ECONOMICS OF PLANNING

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Gomulka on the Soft Budget Constraint: A Reply

Janos Kornai

Introduction

Gomulka's paper is stimulating, and his suggestions thought-provoking.[1] He has provided several new analytical tools which seem to be workable. These include the distinction between r-softness and m-softness; the distinction between budget softness and budget flexibility, and the treatment of the difference between budget and price flexibility as an important explanatory variable. He is absolutely right to emphasize the relationship between softness and inefficiency; that is a very important point. The soft budget constraint (SBC in this note) entails a tolerance of inefficiency. I also appreciate the constructive style of Comulka's criticism.

At the same time there is a good deal of misunderstanding. Some of my ideas are taken out of context. In some important places there is a shift of emphasis compared with the original emphasis in my book.[2] Perhaps if all these misunderstandings were removed, there would still be some disagreement between us, but it would surely be much less than appears to exist at present.

In any misunderstanding of a book or article it is always open to question who is responsible — the author or the reader. Very often both are to blame. It should also be remembered that the creation of new ideas is a trial and error process. I consider that my ideas on socialist systems are evolving over time, and I believe that I can present them in a clearer form than five years ago. Indeed, since I wrote *Economics of Shortage* (*EOS* henceforth) I have written several papers in which I have offered revised and improved formulations.[3] I am in the process of writing a paper on SBC with the explicit intention of offering a more precise formulation. Nevertheless, Dr Gomulka is fully entitled to take *EOS* as it stands and to base his critical analysis on the 1980 text.

On The Interpretation of the SBC-Syndrome

Let me start with a self-critical remark. I was certainly wrong to include in the definition of a hard budget constraint the condition that the firm is a price-taker (*EOS* p. 302). This definition would include in the SBC-syndrome all price-making oligopolists and many other cases of imperfect competition on a buyer's market. This was certainly not my intention, when creating the concept of SBC. I want to limit the case of 'softening the budget constraint' *exclusively* to situations in which a decision-making unit (a firm or another

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[1] S. Gomulka, 'Kornai's Soft Budget Constraint and the Shortage Phenomenon: A Criticism and Restatement', *Economics of Planning*, 19, no. 1 (1985), pp. 1–11.

[2] *Economics of Shortage* (Amsterdam, 1980).

[3] 'Adjustment to price and quantity signals in a socialist economy', *Économie Appliquée*, 35, no 3 (1982), pp. 503–524; 'Paternalism, buyers, and sellers' market', (with J.W. Weibull), *Mathematical Social Sciences* (1983), pp. 153–196; 'Reproduction of Shortage on the Hungarian Car Market'. (with Z. Kapitány and J. Szabó), *Soviet Studies*, 36, no 2 (April 1984), pp. 223–226; 'Softness of the budget constraint — an analysis relying on data of firms', (with A. Matits), *Acta Oeconomica*, 32 (1984), pp. 223–249.

organization) gets some *external assistance* from some large paternalistic institution. In most cases this is the State. I still do not restrict the SBC-phenomenon to socialist economies or to firms in State-ownership. Similar phenomena may appear in mixed economies, with firms in private ownership, or with public projects or public utilities, etc. But in all cases the distinguishing feature is assistance received from an institution outside the market-place with the aid of negotiations, bargaining, lobbying, political pressures, etc. That is clearly different from the situation of a firm which may exploit its position in a situation of imperfect competition: such action is nonetheless exploiting this position in the marketplace, and not in the corridors of a bureaucratic patron.

In my more recent writings, I use a formulation somewhat different from that in *EOS*. In my 1982 *Économie Appliquée* paper, for example, talking about prices, I refer exclusively to a possible softening of *administrative* prices, where the price-regulatory bureaucracy applies some 'soft' cost-plus principle. It adjusts prices almost automatically to costs, whatsoever the costs are.

Apart from this mistake, I still think that *EOS* conveyed more or less correctly the following elements of the SBC-syndrome:

— It is not a financial issue, in the narrow sense. SBC is the expression of a certain type of *behaviour*. The decision-maker has a subjective perception of the probability distribution of external assistance in the event of financial trouble. The higher the perceived subjective probability of receiving external assistance, the softer the budget constraint (BC). In other words: softness/hardness is a part of the decision-maker's *expectation*.

— The softness/hardness (the stringency) of the BC refers — to use a Marxian term — to a social relationship between the paternalistic State and the firm which is its client. This is highly visible and extreme in the relationship between the Socialist State and the State-owned firm, but it may appear — usually in a much weaker form — in other relationships as well. A very important element in the SBC syndrome is that external assistance is a matter of *bargaining* for more subsidy, tax-exemption, for permissive administrative prices etc. Everything is negotiable — not on the market, but with the paternalistic bureaucratic institutions. (See Chapter 22 of *EOS* on paternalism, and especially Section 22.4.)

My first objection to Gomulka's paper is that this behavioural and politico-sociological aspect is lost. The discussion remains in the monetary-fiscal-pricesetting sphere, and does not analyse the underlying social and political phenomena.

The Chain of Causality

Gomulka constrasts two alternative versions of the causal explanation of shortage: SBC (Kornai) versus price inflexibility (Gomulka). I think this contrast misses important elements in the chain of causality. I have in mind the chain illustrated in Fig. 1.

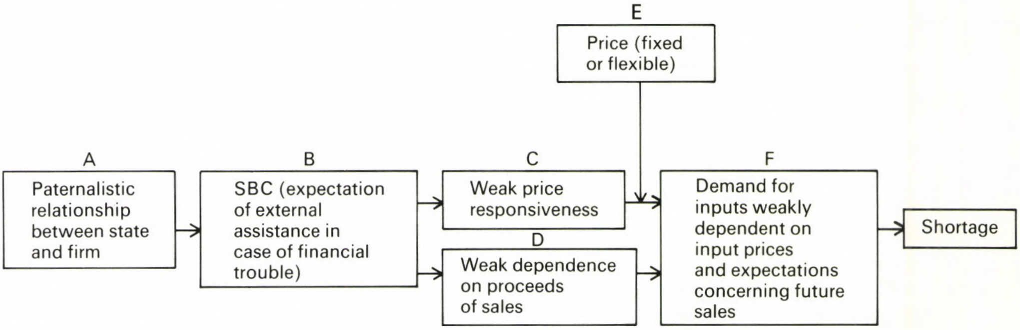

Figure 1. The causal connections between SBC and shortage

Price flexibility is of course an important issue. This is widely discussed in the literature on disequilibrium. It is true that socialist systems have a strong preference in favour of price-stability, i.e. price-inflexibility. I emphasize this point at several places in my book (a feature of *EOS* to which Gomulka does not refer).

I maintain, however, my proposition that there is an even more fundamental issue: is the decision-maker *responding* to prices? Disequilibrium theories usually take it for granted that both households and firms are highly sensitive to prices. My own proposition is this: price responsiveness is not given but is a function of the stringency of the budget constraint. If responsiveness is weak, then even very flexible prices will not induce significant response. Fig. 2 illustrates this relationship.

Here are four demand curves. The point U denotes the upper limit on the quantity demanded, which is determined by variables other than price. Focusing on socialist state-owned firms, Gomulka has in mind D 3 and I have in mind D 2. There is a 'reasonable' domain of potential price increase. I assume in drawing Fig. 2 that this domain of 'reasonable' price increase ends where the axis ends. D 2 would of course intersect the supply curve somewhere — but only at an unrealistically high price.

I accept Gomulka's contention that in presenting the causal chain illustrated in Fig. 1, I should make more explicit the underlying assumption of limits to price flexibility, with respect to the relationship between price flexibility and budget-constraint softness. That is an important lesson I draw from his comments. While accepting this point, however, I would say that we still have not answered the question of the relative importance of different causal factors explaining shortages. A mental experiment like the Leyland-economy does not clarify the issue of causality, which is ultimately an empirical one.

We must go back to Fig. 1 and start from the left side. Once the causal effect A → B is given, B → C and B → D will also be determined. And if we once have C (i.e. weak price responsiveness), then E may have some effect on the causal relationship C → F, but not a very strong effect. This view is all the more plausible when it is borne in mind that E, i.e. price flexibility, is not simply a matter of choice, as in mental experiments. The degree of price-inflexibility is again to a large extent determined by the nature of the system. In other words, it is also systemic, like the stringency of the BC.

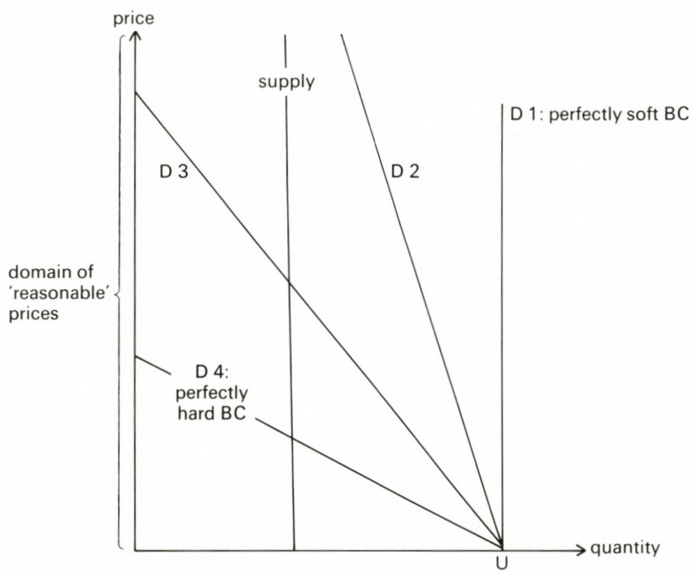

Figure 2. Budget hardness/softness and price-responsiveness of demand

To sum up this point: I feel that, in omitting the issue of *price responsiveness* from the line of argumentation, Gomulka does not accurately represent my views.

According to Gomulka, the main issue is how quick and flexible the movements are along the vertical axis of Fig. 2. I agree that this is important but consider that the slope of the demand curve is decisive. With a slope somewhere between D 2 and D 1, and prices restricted in the 'reasonable' area, demand will remain 'almost-insatiable.'

In my judgement, Gomulka's argumentation operates too much in a hypothetical-normative framework (what would happen if?..). I prefer to start from the more inductive-positive side: what is actually going on in socialist countries? The best example is investment.

Let me use Fig. 2 for the sake of illustration. On the horizontal axis we have demand for investment credit, and on the vertical axis we have the interest rate. Is there a market clearing interest rate? Is it 10 or 20 or 100 per cent? I firmly believe that this is a meaningful question if, and only if, financial discipline is enforced, and the financial failure of an investment project has harsh consequences. This, however, is never the case. The very same authorities who decide on the interest rate do not want firms to go bankrupt and do not want to reveal that something went wrong with an investment decision. The approval process is lengthy and extended, involving in the decision superior institutions on the middle level of the state and Party bureaucracy, and frequently also very important people higher up, cabinet members, Politbureau-members, etc. Nobody is interested in demonstrating deficiencies. On the contrary, everyone wants a cover-up. That is the starting point ($A \rightarrow B$ in Fig. 1). And if that is so, then a reasonable increase in the interest rate (let us say from 5 to 10%) does not lead to any significant response on the demand side. That is quite different from a system with more or less hard-budget-constrained private enterprises, where a wrong investment decision causes great harm and a rise of 1–2 percent in the interest rate will affect investment intentions. That is the reason why I would maintain the proposition: as long as investment hunger persists (due to the SBC phenomenon), vertical chronic shortage will persist (more demand for, than supply of investment quotas, project approvals, investment credits, investment subsidies, etc.). And in most partial markets also horizontal shortage of investment goods will persist.

As a normative adviser to socialist governments I would surely go along with Gomulka and suggest: harden financial discipline *and* raise the interest rate to the market-clearing level. But as a descriptive-positive analyst of the existing system I can understand the properties of the system which do not allow governments to follow this advice.

The Consumer Market

I agree with Gomulka that a more complete understanding of the consumer goods market in socialist economies requires a study of the private sector and of the second economy, grey and black markets, etc. I admitted to the reader in the introductory chapter of *EOS* that I could not expand my analysis to these sectors. This was not because I was unwilling to bring them into the analysis, but because of the need for some limitation of the scope of the study. Even without further expansion, the book is rather long.

Remaining within the limitations deliberately set by the author, let us now consider the two-sector economy: state-owned producers and households. Here I feel that in his critique Gomulka does not offer a sufficiently full representation of the ideas of *EOS*.

1. *The syphoning-off effect.* This is, I think, stronger than Gomulka assumes. There are very few groups of consumer goods for which hard-budget-constraint (HBC) households do not have to compete with SBC buyers, either directly (for the good or service itself) or indirectly, for the inputs in the last stages of production and distribution.

(a) First of all: such competition exists with respect to all tradeables. Consumer goods can be exported. If export is constrained on the buyers' side (i.e. the foreign importer has a constrained demand), exports can be promoted via subsidies, creating artificially low export prices. And there is the almost insatiable market of other socialist countries,

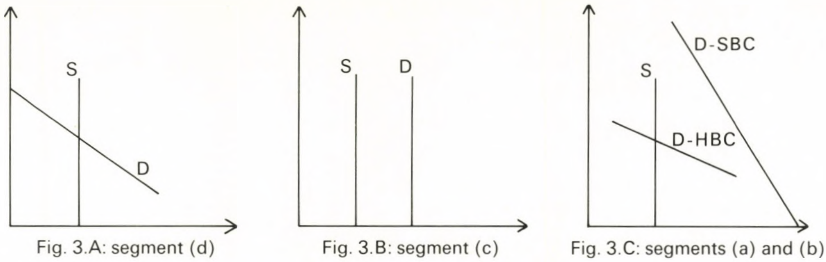

Figure 3. Consumer goods markets and the syphoning-off effect

including poor, developing socialist countries. The state-owned export organizations constitute a buyer with almost insatiable demand (and, of course, with a soft BC, so far as domestic purchasing prices are concerned, i.e. the domestic costs of exports). Even in very bad times, when food shortages at home are intense, socialist countries (e.g. Poland) export food.

(b) There is a very large set of goods and services which can be used by the household and also by enterprises engaged in production and investment: construction materials, energy, cars, food (used by restaurants and hotels), clothing (used by the uniformed services), space in residential buildings (used as office space), books (used in libraries), stationery (used by offices) and so on. Millions of examples can be given where you have side by side potential buyers from both sectors. Sometimes the demand of the SBC sector is the overwhelming part; in other cases it is the smaller part but enough to absorb the supply released by the HBC-sector after a reasonable price increase.

(c) There are of course non-tradeables used exclusively by households, but a large part of them are distributed free of charge (education, health). This attribute of the system could be changed by introducing effective prices — but this is a matter which goes beyond price 'inflexibility'.

Let me denote as segment (d) the market for these consumer goods and services which do not belong to categories (a), (b) or (c).

Let us assume for a moment that supply of consumer goods is given. We have three cases:

In Fig. 3.A we have the conventional demand curve, and here price inflexibility matters. I have never denied that (see *EOS* Sections 17.5 and 18.3). I think, however, that segment (d) is relatively small.

In Fig. 3.B we see a vertical demand curve: demand is constrained by explanatory variables other than prices.

The most interesting case in Fig. 3.C, where HBC and SBC sectors are competing. The HBC sector has a regularly-shaped demand curve. The SBC sector is much less price-responsive, with a tendency to runaway demand. Here *total* demand (SBC demand + HBC-demand) can run away — even if households are highly price-responsive.

2. *Shortage-preserving supply curve.* In Figure 3 I have assumed that supply is given. In the medium term this is not the case. It is up to the planners-policy-makers-producers how they react on the supply side to price increases. They may respond as profit-maximizers do: higher price stimulates output and leads to an increased supply. But they may respond in precisely the opposite way: a decrease in demand (i.e. indications of less intense shortage) leads to a decrease of production and/or import, or a reallocation of output from the domestic market to export. Thus we get the 'shortage-maintaining' supply-curve as in Fig. 4.

The decision-makers on the supply side maintain 'normal shortage'. Of course, the figure is grossly oversimplified, in two main ways.

First, only a dynamic interpretation is meaningful. There is a price increase this year, which eliminates or at least diminishes excess demand. But — under normal circumstances,

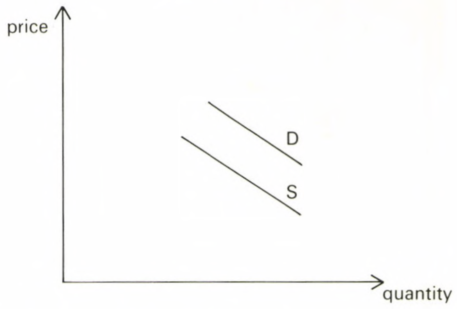

Figure 4. Consumer markets in the medium term

with normal growth and increase of real consumption — demand starts to grow again, due to income-effects. On the other hand: growth of supply does not keep pace: it stagnates or grows slower than demand, and sooner or later shortage is re-established again.

Second, the simplistic and deterministic diagram in Fig. 4 shows 'normal shortage' as a constant gap between supply and demand. In fact, we observe a 'normal interval' of shortage. For example, the normal shortages for cars in Hungary can be represented by a waiting time between half-a-year and 3 years.[4]

I do not say that the 'shortage-preserving' supply curve occurs in all socialist countries with all consumer goods all the time. But it occurs quite often in rather extended segments of the consumer market. And this principle of 'maintaining normal shortage' is widely applied at the macro-level in central planning. There is no attempt to achieve the complete elimination of shortages. The easing of tensions in one segment is only a signal to reallocate resources to other segments where the troubles are more tormenting or, at least, more risky for the policy-makers.

In any case there is no automatic supply-response, which ensures that price increase and, consequently, the decrease of household demand would lead to the elimination of excess demand. It may or may not — depending (1) on the strength of the syphoning-off effects and (2) on the subsequent supply responses.

Gomulka does not devote sufficient attention to factor 1, the syphoning-off effect, and almost completely omits factor 2, the 'shortage-preserving' supply response. The latter is extensively discussed in *EOS* (see e.g. Sections 19.3–19.6 and 21.4, 21.8 and 21.9).

Under the present institutional conditions the main aim of consumer price increases in Eastern Europe and the Soviet Union is not market-clearing, but the cutting of real consumption. This may be necessary for the sake of macroeconomic adjustments, austerity programmes, etc. These, however, are objectives quite separate from the achievement of market equilibrium. On these occasions, comments can be read in the press to the effect that the price increase will help in getting rid of shortages. Then the price is increased, real incomes decreased — and shortage remains. This is so for the reasons I have just mentioned. Increased consumer prices are accompanied by cuts in imports, by reallocation of output in favour of exports, by cuts in consumption-oriented investments and so on. Those who want to convince the population that price increase will lead to the elimination of shortages will be reassured by reading Gomulka's line of argumentation. I prefer to put the emphasis on the opposite thought: I would like to convince the reader that price increases do not lead unconditionally to less shortage. They may or may not lead to less shortage — that depends not on automatic market forces, but on the very same decision-makers who determine prices on the one hand and supply and 'syphoning-off' on the other.

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[4]See Kapitány, Kornai and Szabó, *op cit*.

It is clear from Gomulka's comments on the consumer market that a more articulated presentation in *EOS* would have helped in avoiding misunderstandings. The restatement in this section of the present note is intended to set out my ideas on consumer prices more systematically.

Conclusion

The preceding two sections of this note cover the main points at issue. There are some other, lesser matters, but these need not detain us here. To repeat: I have found Dr Gomulka's comments constructive and stimulating. They will, I am sure, be helpful both in my future research and in future expositions of my ideas.

(*Manuscript received August 1985*)