



Economists Favour the Price System – Who Else Does?*

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I. EMPIRICAL EVIDENCE

1. Economics as the science of the price system

The defining characteristic of an economist is that he favours the use of the price system over all other decision-making mechanisms¹. The reason for this clear preference for the market over social choices by political, administrative bargaining or traditional procedures is due to its efficiency properties. In general equilibrium theory, the 'invisible hand theorem' establishes that the (ideal) price system leads to PARETO-optimality. Over the last few years it has been increasingly stressed in micro-economics that the use of prices automatically produces the required incentives so that individuals behave in a socially desirable (efficient) way.

This marked preference for the price system is reflected in the whole economics literature, and in particular in the modern textbooks. The same view has been revealed in a survey recently undertaken in the

* Written version of a lecture given on the occasion of conferring the degree of doctor honoris causa of the University of Zurich to Professor GOTTFRIED BOMBACH, April 1986. It was also presented at the Hochschule für Wirtschafts- und Sozialwissenschaften, St. Gallen, in May 1986.

** Professor at the Institute for Empirical Economic Research, University of Zurich. – For useful suggestions and criticisms I am grateful to WERNER W. POMMER-EHNE, HANNELORE WECK-HANNEMANN, BARBARA KRUG, HEINZ BUHOFER, REINER EICHENBERGER, RENÉ L. FREY, MATHILDA KAWASSIADES, BEAT GYGI, CORNELIA KLINGER, MANCUR OLSON and GIANDOMENICO MAJONE. – Financial support is gratefully acknowledged to the Fritz Thyssen Stiftung.

1. The following discussion is restricted to Western economists and conditions, but it seems that some aspects apply to other systems, also. The term 'decision-making mechanism' is used in the sense of DAHL and LINDBLOM [1953].

Table 1

Economists' support of the price system. Response to the five propositions on which economists in the US have the highest degree of consensus (percentage 'generally agree')

Propositions	Percentage who 'generally agree'	
	United States (N = 211)	United States and selected European countries (N = 936)
1. Tariffs and import quotas reduce general economic welfare	79	57
2. A ceiling on rents reduces the quantity and quality of housing available	77	56
3. A minimum wage increases unemployment among young and unskilled workers	67	41
4. Cash payments are superior to transfers-in-kind	65	48
5. Flexible exchange rates offer an effective international monetary arrangement	60	48

Sources: US results adapted from KEARL, POPE, WHITING and WIMMER [1979]. The 'selected European countries' include Austria, France, the Federal Republic of Germany and Switzerland. See POMMEREHNE, SCHNEIDER, GILBERT and FREY [1984] and FREY, POMMEREHNE, SCHNEIDER and GILBERT [1984].

United States [KEARL, POPE, WHITING AND WIMMER, 1979] of the views of professional economists. Over 200 members of the American Economic Association have been asked to respond to roughly 30 propositions on economic topics. They could indicate whether they 'generally agree', 'agree with provisions', or 'generally disagree', or they could abstain.

Table 1 reports the results for those five propositions on which American professional economists revealed the highest degree of consensus.

It may be seen that all of these propositions deal directly with the price system, either arguing for its use ('cash payments are superior to transfers-in-kind'; 'flexible exchange rates are effective') or arguing against interfering with it ('tariffs and import quotas reduce welfare');

'rent ceilings reduce housing'; 'a minimum wage increases unemployment'). The first column lists the percentage of American respondents who have indicated that they 'generally agree' with the propositions. The majority thus clearly supporting the use of the price system varies between 60% and 79%. Accordingly the rejection rates ('generally disagree', not listed) is extremely small, ranging (with one exception, the proposition on minimum wages) between 2% and 3% of the respondents.

It may be objected that this overwhelming support of the price system is a typically American feature which does not apply to Europe. In order to test this conjecture, a series of surveys was undertaken for the selected European countries Austria, France, the Federal Republic of Germany and Switzerland². The responses relating to the whole sample including American and European economists (N = 936) are listed in the second column of *Table 1*. These results indicate that the overall level of support of the price system is somewhat lower. Nevertheless, between 41% and 57% of professional Western economists 'generally agree' that the price system is a more desirable decision-making mechanism than its alternatives, and that it is in particular superior to regulatory interferences in the economy. If the respondents 'agreeing with provision' are included, the majority in support of the use of prices is above 83% (the exception being the proposition on minimum wages with 67% support). As may be seen by a comparison of the two response columns, the relative levels of support among the propositions are quite similar. It may thus be concluded that professional economists do indeed favour the price system.

2. Non-economists feel differently

To say the least, non-economists are less convinced of the superiority of the price system than professional economists are. Indeed, they often show an open animosity to the use of prices.

This attitude is even visible among trained economists. As soon as they have left academia and are confronted with 'real life' issues they become less enthusiastic about the price system. *Table 2* lists those economists affirmatively responding to the same propositions as above, dividing the (overall) sample between full professors of economics

2. An extensive discussion of the overall results has been provided in FREY, POMMEREHNE, SCHNEIDER and GILBERT [1984].

Table 2

Differences in views about the price system between full professors of economics and economists employed in government. (Same five propositions as in Table 1.)

Propositions (abbreviated)	Percentage who 'generally agree'	
	full professors	economists employed in government
	(N = 219)	(N = 239)
- Tariffs reduce economic welfare	53	55
- Rent ceiling hurts housing	58	45
- Minimum wage increases unemployment	45	33
- Cash better than in-kind-transfers	49	49
- Flexible exchange rates are effective	50	44

Source: See Table 1.

staying in academia and economists employed in government confronted with practical life issues³. In three of the five propositions the economists working in 'practical life' are clearly less enthusiastic about the price system than the academics of highest rank are. (In the other two propositions, the level of support is similar.)

3. Procedure

The reasons why non-economists (and economists engaged in 'practical life') are sceptical about the price system or even reject it will be discussed under four headings. The first set of reasons relates to lack of information (section II). The use of prices is often blocked by interest groups who otherwise expect to lose in the distributional struggle. This set of reasons refers to political economy (section III). The price system is considered to be 'unfair' under identifiable conditions, and individ-

3. An analysis of these survey results has also been undertaken using probit estimates, keeping other influences constant. (See the references in the preceding foot-note.) Statistically significant differences in views between academics and practitioners also emerge there.

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uals have a reluctance to engage in trade. This set of reasons is based on results of modern experimental psychology (section IV). Finally, individuals may fear that the price system leads to a destruction of morals and is therefore ethically unacceptable (section V). Concluding remarks are offered in section VI.

II. INFORMATION

A straightforward and often used explanation why the price system is not used is that the non-economists are not aware of its excellent properties for resource allocation. Two reasons for this lack of knowledge must be distinguished, because they have quite different consequences for the economist as policy adviser.

1. Inadequate training in economics

Everyday experience shows that economic knowledge is not particularly widespread – at least in the professional economists' sense. Above all, the basic mechanism of the 'invisible hand' is not widely understood.

This lack of economic knowledge can be overcome by increasing the quantity and improving the quality of economics teaching. This is the economist's task at various levels of education, including the general public. An important role is played in this respect also by economic journalism. At present, and particularly on the European Continent, the transfer of modern economic knowledge to the general readers is not undertaken very successfully.

2. Unwillingness to adopt the economic point of view

This second reason for the insufficient knowledge about the properties of the price system is both more important and more interesting. It assumes that the lack of knowledge about economics is willingly and rationally chosen by the individuals concerned.

For many non-economists an adoption of economic theory would result in a sizeable loss of educational capital already acquired in other fields of knowledge. A lawyer, for instance, who has been trained that the essence of policy consists in detailed regulations of an area, would have to acquire a completely different stance if he exposed himself to the view of economists that the price system is in most cases better able to

achieve a given goal. As an individual concerned with his own utility, to throw away the acquired educational capital presents a loss. He does better to pursue his relative advantage, namely to regulate and to interpret regulations.

In so far as the lack of information about economics is the result of utility maximizing behaviour, economists as policy advisers have a difficult task. Merely providing information of how efficient the price system is compared to its alternatives in particular situations, may usually do little to affect the net benefit calculus of the non-economists tied to a different paradigm. A more effective approach is to influence the educational system at its roots, but this attempt is, of course, resisted by the adherents of other paradigms. The only way out seems to be to demonstrate to those benefitting from an efficient allocation of resources via the price system that economic knowledge is profitable, and that it is therefore worthwhile to acquire and to introduce into the educational system.

III. INCOME DISTRIBUTION

The second set of reasons why the price system is often not welcomed or directly opposed is due to its distributional consequences.

1. Distribution matters

The price system is *known* to work efficiently but is nevertheless rejected. Often, it is dismissed exactly *because* it works so well.

Some economists educated in the tradition of welfare theory find this argument difficult to swallow because they assume that costless compensation is possible. If this were really the case, distributional considerations would indeed be no argument against the use of prices for resource allocation. Distribution would be settled by appropriately assigning the initial bundle of resources, or by redistributing the market outcome.

In reality, costless redistribution or compensation is *not* usually possible, and therewith political aspects and government intervention enter the scene. In modern political economy it has been convincingly

shown⁴ that the reason for government interventions is not 'market failure' (in the classical sense of BATOR [1958]) but the struggle about income distribution. Groups threatened by the price system actively transform considerations of efficiency into those of distribution. This is well visible, for instance, when changes in public prices in transport or communication are discussed. Invariably, the subject is publicly discussed in terms of distribution, and often in terms of the prospective losses which affect a very small section of the population.

The neglect of efficiency and the stress on distribution in economic policy discussions should not come as a surprise to economists: Efficiency, and therewith the use of the price system, is a public good for whose supply there is little incentive. The shares in the product appropriated by a pressure group are on the other hand a private good where interests are clearly defined and well visible.

2. Consequences for economic policy

In the *current politico-economic process*, the economist as a policy adviser cannot hope to influence much the prevalent attitude of neglecting efficiency (and the price system) in favour of income distribution (and direct government intervention and regulation). The politico-economic equilibrium observable in reality is based on rational decisions of actors knowing their interests. They are unlikely to be impressed by economists pointing out the potential utility gains of using the price system because of its public good nature; they are concerned with the distributional issues. In such a setting, information on the consequences of using prices for allocation *may* make it clear to certain groups in the population that they will be prospective losers, inducing them to oppose the price system. 'Objective' economic advice, in that particular case, has counter-productive effects (from the point of view of orthodox welfare theory).

The situation is quite different when economic advice is proffered at the *constitutional level* [BUCHANAN, 1977, BUCHANAN and TULLOCK, 1962] or, as the author prefers to say, at the *level of the social consensus* [FREY, 1983]. For income distribution, the essential difference to the current politico-economic level is that the actors find themselves in a state of

4. In particular in the context of revenue and rent seeking, see BUCHANAN, TOLLISON and TULLOCK [1980], TOLLISON [1982].

uncertainty about their (future) position in the politico-economic process. Or, as RAWLS [1971] would say, they have to take their decisions behind the 'veil of ignorance'⁵. An individual cannot form (well founded) ideas as to which economic sector, profession, and income class he or she will belong to, and therefore what his distribution interests are going to be in the long run. Accordingly, an individual does not know whether the use of the price system furthers or hampers his position in the income distribution. He looks at the properties of the price system in a detached, quasi-objective way. Obviously, the efficiency characteristics of the price system will be considered with great interest by the individuals on *this* level: potentially PARETO-efficient arrangements using the price system have a chance of being adopted by unanimous consent.

A comparison of a system based on the price system (such as the Federal Republic of Germany) to a system based on administrative planning and control (such as the German Democratic Republic) shows that such fundamental decisions are *decisive* for the whole day-to-day politico-economic process, and that the economic and social well-being is much affected by how the constitutional choices with respect to decision-making are taken.

IV. UNFAIRNESS AND RELUCTANCE TO TRADE

So far, the resistance to the price system due to undesirable *outcomes* has been discussed. The emphasis now shifts to the properties of the *process* of pricing. Economic theory largely disregards these 'non-consequentialist' [SEN, 1982] aspects. They have little or nothing to do with orthodox 'market failures' (à la BATOR, 1958, and others).

Modern psychology of the behavioural and experimental type⁶ has produced disturbing results for micro-economic theory. They are likely to have a major effect on future economic theory (provided it wants to remain an empirical science) though up to now they seem to be known to

5. No discussion of the concept of uncertainty at the level of the social consensus is intended here; the interested reader is referred to the literature.

6. Pathbreaking contributions have been made in particular by KAHNEMAN and TVERSKY [e.g. 1979, 1984]. See also the collection of papers in KAHNEMAN, SLOVIC and TVERSKY [1982].

a relatively small group of scholars only. One such experimental result – for others see in particular THALER [1980, 1985], THALER and SHEFRIN [1981], RUSSELL and THALER [1985] and KUNREUTHER et al. [1978] – is that subjective expected utility maximization – which is often identified with ‘rational behaviour’ following the axiomatic foundation by VON NEUMANN and MORGENTHAU [see e.g. VICKREY, 1977] – is *not* well suited as an *explanatory* theory of individual behaviour. (For a comprehensive survey see SCHOEMAKER [1980, 1982].) Similarly, the preference reversal phenomenon is inconsistent with orthodox economic preference theory [GREYER and PLOTT, 1979]. Such experiments may also help to explain why the use of prices finds so much opposition outside economics as will now be demonstrated for two concrete issue areas.

1. Price rationing is considered ‘unfair’

Consider the following situation:

‘A hardware store has been selling snow shovels for \$15. The morning after a heavy snowstorm, the store raises the price to \$20.’

In a telephone survey of 107 randomly selected residents of Toronto and Vancouver metropolitan areas [KAHNEMAN, KNETSCH and THALER, 1986] 82% of the respondents found this behaviour to be ‘unfair’, while only 18% found it to be acceptable. The study reveals that a price increase is considered acceptable if it reflects a real cost increase, and not acceptable if it is based on a scarcity increase⁷. While *opportunity cost* is a fundamental and useful concept in normative economic theory, it plays a drastically different role in a *positive* analysis of individual behaviour⁸.

7. This evaluation seems to be extremely widespread and has been understood by suppliers: In the case of a large share of goods, price increases are invariably justified by real cost increases. Consider e.g. price rises in rents for flats which suppliers ‘are forced’ to make because the rate of interest or costs of maintenance are said to have gone up.

8. It is not argued here that the disregard of opportunity cost is only due to psychological effects. Thus government and public bureaucracy systematically tend to neglect the opportunity cost imposed on the public due to the fact that such cost are difficult to grasp, and in particular are not reflected in the budget and can therefore be burdened on the citizens quite easily. An example is the large time cost imposed on car drivers because a lane of a motorway or a whole street is closed to all traffic while some minor repair work is undertaken during a few hours of the day.

The difference between the (normative) concept of opportunity cost used in economic theory and its evaluation by acting individuals is highlighted by the question posed in the same survey:

'A restaurant has become very popular and reservations for dinner on Saturday night have to be made well in advance... The restaurant owner informs all customers requesting reservations for Saturday night that from now on there will be a seating charge of \$5 per person for all Saturday night reservations.'

70% of the respondents considered this behaviour unfair, and only 30% found it acceptable. However, if on Saturday night an orchestra or pianist performs, this is taken to represent an increase in real cost to the owner and consequently individuals find a seating charge of \$5 acceptable.

The same negative attitude to suppliers taking 'advantage' of scarcity rents applies to the labour market. The individuals surveyed considered it unfair to cut wages when there is excess supply of labour, but it is felt to be acceptable that wages are reduced when the employer loses money.

All these effects could, in principle, be attributed to the fact that the resulting distributional effects are resented. The careful analysis by KAHNEMAN, KNETSCH and THALER convincingly shows that this is not an appropriate explanation. If the proceeds from scarcity rents are given away (e.g. donated to UNICEF) the general results do not change: 'the opposition to price increases as an instrument of *rationing* is perhaps the most robust finding of our survey' [p. 3].

Among the mechanisms based on prices, auctions are considered by the participants in the survey to be a particularly unfair method for allocating consumer goods that have become scarce. We thus reach the following result with respect to economists' and noneconomists' preferences for decision-making mechanisms when scarcity exists:

evaluation	economists ('efficiency')	non-economists (survey by KAHNEMAN et al.)
first preference	auctions	direct allocation by suppliers
second preference	prices set by suppliers	prices set by suppliers
third preference	direct allocation by suppliers	auctions

The result of the study on 'fairness' thus reveals the exactly reverse order of preference compared to the one by (academic) economists.

That the use of the price system for allocation is considered unfair under identifiable conditions has been understood by many suppliers of the respective goods. They fear losing good-will and demand in off-peak periods and in the future when they employ 'unfair' pricing practices. Many examples may be found in the area of sports and culture. Ski resorts rarely ration demand by openly and visibly charging higher prices in peak periods when demand exceeds the capacity of ski lifts. They fear to lose customers in the medium and long run and therefore prefer to ration by the waiting time and by direct allocation (e.g. participants in ski schools need not queue up). Similarly, theatres, operas and festivals are most reluctant to ration by price; it may generally be observed that at the given prices, demand strongly exceeds capacity for first nights⁹. An additional important institutional (and not psychological) reason for this behaviour needs to be mentioned here: the managers of such organizations (who, not being the owners, can at best appropriate only a small part of the profit) derive utility by being able to determine who is allowed to attend, giving them power and prestige.

People are under many circumstances averse to the use of prices for allocation. In this sense, there is 'market failure'. It would, however, be wrong for economists to conclude that the price system should not be used in these areas. This would correspond to the mistaken idealist 'Nirvana' approach [DEMSETZ, 1964, ALCHIAN, 1977]. Rather, a comparative institutional analysis [BRUNNER, 1982] has to be undertaken: the 'fairness' of the price system (as conceived by its users) must be confronted with the 'fairness' of alternative decision-making mechanisms. Allocation by a bureaucratic organization often constitutes the alternative to the price system chosen (and, it must be said, suggested by many of those economists dealing with 'market failure'). Considering the incentive structure of bureaucrats – who are little interested in the personal welfare of the consumers of the goods and services they decide

9. There are certainly counterexamples where prices are differentiated to ration demand: Hotels, airlines and railway companies sometimes differentiate between peak and off-peak prices, but it is worth noting that this is usually done by granting rebates for off-peak periods. The conditions under which price rationing is considered unfair or acceptable are not yet well known.

upon – the theoretical hypothesis may be advanced that under many circumstances people consider an administrative allocation of goods and services also to be ‘unfair’, and often ‘more unfair’ than an allocation by prices. The many complaints heard about the way public housing is distributed to those deemed ‘worthy’ is an indication in this direction. The role of the price system as a decision-making mechanism when there are scarcity rents can only be evaluated if more is known about the *relative* unfairness of the various allocation systems.

2. Incompatibility between buying and selling prices and the reluctance to trade

‘Mr. X bought a bottle of good red Burgundy for Fr. 20.– in 1975. Recently his wine merchant offered him to buy the bottle back for Fr. 80.–. The man refuses although he has never paid, and would never pay, more than Fr. 35.– for a bottle of wine.’

This example illustrates the *endowment effect* for which empirical evidence has been found in various circumstances [see THALER 1980, KAHNEMAN, KNETSCH and THALER, 1986]. This effect states that people are reluctant to sell an asset which belongs to their endowment. It thus seems to be more painful to part from an asset than it gives pleasure to obtain it. The *buying* price is lower than the *selling* price, or the willingness to pay for an asset is smaller than the minimal compensation that would induce an individual to give up an asset, once acquired.

The endowment effect violates a basic assumption of standard economic theory stating that buying and selling prices must coincide. The owner of the wine bottle in our example, so it is argued in traditional economics, in fact ‘buys’ the bottle from himself, if he keeps it when he has the opportunity to sell it. It is, of course, again an instance of opportunity cost.

The difference between buying and selling price *can* be explained in the orthodox way by introducing income effects and/or transaction costs (but both are obviously not convincing in the case of the wine example) or by assuming that the owners of the assets speculate on even higher future prices (which is an *ad hoc* explanation). THALER [1980] offers a different hypothesis. He argues that individuals make a clear distinction between opportunity costs (which are counted less heavily) and ‘out of pocket costs’ (which are taken to be more burdensome). In present economics, this distinction is not made, but all costs are looked at

in terms of opportunity cost [BUCHANAN, 1969]. Empirical research in the form of careful surveys, experiments and real life observations [see e.g. HAMMACK and BROWN, 1974, KAHNEMAN and TVERSKY, 1979, KNETSCH and SINDEN, 1984] suggest that this equality does not hold (in a *positive* sense) but that opportunity cost are systematically undervalued. A real life case is, for example, that changes in out of pocket cost of education have a much stronger effect than an equivalent controlled change in opportunity cost. (This has been found in the Seattle – Denver Income Maintenance Experiment [THALER 1980].)

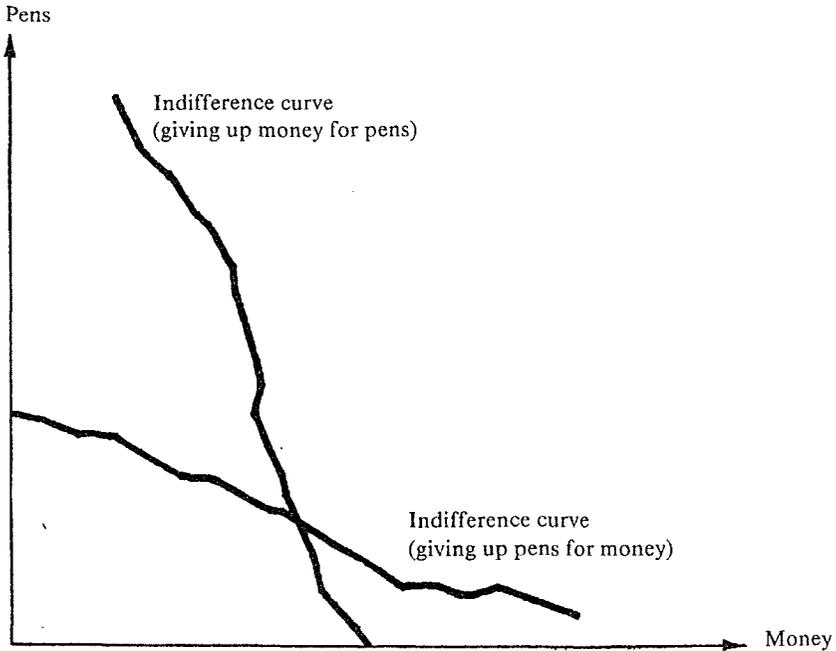
A basic proposition in (axiomatic) economic theory states that *indifference curves* are reversible and therefore do not intersect: ‘the rate of commodity substitution at a point on an indifference curve is the same for movements in either direction’ [HENDERSON and QUANDT, 1971, p. 12]. It thus does not matter whether good A is exchanged for good B, or good B for good A. Indifference curves have also been established by experimental evidence [MACCRIMMON and TODA, 1969], which are quoted in leading textbooks [e.g. MANSFIELD, 1982, p. 65, HIRSHLEIFER, 1984, p. 74] to illustrate the commonly accepted properties of indifference curves. The endowment effect – a particular instance of a more general *reluctance to trade* – puts the basic assumption of nonintersecting indifference curves empirically into doubt: It matters whether an individual starts from an endowment of good A and trades it against good B, or whether he starts with good B in the endowment and exchanges part of it against A. Small scale experiments by KNETSCH [1985] based on the endowment effect did indeed produce intersecting indifference curves. As is shown in *Figure 1*, when good A (pens) were traded for good B (money) – the case MACCRIMMON and TODA analyzed – the indifference curve looked dramatically different than when good B (money) was exchanged for good A (pens)¹⁰.

The intersection of indifference curves need not be explained by ‘irrationality’ of the individuals involved but can be attributed to new aspects of rational choice so far disregarded by economists. The reluctance to trade may be due to the fact that the consumers are uncertain

10. This experimental result should not so much be considered hard evidence but rather as suggestive. The experiments involved 20 test persons only and the fact that ‘good’ B was money, and not a real commodity is not well in line with the notions underlying the endowment effect.

Figure 1

Intersecting indifference curves due to the endowment effect and the reluctance to trade



about their preferences for the good(s) not yet in their endowment, as well as an uneasiness to subject goods to a direct valuation in monetary terms. It may also be looked at as an instance of people valuing losses in many circumstances more highly than commensurate gains [KAHNEMAN and TVERSKY, 1979, p. 279].

The reluctance to trade due to the endowment effect is *not* a general phenomenon; it should not be expected to exist in markets where both sides are professional dealers¹¹. The endowment effect need not only be

11. Nevertheless, even corporations may be subject to a kind of endowment effect. It may be observed in economic history that firms which have been traditionally engaged in a particular field have been unwilling to switch to another activity if the

relevant at the individual level of behaviour but may be visible also at the aggregate level. A case in point is the international trade in art treasures: There is a reluctance in all countries to sell art to foreign lands, in particular when it is considered to be part of the 'patrimoine national'. There is an unwillingness to sell paintings abroad for a price which one would never have been prepared to pay for the painting if it had not belonged to one's endowment in the first place. Consequently, the export of art is severely restricted in almost all countries of the world, i.e. an effort is made to restrict the functioning of the price system in this particular area. On the other hand, exchanges of art treasures between countries evading the price system by using the form of temporary or permanent loans seems to be acceptable and is widely practiced¹².

3. Evaluation

In the two preceding sub-sections psychological evidence has been discussed suggesting that (i) the price system is (under specific circumstances) rejected as a rationing device, and that (ii) there is a reluctance to engage in exchange and using thereby the price system, due to the endowment effect. In so far as these findings are applied to economics, three questions arise:

(i) Are the experiments sound or are they 'artificially' produced? This first question has to do with the quality of the research procedure, an issue which will not be further pursued here [see, e.g. GREYER and PLOTT, 1979].

(ii) To what areas of economics are the experimental findings relevant? It has already been pointed out that some of the effects are not general and do *not* apply under certain identifiable conditions and for identifiable actors (e.g. in the case of professional traders on both sides of the market it would not be expected that indifference curves intersect).

traditional one has become unprofitable. Rather than parting from this 'endowment' in terms of historical experience, they were prepared to suffer considerable losses over extended periods. (I am grateful for this observation to HANSJÖRG SIEGENTHALER.)

12. As has been stressed above, *institutional* influences must also be considered. An attempt to analyze psychological effects in an explicit institutional setting is made by FREY and POMMERHNE [1986].

(iii) Do the experimental effects also appear at an aggregate level or are they 'washed out' when various individuals interact with each other? In psychological economics there is a certain tendency to directly transfer psychological effects found at the individual level to the aggregate. Even such excellent contributions as by SCITOVSKY [1981] on the 'desire for excitement' and AKERLOF and DICKENS [1982] on 'cognitive dissonance' have not satisfactorily dealt with this issue. It should be taken into account that there may be institutions – and that institutions may be prompted to emerge – which create the incentives necessary to mitigate, block, or even reverse the effects at the aggregate level.

V. ADVERSE EFFECTS ON PREFERENCES

The set of reasons for opposing the use of the price system discussed in this section are located at a more general (and possibly more basic) level than the psychological effects just dealt with. Two aspects which have been discussed in the economics literature will not be expanded upon here:

(i) There are things that cannot be bought by definition. Subjecting them to pricing would destroy their value and existence. 'Trust cannot be bought nor sold in markets' [ARROW, 1974, p. 23], and the same applies to affection and love [BOULDING, 1968], to honour, respect and dignity [KINDLEBERGER, 1986]. Even time cannot simply be exchanged for money [WEIZSÄCKER, 1985].

(ii) Individuals do not only evaluate outcomes, but processes and motives also matter. Orthodox economics with its utilitarian foundation is purely consequentialist, but that has been found to be too narrow from the point of view of moral science (in particular SEN [1977, 1982], SEN and WILLIAMS [1982] and KELMAN [1981] for the case of environmental policy).

This section considers the destructive effects the price system may have on other decision-making mechanisms (subsection 1), as well as on morals (subsection 2).

1. Damaging spillovers on other decision-making systems

The negative spillovers here considered do not affect outcomes as normally dealt with in the theory of externalities, but rather have an impact on *processes* or decision-making mechanisms. Two aspects may be distinguished:

(a) The use of the price system may reduce the efficiency or even undermine the functioning of political, legal and administrative systems. Obvious examples are the corruption of politicians or judges. For the economist, this does not necessarily mean that he should advise against using the price system because such other systems possibly reduce welfare. An allocation of import licences according to administrative criteria may, for example, be worse than one which effectively uses the price system via the corruption of the public officials administering the licences. In today's society with ever increasing government regulations, this situation may obtain quite often (as a consequence the shadow economy sometimes has a healthy effect).

(b) The use of the price system may destroy the *intrinsic motivation* of individuals. An individual who is offered money (i.e. an external reward) for an activity he would do anyway as it suits his preferences tends to lose his intrinsic motivation because it is no longer needed. By adjusting downwards his motivations he reduces his overjustification. When the external reward is discontinued he no longer undertakes the activity¹³. This behaviour accords well with every day experience as those parents know who started to give their children small sums for rendering a service, and then had to experience that the children were no longer prepared to do these tasks for free¹⁴.

The behaviour mentioned *may* be attributed to the fact that the price system introduces incentives for strategic action. Experimental psychologists, however, assume that extrinsic incentives affect prefer-

13. A Jew was abused by evil youths whenever he stepped out of his door. Being wise, he did not say anything when he was given dirty names but rather gave each one of them 50 cents. They abused him again the next day, and he gave them again the same amount. This went on for several days. One day the Jew suddenly stopped giving money to the youths, whereupon they stopped abusing him, angrily complaining: 'Do you think we call you dirty names for free?' (I owe this instructive example to KURT STAFF.)

14. In many circumstances, however, token economics (an expression coined by psychologists and psychiatrists to designate the application of monetary incentives on medical and psychiatric patients, delinquents, mentally retarded, and children in classroom) has been quite successful. For a summary of the experiences see KAZDIN [1982], and for an analysis WINKLER [1980]. Many applicants of token economics expect that *after* discontinuing the monetary rewards the desired behaviour would persist (e.g. MASTERSON and VAUX [1982] for tokens in housework) – something an economist sees no reason to assume.

ences; they speak of the 'hidden cost of rewards'. (See DECI [1971], LEPPER and GREENE [1978], in particular MCGRAW [1978, pp. 33–60]. The concept of 'overjustification' has recently been used by HIRSHLEIFER [1985].)

The 'hidden cost of rewards' on motivation refers to the effect occurring when the monetary incentive is discontinued. It may, of course, be asked why this should happen because all is well as long as the extrinsic reward is maintained. For economics, the destructive effect on preferences of using the price system may be more important when the effect extends to *other* areas, leading to a '*motivation transfer effect*'. This effect may be illustrated well with the case of environment. The least cost method for achieving a given quality of air or water is by setting appropriate environmental charges. In that case *no* environmental ethic is required: 'If the charge were to be paid, few economists would express any criticism of a person undertaking the behavior' [KELMAN, 1983, p. 313]. A problem only arises when the price system in the form of charges is not applicable everywhere. Indeed, its use would cause extremely high transaction costs, or would be impossible in some areas of the environment (examples are provided in BAUMOL and OATES [1979]). In such areas it is much more sensible (efficient) to rely on an environmental ethic. If the use of the price system in the other areas destroys intrinsic motivation to behave in a responsible way in *all* areas of the environment, including those in which the price system is not applicable (motivation transfer effect), the total outcome for environmental management may be negative. It cannot in this case be excluded that not using the price system – and thus *not* destroying the environmental ethic – may be a preferable policy.

In order to get a balanced view, a comparative analysis of various decision-making systems is required. Other decision-making systems may also have undesirable effects on motivations. It is easy to think of such cases. Detailed legal regulations may drive out intrinsic motivation because of overjustification. If a marriage contract would specify exactly what each partner has to do in each circumstance, mutual love and trust, often considered the essence of this partnership, would become unnecessary and would be disposed of. There are thus not only high transaction costs (as POLLAK [1985] argues) that speak against such detailed regulations. The same principle applies on the labour market:

'Efforts to divide the employment relation into parts and to assess each separately in strictly... instrumental terms can have... counterproductive consequences' [WILLIAMSON, 1975, p. 257].

If, for instance, professors are monitored and controlled very tightly by public administrators they tend to lose their intrinsic motivation in teaching. Those teaching more than strictly required by law would reduce their input to the minimum so that the overall effect of the tightening of regulations might well turn out to be negative¹⁵.

2. *The price system destroys morals*

In his book *The Social Limits to Growth* which had a great influence in the social sciences (outside economics), HIRSCH [1976] argues that the price system *as a whole* debases moral values such as 'truth, trust, acceptance, restraint, obligation' [p. 143]. The market destroys through its 'commercialization effect' its own essential basis¹⁶. Similar views have been put forward by MAX WEBER [1920-1921], SCHUMPETER [1942], and the (then) New Left, for instance by HORKHEIMER [1952] and MARCUSE [1965], but also by economists such as ARROW [1970, 1974]. These are but the latest representatives of a sentiment held by both progressives such as MARX and ENGELS (for whom it was a cornerstone of their critique against capitalism) in the 19th century, and conservatives in the 18th century (who found the moral effect of the market to be particularly disgusting). Following this strain of thought the price system has a bad effect on morality quite independent of its particular uses. Accordingly, it should be restricted.

The crucial question is whether the price system is *more* or perhaps *less* destructive of morals than alternative decision-making systems.

15. This effect also speaks against BRENNAN and BUCHANAN's [1983, 1985] view that for constitutional choice, rules should be devised such that the *worst possible* consequences of individual behaviour for society are prevented. If such rules are instituted, the constitution would be based on a general mistrust among the individuals in society and might therewith destroy the trust without which an economy and society cannot function.

16. The necessity of trust for the price system has been stressed by ARROW [1970, 1975]. The circumstances and causes for the emergence of morals in the form of social norms has been discussed by ULLMAN-MARGALIT [1978] and OPP [1979], and in the context of institutions by SCHOTTER [1981].

Consider a planned economy. It has been often argued that it massively worsens ethical norms. Individuals are observed to become completely cynical, maintaining a strict distinction between their personal beliefs, and what is proclaimed outside. Similarly, an economy based on bargaining may lead individuals to use strategic behaviour where it is inappropriate, e.g. in much of personal life. It is not difficult to think of further cases where non-price decision-making systems destroy morals.

The price system as the villain debasing cherished values is an idea which was held in only some phases of intellectual history. As shown by HIRSCHMAN [1977, 1982] in two fascinating contributions, the exactly opposite view was intensively brought forward from the 16th to the 19th century¹⁷. According to the 'doux commerce' thesis, the price system is not only more productive than its alternatives (the well known invisible hand idea) but also

'would generate as a by-product, or external economy, a more "polished" human type – more honest, reliable, orderly, and disciplined, as well as more friendly and helpful' [HIRSCHMAN, 1982, p. 1465].

During the 18th century it was the conventional wisdom that the price system is a civilizing agent of much power and magnitude. Leading protagonists of this view were, for instance, MONTESQUIEU in his *De l'esprit des lois* [1749], CONDORCET [1795] and KANT in his *Zum ewigen Frieden* [1795]. Surprisingly, the extreme champions of the price system of the Chicago School (FRIEDMAN, STIGLER) argue exclusively with the efficiency argument and disregard this possibility of a positive effect on morals.

VI. CONCLUDING REMARKS

This paper has presented various reasons (beyond classical market-failure) why most people except professional academic economists often resist the use of the price system, or reject it completely. In each of the four sets of reasons, lack of information, undesirable distributional consequences, unfairness and reluctance to trade, and adverse effects on

17. STIGLER [1963, p. 3] is wrong when he states: 'The intellectual has never felt kindly towards the market place: to him it has always been a place of vulgar men and of low motives'.

preferences, a different response of the economist as policy adviser is called for. The reasons adduced are only partly convincing, particularly if looked at in comparison to other decision-making systems. There is little to suggest that the use of prices should be substituted by political, administrative, bargaining or tradition based decisions.

Nevertheless, it has been shown that the use of the price system may create problems and difficulties. In general, economists when confronted with such results not in line with established teaching, tend to be extremely cautious and conservative. They are fond of applying two strategies:

- (i) The undesired results are simply disregarded¹⁸; or
- (ii) they are embraced within orthodoxy, not rarely with the consequence that what is important is silently pushed aside¹⁹.

The author prefers to look at the difficulties and paradoxes as a *challenge* to existing economic theory: to actively search for what is valuable in a new and possibly disturbing idea or result, to derive hypotheses and to fairly test them empirically. That economics thereby gets more complicated is not a valid counterargument (as SEN [1977] and HIRSCHMAN [1984] have made clear). Neither is the most important task of an (academic) economist to introduce any new idea into the accepted canon of economics.

The differences in the evaluation of the price system between (academic) economists and nearly everyone else suggest the following conclusions:

(a) It is high time for economics to go *beyond* showing the efficiency of the (ideal) price system for resource allocation. In many cases, efficiency is simply not the issue at stake.

(b) Little is gained by considering those resisting or rejecting the price system as uninformed or fools. Rather, their worries should be taken seriously because they prevent the more extensive use of prices for resource allocation.

18. An example: Preference aggregation theory has convincingly proved that an aggregation of individual preferences to a social welfare function leads to inconsistencies, especially when there are multiple dimensions and distributional issues. Despite this result, the social welfare function plays a fundamental role in the theory of optimal taxation and optimal public pricing.

19. Examples: 'Satisficing' [SIMON, 1957] or 'X-efficiency' [LEIBENSTEIN, 1976] have been 'integrated' into orthodox microeconomics in a way which does not do justice to the original ideas.

(c) The distributional consequence is only one of the reasons why the price system is often rejected by non-economists. Important other reasons have to do with perceived fairness and morals.

(d) The economic view must extend beyond an outcome orientation to include in a non-consequentialist view the valuation of processes and motives. Behavioural regularities isolated in experimental psychology are to be taken into account within economics.

(e) Psychological aspects such as the endowment effect, the hidden cost of rewards, or the motivation transfer effect, which relate to the behaviour of individuals have to be considered in the context of existing institutional (and therewith historical) conditions when drawing conclusions for the society as a whole.

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SUMMARY

Most people except professional academic economists resist or reject the use of the price system. The four main reasons are lack of information, undesirable distributional consequences, unfairness and reluctance to trade, and adverse effects on preferences. The reasons brought forward against the price system are only partly convincing, particularly in comparison to other decision-making systems. The use of the price system may create more problems than traditional neoclassical economics admits. The difficulties and paradoxes connected with the use of the price system provide a challenge to existing economic theory.

ZUSAMMENFASSUNG

Es werden mehrere Gründe (über die üblichen Argumente des Marktversagens hinausgehend) dargelegt, warum viele Leute das Preissystem ignorieren oder gar ablehnen, ausser sie seien akademisch tätige Ökonomen. Die vier wichtigsten Gründe sind fehlende Information, unerwünschte Verteilungswirkungen, fehlende Fairness und Widerwillen gegen Tausch sowie unerwünschte Auswirkungen auf die Präferenzen. Dabei sind die Argumente, die gegen das Preissystem angeführt werden, nur zum Teil überzeugend, vor allem dann, wenn dieses mit anderen Entscheidungssystemen verglichen wird. Der Gebrauch des Preissystems kann mehr Probleme aufwerfen, als es die traditionelle neoklassische Lehre wahrhaben will. Die Schwierigkeiten und Paradoxien, die die Anwendung des Preissystems mit sich bringt, stellen eine Herausforderung an die gängige ökonomische Theorie dar.

WHO FAVOURS THE PRICE SYSTEM?

RÉSUMÉ

La plupart des gens, sauf les économistes professionnels «orthodoxes», sont réticents vis-à-vis du système de prix, voire le regrettent. Quatre raisons principales sont avancées: le manque d'information, les conséquences indésirables sur la distribution, la partialité et le manque de désir à commercer, ainsi que les effets pervers sur les préférences. Ces raisons ne sont que partiellement convaincantes, surtout quand on compare le système de prix aux autres méthodes de prise de décisions. L'emploi du système de prix peut créer plus de problèmes que ne l'admet la théorie économique néo-classique traditionnelle. Les difficultés et les paradoxes liés à l'emploi de ce système constituent un défi à la théorie économique actuelle.