

Soft Budget Constraint

Econ4337 Comparative Economic Systems

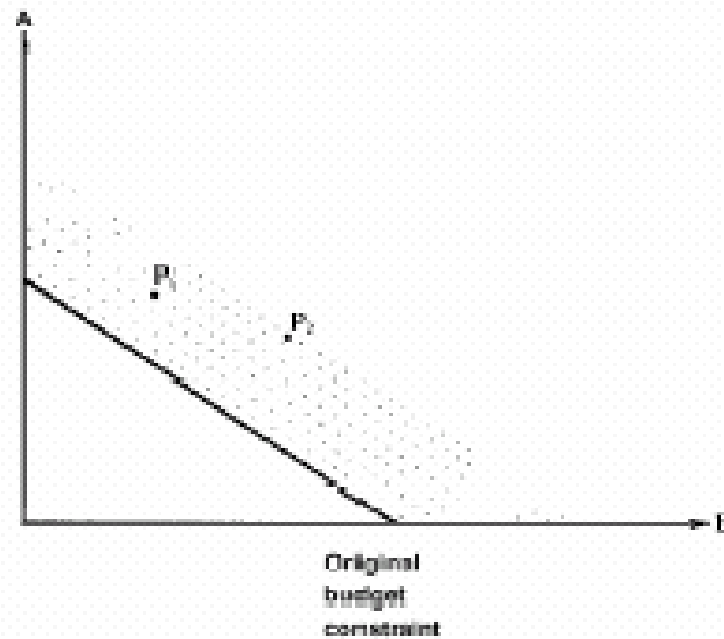
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1 Introduction

SBCs were one of the most important incentive problems in socialist economies.

- introduced by Janos Kornai (1980)
- describe the situation under centrally planned economy (CPE) where the planner could not commit not to bail out money-losing firms.
- now it becomes part of the vocabulary of economics, it also appears in market capitalism in cases such as Chrysler and bail-out of S&L's.

The 'softening' of the budget constraint



Household

Cannot exceed its budget line

- HBC

Enterprise

Can go beyond the budget line to P1 or P2

- SBC

1.1 SBC Types

1. Soft subsidies

Bargained for, lobbying, covers costs overruns

2. Soft taxation

Relaxed rules of taxation, may not pay certain taxes, lowering tax rate according the needs

3. Soft credit

Lending without collateral, repayment is not enforced, no bankruptcy in case of insolvency

4. Soft administrative prices

prices are set by bureaucracy, flexible to go up with increased costs or other economic changes

1.2 SBC vs. HBC

- SBC

The terms might not be favorable, however, terms, prices, quantities, subsidies, taxes, etc. are not fixed, everything can be re-negotiated in any time

- HBC

The external economic conditions are given and cannot be negotiated. Terms are enforced with the final threat of bankruptcy

1.3 Cause of SBC

- Kornai's explanation

the desire of "paternalistic" governments to avoid socially and politically costly layoffs

- Dewatripont-Maskin's explanation

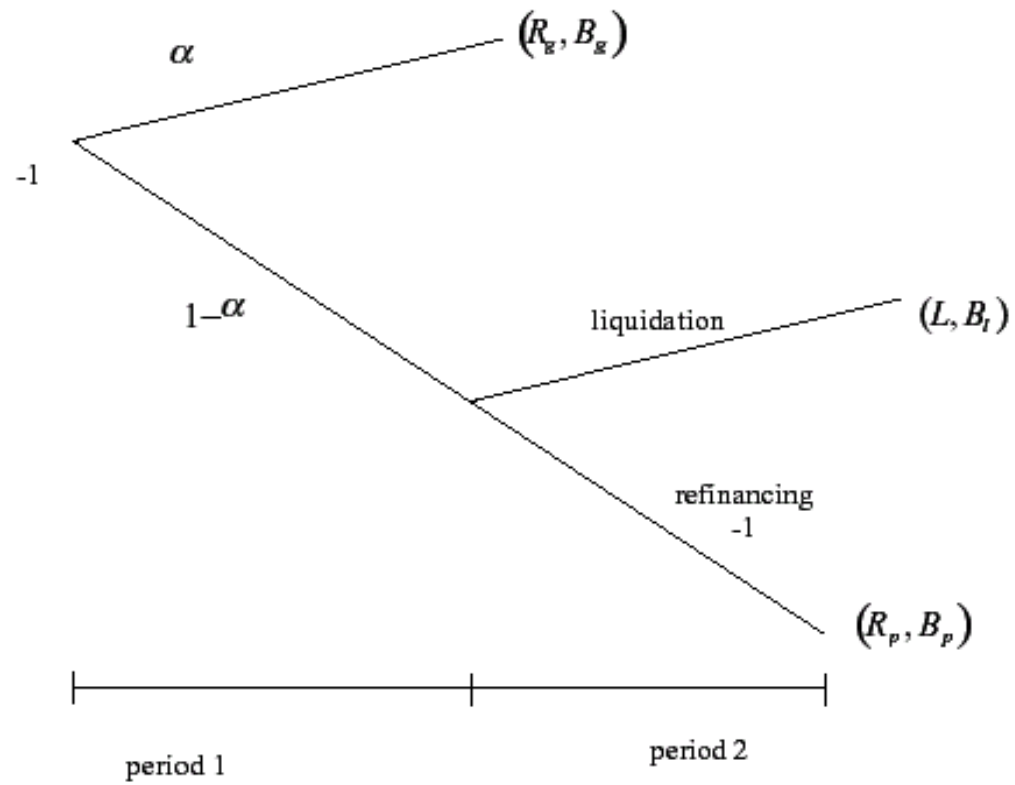
it is a dynamic commitment problems in the presence of irreversible investment

2 Basic Model of SBC

2.1 Setting

- Look at a government-firm relation in a two-period setting
- In the beginning of period 1, firms draw n projects (WLOG normalize to 1) and decide whether or not to submit them to the government (CPB)
- Projects are of two types, good with probability α , or poor with probability $(1 - \alpha)$

- Project type is the private information for the firms, unknown to CPB ex ante, and they all have a start-up cost of 1 monetary unit
- At the end of period 1, good projects yield return R_g and deliver private benefits $B_g > 0$ to the firm's management, poor projects yield 0
- The government can then choose to liquidate the firm's assets with liquidation value L , while management gets a net private benefit $B_l < 0$; or government can choose to refinance the loan, injecting additional one monetary unit to get R_p at the end of period 2, while firm's management gets $B_p > 0$



Government wants to maximize the net returns to investment plus the private benefits of firms.

Firm managers want to maximize their total net private benefits.

2.2 Analysis

We use the backward induction. Let's start from the end of period 2.

Since $B_p > 0 > B_l$, firm draws a poor project will always submit it if it knows the project will be refinanced.

Back to the beginning of period 2, the government will always prefer to refinance poor projects if $R_p + B_p - 1 > L + B_l$.

Such refinancing will be inefficient as soon as $R_p + B_p < 2$.

Projects will be financed if the total ex ante expected return on lending exceeds the alternative return (here is zero)

$$\alpha(R_g + B_g - 1) + (1 - \alpha)(R_p + B_p - 2) > 0$$

i.e.

$$\alpha > \alpha^S = \frac{2 - B_p - R_p}{R_g + B_g - B_p - R_p + 1} \quad (1)$$

Thus, if $L + B_l + 1 < R_p + B_p < 2$ and $\alpha > \alpha^S$, the only subgame perfect equilibrium will be one where poor projects are submitted, all projects are financed, and the poor projects are refinanced. In other words, firms have soft budget constraints.

It is the inability of the government to commit not to refinance that causes firms designing poor projects to submit them. In turn, the inability to commit is due to the initial investment is a sunk cost!

3 Consequences of SBC

1. SBC reduces the firm's responsiveness to price. Hence price will lose the signal role that it plays in the market capitalism, we cannot achieve allocative efficiency if the input and output do not adjust to price signals.
2. SBC acts as the insurance that government provides against risks, hence firms always have expansionist tendencies, create higher demand for input no matter their costs \Rightarrow shortage

3. Long-term loss making firm can survive as long as central authority wants it alive, no bankruptcies, so firms lose the incentive for innovation.
4. The temptation to extract resources from good firms (the ratchet effect) is particularly high when there is an incentive to refinance bad firms (because of SBC).