"Summary of article by Robert H. Frank: The Demand for Unobservable and Other Nonpositional Goods"

The demonstration effect applies more forcefully to some goods than others. We know what kind of cars our acquaintances drive, but not what kind of insurance they buy. This article analyzes the demand for "positional"[1] and nonpositional goods, develops a formal model of the decision to consume such goods, and examines empirical evidence on savings behavior and on labor compensation and union contracts.

INDIVIDUAL CONSUMPTION DECISIONS

Evolutionary forces saw to it that we place great importance on seeing that our children are launched in life as successfully as possible. Parents' utility functions may be assumed to include an instruction such as: "Feel bad whenever your children are less well provided for than are the children of your peers." Because this objective is defined in relative rather than absolute terms, it motivates parents to compete with each other by working longer hours, or under more dangerous conditions, than is optimal for society as a whole.

Of course, as in any positional competition, the supply of relative standings is fixed, and everyone cannot simultaneously succeed in getting ahead. Because extra income is valued for its relative, as well as absolute, advantages, working harder and longer appears misleadingly attractive to individuals. That is, perceived individual payoffs from additional labor add up to more than the realized aggregate payoff.

SIMPLE MODEL OF THE DEMAND FOR NONPOSITIONAL GOODS

Suppose that there are only two types of goods: positional and nonpositional. Assume a population of identical individuals whose utility functions depend on the consumption of both types of goods, and on the individual's percentile ranking in the consumption of positional goods. A mathematical model based on these assumptions allows analysis of both competitive outcomes, in which individuals seek to increase their relative standing via positional consumption, and cooperative outcomes, in which individuals accept their relative standing and do not attempt to get ahead of others.

Three propositions can be easily established in such a model. First, demand will be higher for nonpositional goods and lower for positional goods in the cooperative case than in the corresponding competitive case. Second, individual's utility will be higher in the cooperative

1

scenario than in the other. Third, the share of household budgets spent on nonpositional goods will grow more rapidly as income increases in the competitive case. The third proposition results from the fact that in the competitive case, low-income households have more to gain than others do through positional consumption, and will tend to favor it over nonpositional spending. In particular, note that savings is a nonpositional "good," since others cannot observe your decisions about savings. Thus the model of competitive status-seeking behavior explains why savings are an increasing function of relative income.

CONSUMPTION AS A SIGNAL OF ABILITY

The competitive pursuit of status through positional consumption may be functional for the individual, particularly in situations of limited information. Suppose that individuals vary widely in productive ability, but employers cannot observe ability directly. If the labor market is even loosely competitive, there will be a strong correlation between ability and income. Likewise, there is a strong correlation between income and visible, positional consumption. Thus, when ability cannot be observed directly, positional consumption may constitute a signal to others about income, and hence about ability.

In a world of imperfect information, it seems likely that an employee's compensation depends not only on actual ability (or marginal product), but also on the employer's best estimate of the employee's ability at the time of hiring. Under these conditions, increased positional consumption may be rational for the individual, since it may be interpreted as a sign of ability, and thus lead to better job offers. This effect should be stronger in situations where information is more limited. But whatever the advantages of increased observable consumption for the individual, it is clearly suboptimal for society as a whole.

A SURVEY OF EMPIRICAL EVIDENCE

In the area of savings behavior, economists have struggled to explain why the average propensity to consume (the ratio of consumption to income) falls with income in cross-section data, but is constant over time. James Duesenberry's solution in 1949 was essentially the same as the one proposed above, namely that demonstration effects weigh more heavily on people with relatively lower incomes, causing them to consume more and save less.[2] Since this effect is based on relative position in society, it is not changed if everyone's absolute income rises over time.

The economics profession prematurely abandoned Duesenberry's hypothesis in favor of explanations offered by the permanent income hypothesis and the life cycle hypothesis. However, these theories, unlike Duesenberry's, imply that people of all income levels save the same fraction of their lifetime incomes. Several major studies of savings and income are in accordance with the findings of Duesenberry, finding a positive relationship between savings rates and lifetime income. There is little if any data supporting the alternative position that savings rates are independent of lifetime income.

Analysis of positional consumption also illuminates the role of unions in determining compensation packages. Union members have higher incomes, on average, than other workers of similar ages and backgrounds, and are therefore more likely to perceive themselves as having

2

achieved high status among their peers. Therefore we would expect union members to place a higher priority on nonpositional consumption. This expectation is fulfilled by the fact that unobservable benefits such as insurance, health care, and paid vacations form a greater fraction of total compensation for union workers than for their non-union counterparts.

If interdependent choice and positional consumption are important, then certain limitations on individual choice can improve social welfare. Social Security and other programs that force people to save, laws and regulations that limit excessive hours or unsafe conditions of work, or even a simple tax on positional consumption, all may serve to counteract the consumption externalities that arise from the competitive pursuit of status.

Notes

1. As defined by Fred Hirsch; see Hirsch summary in this chapter.
2. James Duesenberry, Income, Saving and the Theory of Consumer Behavior (Cambridge: Harvard University Press, 1949), 17-46; cited by Frank, 109.