and clinical trials are also not reflected in the production function, nor are investments in quality and safety.)

In the spot market, firms can remain in business forever selling at prices that equal average cost. It is in the nature of a spot market that they do so. Moreover, since all markets should be “competitive”, the profits of all firms – across all spot markets – should be zero, that is, there are no better alternatives.

From a practical perspective, it is not clear how economic profits would be measured. Typically, we ask whether prices are “competitive” by looking at prices when markets are “competitive”. And we subtract manufacturing costs to determine the profits in the industry. We do not ask if those prices include “opportunity costs”. And how could we? What would the appropriate opportunity cost be?

This is a particularly difficult issue for industries that require a significant investment in research or capital. Taking some examples:

- In the oil industry, once a well begins pumping oil, the cost of continuing to pump is low. However, the price of a barrel of oil should depend on its replacement cost, not the cost of pumping. But, the cost of exploration and discovery of replacement reserves and returns on investment in the installation of oil wells in difficult environments are uncertain. Large investments can be made in exploring regions that are dry. These investments, whether successful or not, have no impact on the spot price of oil. In the spot market, the price reacts as predicted by standard price theory: suppliers and customers reach a price that clears the market. But if that price does not cover the cost of exploration, today’s low price will fail to provide an incentive to find replacement reserves.
- Similarly, in the pharmaceutical industry, the significant costs of the industry are in the development and testing of new molecules. The investment in research and development runs in the hundreds of millions of dollars, with little likelihood for success. Once a molecule is appropriately tested and determined to be safe and effective, the cost of actually producing the molecule is minimal. If left to the spot market, the price of pharmaceuticals would be driven below the level needed to cover the costs of the research and development.

The theoretical fallacy is that we have assumed that the production function describes a firm for situations outside of spot markets. As a result, we naturally conclude that, in a “competitive market”, prices will equal average cost. If firms are able to generate “excess” profits, it is evidence of a market failure, and antitrust needs to remedy the problem.

However, all of our “real world” experience tells us that this cannot be true, nor do we want it to be true. Profits are the incentive for firms to innovate and become more efficient.

## 6. Low Prices

Standard price theory leads antitrust analysts from all schools to identify low prices with consumer welfare.

A fundamental problem rests in the assumption that our social goal should be the increased consumption of goods at low prices, and it is not clear why this should be the goal pursued by governmental agencies.

We have already considered the problem that capital costs and the costs of research and development will generally not be covered by a spot market price. As a result, if prices remain at the level of spot prices, industries that require significant long-term investments will not be adequately rewarded. While the standard price theory relies on firms instantaneously leaving the market without cost, in a world of bounded rationality, we would expect the process of firm elimination to be long and painful, and the more capital intensive the industry is, the longer the process will take. We could expect several possible outcomes, including the decline of the industry as a whole, as investors and bright employees look for more profitable industries, the consolidation of the industry and increase in prices, the development of cartels.

While we have considered capital-intensive industries to demonstrate that “spot prices” are not likely to cover the actual costs of operating a business in the long run, the same statement could be made for all industries. The costs of environmental protection, occupational safety, food safety, and safety of air travel, etc., would not be covered by prices in the spot market. Similarly, the spot market is unlikely to reward companies for providing consistently high quality products and services.

An area of investigation in consumer economics is the complex pricing structures that we observe in highly competitive consumer industries such as airlines and telephone service. In each, competitors tend to lead with very low advertised prices, covering very low service levels, to which additional services can be added by the consumer for additional charges, leading to a maze of offerings which are difficult for many consumers to understand. Standard economics would assume the multiple choices are good for consumers since they can choose what they want. Modern consumer welfare analysis uses the bounded rationality of consumers to demonstrate that on average consumers are worse off from having complex choices – they are unable to compare the complicated offerings and often choose a more expensive package with unneeded services.

But looking from the supplier side, it seems likely that competition has driven the advertised price – the spot price – to a level below what is required to cover the additional services. The low cost airlines now need to rebuild the cost of services back into the price of flying, without giving up the “spot” price; similarly with phone companies, health care insurance, mortgage financing, and hospital supplies distributors. (Anyone who worked in the hospital supplies industry in the 1990s will recall the impact of the hospital group purchasing organizations on distributor margins, to the point where their revenues only covered order fulfillment. All other services had to be provided at extra charge.)

In some of these cases, consumers have little opportunity or ability to collect the necessary information and compare the offerings. In areas such as mortgage financing and health care insurance, the risk of a consumer making the wrong choice has significant social implications, suggesting that these are areas where consumers need regulatory protection from the complex pricing systems generated in the market.

We should take the analysis a step further. As we mentioned, the model of “perfect competition” is static. It does not take any interest in the future; there are no incentives to invest or innovate. The primary incentive for those investments, of course, is the prospect of greater profits in the future. This is clearly recognized under patent law which provides a limited monopoly to patent holders in return for making innovations public. There is an interesting hostility between the antitrust community and the patent community. Antitrust law considers monopolies and monopoly profits as potential problems; patent law sees them as one of the driving forces creating wealth in the economy. While antitrust claims that its model of “competition” creates innovation, it is difficult to see how. Ultimately, the lure of profits is the incentive necessary for investment in innovation, and the antitrust model of competition provides no incentives for that investment to take place.

## **7. The traditional industrial organization diagram**

Every antitrust attorney knows how to diagram a vertical market. It requires three boxes, aligned vertically. The top box is labeled “manufacturer”; the middle is labeled “distributor/retailer”; the bottom is labeled “customer/consumer”. Manufacturers sell their products to the “distributor”; they have no contact with the customers. Between the manufacturers and distributors, manufacturers have all of the power; they dictate the terms and conditions of their relationship. They are best described by the populist terminology of the “golden-age”: they attempt to use their power to limit competition. The distributors sell the products to the customers. Their business model is simple: prepare a catalog of products with prices and take orders from the customers. They do not have a strategy. Consumers have the least power. They are passive participants in the economy. They are offered products by distributors, and they buy them according to their demand schedule.

We have already mentioned that price theory does not shed light on the relationships among suppliers, channel partners, and customers. The vertical diagram traditionally used in antitrust has the same defect – it does not help us understand the relationships among the participants in an economy.

## **8. Consumers**

While current antitrust analysis has consumer welfare at the heart of its analysis, it is not clear that it gives consumers a role in economic transactions, other than looking for low prices. In the traditional industrial organization diagram, the customers are passive – they do not have a strategy and do not influence the transactions. Similarly, the games used to demonstrate the anticompetitive nature of loyalty rebates typically include two manufacturers, but customers (whether the distributor/retailers or consumers) have no strategy other than obtaining low prices.

We could ask how our view of the economy might change if we were to draw the industrial organization diagram in reverse, with consumers at the top, dictating the shopping environment they wish to shop in, as well as the goods and services they wish to purchase, to the distributors/retailers who translate the consumer demand into orders to suppliers.

Suppliers and channel partners, of course, understand the important role that consumers play in dictating what products and services they offer and how they offer them. As Sam Walton noted, “There is only one boss. The customer. And he can fire everybody in the company from the chairman on down, simply by spending his money somewhere else.”

Understanding the consumer market is difficult because it is a mass market. It operates through the “laws” of large numbers. Individuals acting in their own interest, when combined with similar individuals, drive the organizational structure of the market. And, while standard price theory assumes that consumers are homogeneous, they obviously are diverse. Different consumers want different bundles of goods and services; they also want different shopping experiences. The assumption has traditionally been that no individual consumer can affect market conditions and therefore they do not. This, of course, is the equivalent in political science of stating that no individual affects the outcome of an election. In a narrow sense, the statement is true. But it misses the bigger picture: mass choices, made by individuals for individual reasons, affect the broad outcome of elections and mass consumer markets.

Suppliers, of course, recognize that consumers can fall into groups and they spend a lot of resources attempting to segment the market by understanding those groups and how consumers associate with different groups over time. They invest heavily in bringing a specific message to the group they want to communicate with. They are only successful, however, when a “large enough” group of consumers accept the message.

Given the nature of mass markets, individual consumers cannot always get what they want. Their ability to demand a bundle of goods and services is limited by the choices made by all other consumers. This leads to the possibility of different groups of consumers dictating to other groups of consumers what bundles of goods and services will be available, and how and where those goods and services will be offered.

A group of consumers might prefer to pay low prices at a large discount store. Another group might prefer to pay higher prices at small, family-owned shops. However, the family owned shops can only survive if enough consumers purchase there, which might include a number of consumers who only want low prices. If the large discount store attracts enough of the price-sensitive consumers from the family owned store, the family owned store will fail. All consumers will be forced to purchase products at the discount store. The outcome will be a benefit to the consumers who want low prices, but a loss to consumers who wanted to purchase at a local family owned store. We cannot state that this is an unambiguous gain to consumers or society in general.

From the perspective of consumers who want to purchase at small local shops, suppliers who impose resale prices on their retailers are, in fact, acting on their behalf. With retail prices fixed, price does not differentiate the large chain retailers from small family owned shops. Rather, convenience (assortment, parking) or customer intimacy will play more important roles. While customers who only want low prices are harmed, customers who want to purchase at small local shops benefit (as do the shopkeepers who serve them). Again, we cannot state that there is an unambiguous gain or loss to the consumers.

We see a similar situation among passengers on airlines. One group of passengers simply want the cheapest flight from Paris to New York City. They do not need a lot of airport infrastructure to move their baggage, coordinate schedules, etc. Another group might want to travel from Marseilles to Las Vegas without having to pick up luggage or leave the airport while traveling. They too will have to fly through Paris and New York

City, but their needs are very different. This group needs the extra infrastructure to coordinate flights, handle baggage, etc., as well as the additional aircraft that enables them to travel to different locations.

A full-service airline might be able to provide the service demanded by the group of customers traveling from Marseilles to Las Vegas, but only if enough passengers fly its planes from Paris to New York City – the plane needs to be full to cover all of the costs of the aircraft, infrastructure, and people required to provide this level of service. A budget airline, of course, does not have the same requirements for aircraft, infrastructure, and people, and can offer low cost flights just between Paris and New York City.

If the low-cost airline is able to attract enough price-sensitive customers from the full-service airline's connection between Paris and New York City, the full service airline would be unable to provide the full service to passengers traveling between Marseilles and Las Vegas. This would benefit the price sensitive passengers who only want to travel from Paris to New York City, but would harm the passengers who want full service. The social gain is ambiguous. In this situation, we would expect the full service airline to use various loyalty schemes as well as its stock of aircraft to keep as many of its passengers as possible. In the end, the full-service airline would be acting on behalf of the passengers requiring full service. If the full-service airline has enough resources to keep enough of its price-sensitive passengers on its flights, the low-cost carrier would fail, possibly harming the passengers who are only looking for low prices, but benefiting the customers who want full service. Again, the benefit or harm to "consumers" is ambiguous.

## 9. Consumer welfare under the curve

In addition to the issues of consumer welfare caused by the diversity of consumers there is a difficulty with the measure of "consumer welfare" typically used in antitrust analysis.

Economists use the area under the demand curve as a measure of consumer welfare - the larger the area under the curve, the larger the benefit. Since lower prices increase quantities demanded, the area increases with lower prices. As a result, antitrust has developed a self-evident principle that the ultimate goal of social welfare is low prices.

A practical problem is that consumers do not equally share in the welfare gain depicted under the curve. Consumers who only purchase products at the lower price have the benefit of purchasing product at the price they are willing to pay. The consumers who experience the benefit are those who would have gladly paid more. And there is no mechanism for the latter group of consumers to share the gain with the former.

We seem to forget that every point on the demand curve represents a benefit to consumers. At every price point, the consumers who purchase the product are happy with their purchase. Consumers who do not purchase because prices are too high have made the calculation that the product is not worth the price that is charged – they have better things to do with their money.

In fact, if we believe the demand curve really represents "consumer welfare", the best outcome for all consumers would be a firm that perfectly discriminated among all consumers. Every consumer would be able to purchase the product at a price they considered appropriate. While no consumer enjoys a "surplus", every consumer is happy with the bargain.

Looking at this issue more broadly, we need to question why “consumer welfare” should be our measure of the social benefit that we use to judge economic activity. While consumers generate demand for the added value, they do not create it. It seems odd to measure the social value of economic activity by measuring the amount of value that consumers capture. Similarly, a welfare function that only measures the value that channel partners are able to capture at the expense of large firms, as antitrust did in the “golden-age”, is equally flawed. Clearly, suppliers have a major role in creating value for customers. The incentive for them to continue creating value is the share of that value that they can capture. But the analysis antitrust currently uses does not seem to recognize this obvious point.

Economic activity not only allocates resources to produce goods and services in a way that leaves everyone better off over time, it also allocates the value created by economic activities among the various participants in the economy. Suppliers, channel partners, and customers are constantly struggling to redistribute the value. Any analysis of economic activity should recognize the legitimacy of each group and sub-group to take actions which allocate to itself a greater share of the value created in the economy and to establish rules of “fairness” that are neutral with respect to the outcome of the allocation.

### **10. An Alternative Model**

If Standard Price Theory provides a useful model of a spot market, is there a model that describes markets where relationships matter?

I believe that elements of a model have been developed, but that they have not been brought together in a complete model yet. Oliver Williamson, in his book *Markets & Hierarchies* (1975), describes an alternate model of industrial organizations that is explicitly based on bounded rationality. Similarly, consumer economists are using bounded rationality to develop a deeper understanding of consumer behavior. (DG SANCO, the consumer protection agency of the European Commission, is looking at these models to identify areas where greater regulation is required.)

Williamson identifies a number reasons why rationality is limited, beginning with the limited ability of people to effectively collect, digest, and make use of accurate information. These activities have real costs associated with them, and are often simply impossible. The quality of the information we collect is often suspect. A related problem is the ability of people to communicate what they know, even when they want to. We only need to consider that there are some things that are easier to learn by doing.

Uncertainty is a key factor in the analysis. We live in a world of different types of risks. Some are measured as known probabilities and can be insured against. Others are random and uninsurable. And some are in between – they might be measurable, but they are not insurable. A function of economic activity is to shift the allocation of risks and uncertainty among the participants in the economy.

Bounded rationality, uncertainty, and the inability to have full confidence in the quality of information one party gives to another, have significant effects on why and how firms are organized. These factors explain why certain transactions take place in a “spot market”, why others take place through contract among parties, and why others are simply taken out of the market and placed in a hierarchy. The fact that firms are in a continual process of integrating and outsourcing functions demonstrates the on-going management of the issues created by bounded rationality.

However, in *Markets & Hierarchies*, Williamson only examines the “supply” side of activity. For a complete model, we need to understand the behavior of subsets of suppliers, channel partners and consumers.

Recent research in consumer economics uses “bounded rationality” to describe the limited ability of consumers to make rational choices, and the ability of firms to take advantage of that limited ability. It is leading some regulators to question whether there are certain products/services where the complexity is too great for consumers to manage, with the conclusion that many consumers would in fact benefit from less choice, and with the next conclusion these consumers would be better off if regulators limited the choices available to consumers.

Of course, we already do this in many product areas: we do not permit hospitals to choose to use inexpensive, but unsafe, medical devices or pharmaceuticals; we do not permit workers to choose to work with ineffective safety equipment. It would not be difficult to imagine that the welfare of some consumers could be generally improved by limiting the types of credit available to them. For example, we might conclude that “too many” consumers do not make credit decisions often enough to understand the risks that they are taking and that the downside of those risks are too great to allow uninformed consumers to take. In which case, it might be appropriate for a consumer protection agency to limit the choices available to consumers.

## 11. Brands

One topic of consumer economics that deserves special consideration is the existence of “brands”. As we mentioned, standard price theory has no explanation for the existence or value of brands.

To appreciate the value of brands, we only need to consider the difficulties we would confront in a world without brands when selecting which products to buy. We would go to a shop where we would be confronted by a shelf lined with products with generic names and no indication of the source of the product or its quality. We might try a product and decide we like it. We would return to the store to purchase the product again, but there is no assurance that the product we purchase will be the same as the product we purchased previously. We might want to search for the original product in other stores, but we have no way to identify the product we are looking for. We would have no certainty that the products we purchased would ever be what we really wanted. We would become totally passive purchasers who have no influence on the source or “quality” of the products we buy.

We quickly understand that “brands” are a tool used by consumers to overcome the limitations of their “bounded rationality”. Product quality varies, not only between well-made and poorly-made, but also performance, look, feel, smell, taste, etc. Consumers want to know if the product they are purchasing meets the requirements that they expect each time they purchase the product. Obviously, consumers cannot test each product for quality before using it. Instead, they use “brands” to help them identify products that meet their requirements for “quality”. By developing a “brand”, the brand owner delivers valuable information to the consumer, value that the consumer is willing to pay for.

We should note that “private label” brands have the same origin. “Private label” brands are simply the brands of well-known companies who outsource the production of products, but that customers trust for an expected level of quality. Where the private label

brand is the brand of a retailer, the retailer has taken the responsibility to ensure that its “branded” products meet the quality expectations of its customers.

In addition to identifying the source of a product, brands serve another function, which is to allow consumers to self-select a group (image) they want to be members of. Desire to be a member of a group is instinctive among people and consumption of certain products is one way that people express their membership. (It has been observed that the Goth tribe is a group of young people who demonstrate their distaste for conformity by dressing alike). The statement that a brand allows people to make about themselves has value above and beyond the product that is branded. A sweatshirt might be a sweatshirt, but a sweatshirt with a favorite sports team name is a statement. The decision of a consumer to identify with a particular brand should be respected. And the creator of the brand should be entitled to collect the full value that consumers place in that brand.

## **12. Consumers and Market Power**

We previously discussed the role of consumers in determining the bundles of goods and services offered by retailers, and how and where they are offered. Ultimately, a “brand” is successful because consumers have determined that the “brand promise” of the brand has value. Suppliers and their channel partners invest significant resources to influence consumers in evaluating their brands, but consumers have the final “vote”. A supplier that acquires significant market share because its brand is highly valued by consumers does not have “market power” – its “power” exists only because a large enough group of consumers have selected the “brand”. The supplier will quickly lose its market share if it fails to continually convince consumers of the value of the brand.

We have a similar situation when network effects make a product or service more valuable as more consumers use it. The supplier whose product benefits from the network effect has power only because the consumers value the benefits of the network effect. Attempts by regulatory agencies to inhibit the network effect reduce the value of the network to the consumers who benefit from it. As we previously discussed, there might be a group of consumers who would benefit from limiting the benefits of the network effect, but the effect on total welfare is ambiguous.

## **13. A hypothetical illuminating the need for vertical restrictions based on bounded rationality**

Let’s say we develop and manufacture high-performance supplies that are used in the manufacturing processes of other companies. These products might seem simple but in fact involve significant expertise in materials sciences to develop and produce them. Thanks to our innovative engineers, we are experts. We are able to charge a premium price for these products, and because of our production skills, we make significant profit margins.

Our employees are motivated by the opportunity to use their skills to help solve interesting problems for our customers. They also enjoy the higher than average compensation and benefits packages that can be offered by a highly profitable company. As a result, we are able to attract very bright new employees to bring new ideas to our labs and plants, and we feel confident that we will continue to develop useful new products and services that are highly valued by our customers.

Our shareholders, of course, are motivated by our high margins. We have no trouble attracting investors or creditors when we need to fund new projects. Since we care about our margins, we will not make products if we cannot obtain significant profit margins. We will invest our money elsewhere, **even if we are the most efficient producer of those products.**

We simply do not have expertise in the development and production of our products. We also have superior organizational skills. It is not easy coordinating the activities of thousands of people, working in different functions, in different countries, with different objectives. It has been observed that a corporation is a loose aggregation of hostile tribes. It is difficult to get all of its tribes aligned and working cooperatively. And as it becomes harder to manage, the larger and more diverse it becomes. Transmitting information and establishing direction requires significant effort and overhead. The organization necessarily becomes more bureaucratic than small organizations.

Though it takes a lot of skill and acumen to manage a large organization, when the organization is effective, it is capable of creating a diverse array of products and services that it is able to deliver to customers around the world. Let's say that we have learned to manage our organizations very effectively, and we work hard to transmit knowledge and skills among our employees. Since we have these organizational skills, we have an excellent record in working with customers, developing solutions for them, and delivering the right products and services at the right time. We have developed significant credibility with many customers who have come to trust our ability to deliver the products and services that we have promised and we help find solutions to their problems.

As a supplier of premium priced products, we need to convince our customers (the people who use our products) that the superior performance of our products and services outweighs the additional cost. This requires a relationship with the customer. The customer must have confidence that our performance story is accurate, especially if they need to change their process to take advantage of our superior performance. Once they are convinced that we are credible and that our products provide the expected superior performance, they are likely to pay the higher price that we would like to charge for our products. Over time, if we are successful, our "brand promise" will help maintain our credibility, and we can spend less time trying to convince our customers to believe us. In that case, the "brand" gives the customer significant efficiencies in searching for appropriate products and gives us a very valuable asset.

Of course, there are other companies who would also like to sell products and services to the same customers. Some of these companies are large, bureaucratic organizations like ours that produce a wide variety of products and services, though not necessarily equivalent with ours. Other businesses are small, nimble companies that supply a very limited number of products.

All of these businesses will attempt to persuade customers that their **total** offering of products and services would provide more value to the customers than ours. They will also attempt to demonstrate that their organizations have as much credibility in providing products and services as ours.

We would expect that larger businesses like ours, will have an advantage in organizational depth and breadth, in terms of products and services and geographic coverage, but will be slower and more costly, since they need a large bureaucracy to manage the organization. The smaller businesses often lack the bundle of products and services and

the organizational depth and breadth of the larger businesses, but they should be quicker, more nimble, and less costly than the larger businesses.

Regardless of size or complexity, the firms will use their own advantages to become the preferred provider of the products and services they can offer. It takes skill to persuade a customer that the customer should prefer one business' products and services over another. The sellers need to understand what the customers are trying to accomplish, how they are trying to accomplish it, and how the different combinations of goods and services will be of value to them. And the value to customers might not be based just on the specific goods and services and the prices they are offered at. The value might be influenced by the supplier's ability to provide other financial incentives; it might also be influenced by the supplier's credibility, reputation, and ability to deliver.

An obvious question is who will convince the customer that our entire bundle of goods, services, and reputation are worth the price we are asking.

If we have a sales force, our sales reps can make the call, develop the relationship, and provide the information needed to convince our customer. If we do not have a sales force, we might work through a distributor that has its own sales force. And, of course, we could have various combinations of the two sales forces. We can send our sales force to convince the customers that they should purchase our products for a premium price, and the distributor can send its sales force to call on the same customers and promote any of the products that the distributor carries, including our competitors.

(We should note that advertising in the consumer market plays the same role as our sales force in the business-to-business market. The advertising provides the contact between the supplier and the customers, but since the market is a mass market, individual contact is not possible.)

We have some (but not complete) confidence that our sales rep will properly represent our company as credible and demonstrate that the superior quality of our products justifies our higher prices. We can provide them with training, guidance, corrective action, and financial incentives. If all else fails, we can replace them.

When we work with distributors, we will have a complex relationship with them. They are a part of our sales force and supply chain – we rely on them to promote our products and deliver them to our customers. However, they can also be our competitors, promoting a different bundle of goods and services than ours. In fact, they might even be promoting their own goods and services in competition with ours.

As a result, we cannot be as confident that our distributor's sales force will be aligned with our interests. We do not necessarily have the same goals in selling our products or the same incentives to sell them, and we are faced with fundamental questions about our relationship:

- Will our distributors make an effort to find new customers for our products and train their sales reps to promote the benefits of our products? Or will they simply look for customers who are already buying our products from other distributors? Or will they try to persuade our customers to use a lower-priced competitive product that generates higher margins for the distributor?
- How do our distributors intend to position our products among their product mix? Will they see the same value in our products that we see? It is, of course,

easier for a distributor to sell a product based on price than performance. So will they make an effort to sell the benefits? Or will they use our products as loss-leaders? Or will they use our popular brands to draw in customers, and then persuade the customers to purchase a competitive product.

A large distributor can take advantage of its strong position and demand large discounts from its suppliers on large orders. However, the distributor does not have to pass its discount to its customers. In fact, it does not have to sell the products to its customers. Instead, it can become an unintended wholesaler of our products to other distributors.

Similarly, a distributor can tell us that it would like a special price to participate in a bid. We would prefer to give the special pricing only to our distributors that will use the special price to bid our products. Other distributors could use the knowledge of our special price in order to submit a bid for a competitive product. Even if the distributor that bids our product wins the bid, we do not have assurance that they will only use the discounted product in sales to the customer that was asking for bids.

In business terms, how do we maintain the “loyalty” of our distributors? (For those who have studied business ethics, loyalty is the ethical imperative that no one likes to talk about, but that drives a significant amount of behavior in business relationships. It is the unacknowledged twin of “trust”.)

If we find distributors whose interests are relatively aligned with ours, how will we reward them, compared to distributors whose interests are at best neutral relative to ours? A simple example:

Distributor A has worked 12 months with a customer to demonstrate the value of using our products in its operations. The customer has agreed to write operational protocols to use our products and is now issuing a tender for our products. We need to find a mechanism to reward Distributor A for its efforts. If we do not, our distributors will not take the initiative to persuade customers to use our products. The easiest method is to give Distributor A the exclusive right to submit a bid for providing our products and to charge a price to the customer that compensates Distributor A for the services they provided. A second best method is to give a special discount to Distributor A for the bid. But, in that case, we are paying for the service provided by the distributor to the customer that we think the customer should pay for.

Once we have the interests of our distributor aligned with ours, how do we keep it aligned? In order to improve the ability of our distributors to sell our products, we might give them training in technical aspects of our products, sales techniques, sales management, organizational skills, and customer service. But what prevents the distributors from using those skills to sell products that directly compete with ours?

As we have noted, our distributors are not only an extension of our sales force, representing and promoting our products, they are also our competitors. A special case where we compete directly with our own distributors is the sale of the distributor’s “own-label” products. Let’s consider this scenario:

We have developed a strong position in a product category by sending our sales reps to manufacturing sites to demonstrate the value of our products. But our customers purchase our products (with many others) from its distributors. The

distributors establish the prices at which they sell our products. They know which of their customers purchase our products and which purchase competitive products; they know the quantities that their customers purchase, the prices they pay; and, of course, the prices that we and our competitors charge for the products. In fact, they have more information about our customers purchasing decisions than we have.

One of our distributors has begun to sell low-cost, own-brand products similar to ours. They might have one of these strategies: (1) they could direct their sales reps to promote our products and use their own-brand products for customers who are only interested in price; or (2) they could direct their sales reps to switch customers to their own-brand products, and use our products as a lead-in to the sale.

If the distributor follows the second strategy, it is in a strong position to compete against us. It can set the price of our products and its own-brand products to increase the sales of its own-brand products.

Naturally, we would like to encourage the distributor to follow the first strategy: we would like to protect our sales efforts from competition from distributors who are supposed to be representing our products, who have complete information about customer purchases of our products, and who set the prices of our products to the customer.

We can quickly identify a number of contractual tools to help align the interests of our distributors with our own. They are very familiar to the antitrust community: resale price maintenance and vertical restraints.

However, we would use a different analysis to justify the use of the restraints. We would presume that the supplier has a legitimate interest in restricting the activities of its channel partners in order to align their interests. Unlike the Chicago School, we would not have to imagine that a distributor is providing actual “services” that need protection from free-riders.

For example, if we look from the perspective of alignment, we would probably resolve the Dentsply case in favor of Dentsply.<sup>3</sup> Traditional antitrust analysis looked at the ability of Dentsply to “exclude” its competitors from the strongest dental supplies distributors, and this appears “unfair”. From the perspective of alignment, however, we can see what Dentsply was trying to achieve. It was “unfair” for its distributors to use the substantial income they made selling Dentsply products to support the sales of Dentsply’s competitors. Dentsply simply gave the distributors a choice: you can be loyal to Dentsply or to the competitors, but not both, so make a choice. While most Dentsply distributors chose Dentsply, it was because they did not want to give up the income generated by Dentsply products.

The Dentsply example leads to a separate discussion regarding the protection of competitors. It is possible that small, single-product competitors of a large diversified company have difficulty entering the channels, even though they are more efficient (in some sense) and more innovative (in some sense) than the large firm. However, we should not presume that the only way for the economy to enjoy the benefits of the efficiency and

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3 *U.S. v. Dentsply Int'l, Inc.*, 399 F.3d 181 (3d Cir. 2005).

innovation are through the small, single-product firm. It is possible that customers in the industry more highly value the ability to purchase a broad range of products from a single source of supply. The solution, then, is not to restrict the larger firm from requiring loyalty from its distributors – the solution is to encourage the smaller partner to find larger partners through which it can compete as part of a broad bundle, either through an alliance or merger.

## Conclusion

We began our discussion with the idea that antitrust is a set of equitable principles. The equitable principles have been based on populist ideals supporting small firms against big firms or the economic approach that is based on “consumer welfare”.

We have looked at the standard economic models used to analyze economic activity and questioned their relevance to the market they are supposed to describe. We have also suggested that a model based on “bounded rationality” among all parties would give us greater insight into the reasons for certain organizational structures and behaviors.

I believe that such a model would support a new set of “self-evident” principles:

- Firms compete, not products.
- Firms use all of their resources to get the business of their customers.
- The potential for profits drives innovation and efficiency, not competition.
- Social welfare improves over time due to the “surplus” value created by producers and channel partners. Consumers do not “create” value; they consume it.
- The economic agents (suppliers, channel partners, customers, consumers) struggle in the economy to allocate the surplus. There is no reason to measure social welfare based only on the portion of that surplus that goes to any one of those groups (or their subgroups), for example, consumers.
- Consumers play an active role in determining how suppliers and channel partners are organized as well as what goods and services are offered.
- Consumer preferences should be respected. Market share based on consumer preference (for example, brand loyalty or network effects) should not be the basis for antitrust action.
- Aligning the interests of suppliers, channel partners and customers is essential for a well-functioning economy. Efficient mechanisms for creating alignment (loyalty rebates, exclusive territories, marketing restrictions, maximum prices, etc) should be presumed to be procompetitive.

The antitrust conclusions that we would reach from these “self-evident” principles would be the same as those reached by the Chicago School, but with a different rationale. In particular, vertical restrictions and resale price maintenance would be presumed to be “fair”, that is “procompetitive”, regardless of the size of the supplier, channel partner, or customer, since they are needed to bring alignment among parties that are involved in the economic activity.

I believe these principles add an interesting light to the debate among schools of antitrust. But my own rationality is bounded.