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## **SOFT BUDGET CONSTRAINTS: CONTRACT APPROACH<sup>1</sup>**

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<sup>1</sup> This paper is based on outputs of research project of Bureau of Economic Analysis Foundation in 2000.

The paper presents some results of soft budget constraints (SBC) study. Section 1 is devoted to discussions of the available theoretical SBC models, Section 2 gives a generalized definition of soft budget constraints in the context of the contractual approach. The SBC are interpreted as a relational contract concluded by agents under weak competitive environment when its infringement in some cases are economically sound as against to break the long-term contract or apply sanction to a violator. Proceeding from this theoretical model the hypotheses are formulated and tested in the Section 3.

### 1. The Phenomenon of Soft Budget Constraints and its Explanation

The concept of “soft budget constraints” (SBC) was introduced by J. Kornai over 20 years ago [Kornai, 1980]. In the initial definition he interpreted SBC as *recurrent actions* of subjects, peculiar *rules of behavior*.

Explicit formulation of this phenomenon as a set of behavioral rules of enterprises, the state in the names of the authorities, credit institutions and foreign investors under the centrally planned economy may be treated as:

to go on financing enterprise’s activity even in the cases when it violates the fixed parameters of budget and if these violations may be referred to desire (intention) to increase production output.

This rule was logically revealed on the base of observed behavioral actions of the mentioned subjects, and its of course informal by nature.<sup>2</sup>

It should be emphasized that under such conditions *every* agent was guided by “common” criteria of economic rationality acting as not to be subjected to informal (but on occasion to formal, for example, removal from the current position) sanctions from one of the parties for efforts to tighten budget constraints. Adherence to the SBC rules was encouraged

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<sup>2</sup> The official documents of the centrally planned economy period are full of slogans for strengthening financial discipline, overcoming “diffusion of investments” and etc.

in the different forms – from the premiums for disbursement of financial resources for investing to awards in promoting to a new appointments.

So the initial SBC definition by J.Kornai denotes one of the centrally planned economy institutions and has *uneconomic* (unless – antieconomic) character. Nevertheless, it didn't hinder the subjects to make rational decisions, but under irrational constraints. As analysis implemented in his book "Deficit" has shown the aim to "ideological" perfection was the base of growing deficit accompanied by ineffective allocation of resources that in it's turn led to collapse of socialist economy.

Meanwhile, the literature survey of the last years shows that the issues of SBC are not subject the economic history only because this phenomenon is also widely spread in the market economy. For instance, in the number of countries the state supported major state-owned enterprises in the case of their insolvency [Maskin and Xu, 1999]; that the Asian crises of 1998 was interpreted as the consequence of SBC [Huang, Xu, 1999]; besides the prevalence of non-money settlements with negative impact on economic growth in the Russian transition economy was interpreted as well by SBC [Pinto, Drebensov, Morozov, 2000], and so on.

The number of in-depth studies was carried out in the arena of SBC *consequences* research. So, from the point of SBC existence there were suggested explanations of firms' boundaries impact on efficiency of R&D [Huang and Xu, 1998]; it was shown that SBC may appear owing to centralization of capital thereby adversely influencing selection of commercial projects [Bai and Wang, 1998]; it was demonstrated that under SBC information generated by free market aggravates decision-making process [Faure-Grimaud, 1996]; it was grounded negative impact of SBC on innovation processes [Quian and Xu, 1998] and etc. (see review of studies in [Maskin and Xu, 1999]).

Insofar *ideological grounds* for SBC existence under the centrally planned economy in all the above-mentioned cases were excluded then there have been set a task to explain SBC proceeding from other grounds.

The preliminary condition for explanation of the situation when the sufferers condone violations of some liabilities to violators is *more precise definition of SBC* in the terms of neoclassical economic theory. The fact is that the initial institutional definition of the SBC given by J. Kornai don't to be in harmony with the theoretical paradigm of the mainstream [Ambrus-Lakatos, 1997, p.2].

Besides that if SBC exert negative influence on creation of value then their tightness is a common *normative* recommendation. Under such circumstances the questions of *what* SBC are, what is the *cause* of their appearance, what is the *consequence* and what is the *form of manifestation*. Appropriate recommendations will explicitly depend upon the answers on these questions.

From this point of view we'll consider the main wording in the SBC definition. Primarily SBC should be interpreted in the context of the problem financial commitment credibility: financial commitments reflect inability of a rational actor to protect original budget against alterations approved as a result of re-negotiations after it's passed [Maskin and Xu, 1999, p.3]. The similar approach was realized under consideration and modeling the another phenomenon intrinsic in central planning – effect of inertia [Freixas, Gusnerie and Tirole, 1985]. As it's known the essence of the last consists in that the planner isn't able to *credibly promise* not to increase the plan output if he's well aware of the real enterprise potential. For this reason enterprises enjoy incentives to conceal and distort information for the purpose of capacity understatement that in the end leads to squandering resources [Milgrom, Roberts, 1992, pp. 233-236].

Such characteristic of the SBC phenomenon originally fixed in the form of verbal description of institution solved the problem associated with its inclusion in the modern economic theory though the definition of SBC isn't formulated yet. To explain SBC from this point of view implies to give an answer on the question what are the reasons of such inability.

L. Ambrus-Lakatos put forward a proposition to interpret SBC as a firm's possibility to survive despite significant and regular losses [Ambrus-Lakatos, 1997, p.6]. In other words if a firm is involved in transactions and it is able, bearing significant and/or regular losses, to make environment act in its favor, i.e. environment doesn't want or cannot liquidate it then it might be said that this firm is surviving. Thereby the SBC problem comes to the answer on the question: Why don't the firm-partners having claims interfere in its activity, strive to meet claims through liquidation of this firm or its sale? The general answer on this question is apparent: they both (1) cannot, or (2) don't want to meet claims.

If the first situation is in place then it means that "injured" party is only in power to voluntarily reconcile conditions on base thereof it cooperate with the firm (despite default), and cooperation itself is business commercial relations by nature, i.e. bargaining transaction by J. Commons. To explain SBC in this case means to give an answer on the question why does the "suffered" party refrain from actions, which might be launched by the third party, on forcing to pay liabilities?

If the second situation is in place then it means that "suffered" party is in power to enforce the firm to meet its commitments, and cooperation between them is of partial submission, i.e. management transaction by J. Commons. To explain SBC in this case means to answer on the question why does the "suffered" party refrain from actions on forcing to pay commitments, i.e. to legally employ violation capacity.

For the purposes of L. Ambrus-Lakatos explanations in both cases are founded on firm's management behavior in particular circumstances named *entrenchment* [Shleifer, Vishny, 1988].

The most well-known interpretation of the SBC phenomenon is a model of M. Dewatripont and E. Maskin (hereinafter – DM model), which treats the SBC phenomenon as a consequence of financing centralization inasmuch only in the frameworks of decentralized crediting financial commitments are made from the side of the banking system not to credit “slow” (ineffective) projects [Dewatripont, Maskin, 1995].

DM model interpreted SBC appearance through credit centralization (broader – any resource of crediting firms) is related to the second type of SBC interpretations indicating the reasons why are defaults *seldom* condoned. Such explanation is in compliance with J. Kornai opinion consisted in that there is a likelihood of *ex post* negotiation on subsidies, taxes, credits and the like [Kornai, 1998]. This model also expresses the idea that the SBC phenomenon springs up because of planner's inability in the frameworks of the centralized system to truthfully promise not to interfere with firm's activity since the plans are approved. The model reveals the reason of such inability – the centralized system of financing itself.

In the light of the above-said we'll show the other description of the situation considered within DM model. Referred the above we mention the conception of cooperation between the centralized facilities and entrepreneur as a game. Let a bank examines two strategies – to finance the project (F) or not to finance (NF) on the one hand, and the entrepreneur on the other hand who can offer the bank to finance the “fast” project (F) given a probability  $p$  or the “slow” one (S) with a probability  $(1-p)$  (see Figure 1).

The pay-off matrix of the first variant of this game is a DM model simplification means that in the case of financing the “fast” project throughout one year the entrepreneur will gain a benefit  $E_c$  while the bank a benefit equaled to 1. In the case when the project is “slow” one

the benefits are equaled to  $2E_c$  and 0, respectively, insofar the revenue derived from the “slow” project only compensate the bank costs (here we disengage from the discount issues of costs and revenues).

#### Variante 1

		Bank	
		F	NF
Entrepreneur	F ( $p$ )	$E_c ; 1$	$0 ; 0$
	S ( $1 - p$ )	$2 E_c ; 0$	$0 ; 0$

#### Variante 2

		Bank	
		F	NF
Entrepreneur	F ( $p$ )	$E_c ; 1$	$0 ; 0$
	S ( $1 - p$ )	$2 E_c ; -1$	$0 ; 0$

Figure. 1. Variants of cooperation between bank and entrepreneur.

If the bank opts for a strategy F its expected average payoff for two periods will be equaled to  $1 \times p + 0 \times (1 - p) = p$  otherwise (in the case of the strategy NF) the payoff will be 0. Apparently *if* in the above situation there is at least one “fast” project it will be credited, i.e.  $p > 0$ , the bank will *always* make a decision about crediting entrepreneur.

In the case of the “slow” project the bank’s payoff will be  $-1$  (the second variant), i.e. the bank bears net loss and expected average pay-off of the F-strategy  $1 \times p + (-1) \times (1 - p) = 2p - 1$ , that excesses 0 (guaranteed pay-off in the case of NF-strategy) only if  $p > 0,5$ . Obviously if the loss of the bank will be over modulus 2, the bank will *never* adhere to the F-strategy so  $p$  cannot excess 1.

So far our analysis in essence coincide with Dewatripont and Maskin one. Exactly as we fix a probability  $p$ , which isn’t known to the bank, that the project will be “fast”

(profitable). However the further course of reasonings may be fancied differently in respect to the considered model.

As it's imagined the other line of reasonings may be constructed proceeding from whether the bank has *a possibility not to play* in the described game, where there are so many unknown variables. If there is such a possibility (for example, along with financing the proposed projects the bank may enter the currency market where the required information for making relevant decisions is available) then under unknown  $p$  it will be more reasonable *not to credit* the entrepreneur's projects at all.<sup>3</sup> It should be stressed that the given bank's behavior is independent whether there is one bank in the economy (centralized financing) or some thereof (decentralized financing). It's only important that a bank face the *incentives constraint* on participation in the appropriate contracts.

If the bank – one or some of them – hasn't alternative ways to invest available resources except investing in projects of inadequate quality then in the decentralized situation action series appear mentioned by Dewatripont and Maskin (monitoring and the like), in the decentralized one there is crediting investment projects cause there are *no other ways to use bank resources*.

So SBC springs up in the DM model for the reason that bank has *no other ways to use resources* except investing them in submitted projects rather than crediting is centralized.

But if *some* banks have no other possibilities except investment ones then their behavior won't be distinguishable from *monopoly* state-owned bank behavior exclusive of resources earmarked for monitoring with the purpose of estimation probability  $p$  for different types of the projects, revealing observable features typical for “fast” projects and the like, while a share of entrepreneurs' funds will be spent on signaling to banks about high profitability of their projects.

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<sup>3</sup> As it's seen namely this phenomenon has been observable in the Russian economy throughout nineties.

In other words the reason of SBC appearance primarily relates not to centralized financing but unavailability of *other alternative ways to command banks' funds*. It's not difficult to note that such situation is typical for the centrally planned economy irrespective of quantity of banks: they are *to perform their function* not having a chance to mobilize resources at their disposal in different spheres (particularly, in the exchange market).

Admitted advantages of the decentralized system in regard to crediting enterprises as a vehicle to provide for high efficiency of used resources via enhancement of reliability of promises in relation to penalize violators were challenged by J. Che [Che, 2000].

The core of his model may be presented as follows. There are two types of enterprises in the economy: "good" (profitable) and "bad" (unprofitable). The latter divides into two subclasses: "frankly bad" those not to be able to operate without loss for one or the other reason (for instance, technological ones), and "opportunistic" those having a chance to be lucrative after restructuring implementation (this incurs certain costs from their side), however they are remained of their own opinion – not to transform the working process. If all these classes are quite comparable within the number of enterprises and their shares then the similar structure may be reputed as characteristic for many countries with economy in transition and this premise is important for the further discussions.

Imagine that there is a sole bank centrally crediting all the enterprises. Its performance with profitable banks doesn't bear any distinguished feature as compared with conditions in the decentralized system unlike cooperation with "frankly bad" and "opportunistic" enterprises. The author proves that in the given conditions the bank *has to credit* such enterprises, in other words to provide them for SBC, otherwise macroeconomic stability will be unbalanced, and it may do it so inasmuch owing its size the bank can *internalize pecuniary externality* arising as a result of activities produced by array of all the enterprises during supporting stability. Although such bank behavior undermines incentives associated with

enhancement of efficiency of *every* enterprises, first of all “opportunistic” ones, it keeps these incentives for “good” firms, which would lose them under instability circumstances.

Creation of completely decentralized financial system in economy similar to described one will lead the situation when the “bad” enterprises will be liquidated thereby engendered macroeconomic as well as social-political instability taking the shape of economic collapse.

The key premise of the model leading to these conclusions is assumption that *productive capacities of every enterprise (during the timeframe considered in the model) are strictly limited and cannot be expanded*. Otherwise there will be a chance to allot resources in favor of “good” enterprises allowing maintenance macroeconomic stability having simultaneously liquidated unprofitable enterprises.<sup>4</sup>

With an allowance for these provisions common type of dependency, which should be between levels of domination on market and SBC in the case when the above-mentioned conclusions are correct, may be presented as follows: *the weaker competition which a firm realizes in the market of its product the higher probability of its domination and thereby the wider its potential to cover own financial commitments at the expense of holding up prices for its product line*. Besides that market competitive capacity may be appeared in other forms softening its budget constraints: primarily tractability of the partners in the context of sanction non-application against such a firm, great impact on local authorities in respect to granting different forms of privileges and the like.

## 2. Soft Budget Constraints as a Relational Contract

If we generalize the above interpretations then it might be noted that they reduce to the one: SBC are the mode of behavior of actors cooperating within explicit or implicit *contract* when *non-redeeming of promises from the one party doesn't bring about sanction from the other party*; on the contrary the latter party carry on to collaborate with violator, furnishing

resources not payable on demand. Let's consider this generalized definition of the SBC in details.

It should primarily paid attention to the fact that such way of behavior is of frequent occurrence among *most of private contractors* not being *centralized facilities of crediting* for enterprises. For instance, a number of subsidies are in the Russian economy are granted not only from (1) federal and regional authorities (2) monopolies such as RAO EES or Gazprom but also from (3) firms-contractors and (4) own employees resigning to wage loopholes as well [Pinto, Drebenstov, Morozov, 2000].

If the resources of crediting such as are reminiscences the centralized facilities, debt writing-off from the side of the third credit resource may be partly interpreted that they serve *de facto* as a link (transfer channel) of centralized subsidies [Vyplosh, Ivanova, 1998, p.8-9], while the grounds for such behavior from the forth crediting resource are not to be explained by the factor of centralization. Proceeding from DM model anyone can expect that an enterprises itself being a centralized financial resource for own employees will soft budget constraints for them however in practice the reverse is the case.

Hence the factor of centralization serving as the base ground for SBC both in microeconomic DM model and macroeconomic model by J. Che is an *attendant feature* of others deepen reasons for condoning inappropriate behavior of one party by the other within contractual relations.

Generally the reasons why contracts aren't stern enforced to be perform are considered in economic theory of contracts [Williamson, 1975], [Klein, Crawford and Alchian, 1978], [Grout, 1984]. From this point stringent enforcement provides of contract performance encourages sellers (producers) to make investment in specific assets within the contract. In question if producer isn't sure that order requiring extra resources, which might be assigned

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<sup>4</sup> In the light of this it should be stressed that market entry and exit barriers are crucial when the conclusions of this model are applied to the real economy. As it's well-known in Russia the both types of barriers are wide so the given

for others products, will be paid then producer is keen to minimize this kind of costs unless repudiation to pay extra costs is in place. As a result this output may be produced if it isn't paid in advance.

Nevertheless, potential on stern enforcement of contract performance is bound by its imperfection (incompleteness). Incompleteness of the contracts may be distributed into four reasons. Firstly, costs of imperfect language when sense comprised in the contract is distorted and assumes different interpretations. Secondly, prohibitively high costs of making a complete contract connected with high costs of search needed information and bounded rationality of contracting subjects. Thirdly, it's too costly to identify terms of contract in court or another authority. In particular if one of the parties must spare no efforts to perform a contract and this is stipulated in it then this term isn't to be seen except this part itself. As a result there is no force to perform this term. Fourthly, the party can deliberately conclude incomplete contracts. In doing so they expect that consequences of such incompleteness won't seriously harm them. Grounds for such expectations are primarily rested upon a possibility to revise a contract, i.e. in fact signing of relational rather than classical or neoclassical contracts [Williamson, 1985].

Owing to the above-mentioned reasons one can assert that weak enforcement of contract performance isn't exception quite the contrary it's a common manifestation. Accordingly SBC of a firm are typical as well and legal action in respect to contract breaker is exception to the rule.

*De facto* in the frameworks of the Civil Law delay in payments within three months is allowed. Data confirms that turnover of inter-firms overdue non-payments in the countries with emerging markets are compareable with analogous figures in the countries with free markets [Schaffer, 1998]. In other words existence of *really soft* budget constraints may be

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prerequisite isn't an impediment under its use to the explanation of domestic economy dynamics.

only testified by the fact of condoning violation of contract terms *out of the bounds* of delay related to their performance under the law.

Another conclusion of expounded contract treatment should be mentioned as well: *bail-out of one contract violation may be regarded as a decision made within proceeding implementation of the overall and long-term contract covering the broken one (in fact neoclassical) contract*. In other words the fact itself that the “suffered” party hasn’t recourse to the law and goes on to cooperate to the violator means *instead of external* state controlling a contract the “suffered” party puts in operation internal mechanism of such governance identical to the nature of relational contracts.

Insofar such relational contract characterizing long-term inter-firm relations is in nature of informal or implicit one its precise performance may be regarded on the part of observer as a “unexplainable” bail-out sporadic violations of contractual terms by the “suffered” party. Thereby realizing the nature of SBC on the base of observance for *occasional* contracts are thought *limited*.

Others arguments in favor of relational conception of those contracts where bail-outs some obligations by the “suffered” party is a common case are brought by another phenomenon as industrial network.

As a matter of fact cooperation of enterprises inside of industrial network conditioned by recurrent cooperation of its members gives all the grounds to interpret occasional violations of terms as certain rules of game where the current losses are compensated at the expense of future interactions [Powell, 1990]. If these violations are systemic and not compensated then breaker isn’t only removed from network (informal sanction) but made be a bankrupt as well. At the same time during period of network membership it’s easy to see that budget constraints are soft. Inasmuch conception of industrial network doesn’t assume existence of the central element regulating behavior of the other members of this informal

organization [Forsgren et al., 1995] then SBC phenomenon is in place though *the central source of crediting is absent*.

In particular, it was above-mentioned the study expounding that SBC adversely influence innovational activity of enterprises [Quian and Xu, 1998] so it's expected deterioration of innovational process quality. However, in accordance with an alternative theory business-groups can be served as organization facilitating modernization processes when access to the financial market is limited [Kali, 2000] moreover this conception is justified for empirical data inherent for economies in transition.

In connection with discussions and grounds of contractual nature of SBC attention should be drawn to one moment, namely, the nature of *subjects* of such a contract. Besides existence of this phenomenon in relations *between firms* all-round and permanent formal violation (and bailing-out of such violations) of budget constraints happens *inside of a firm* as well which structure includes *centers of costs and centers of profits*.

It's important to emphasize for example that both centers of costs and centers of profits inside of holding structure may be incorporated. In this case the formers if we consider as incorporated enterprises (firms) will enjoy SBC bearing (because of certain intra-holding transfer prices) long-dated losses compensated by subsidies from either head company or centers of profit.

Important for our discussion the fact that incorporated centers of profit and costs one of them are formally ineffective "legal" firms *positively* influence use of resources and value creation within comprehensive firm on the whole. Thereby realization of requirements to harden budget constraints for formally independent enterprises, in essence acting as centers of costs in one formal or informal "big" firm will come to negative economic outcomes from the point of value creation.

Following strict logical definition of SBC as specific relational contract its subjects are to be “real” or *economic firms* rather than firms – legal entities. Along with this such precise definition of SBC can make it non-working. In question to determine the bounds of the firm is difficult theoretical (as well as practical) task. Distinguished features are appeared when mentioned phenomenon of industrial network, co-existence and over-lapping of formal and informal business-groups are introduced.

As it's seen the definition of economic firm may be operationalize on the base of contract approach. In effect nowadays that's publicly admitted that any (voluntarily established) organization has a contract nature: its grounds rest on long-term agreement between participants about their cooperation (including use of a wide range of resources) in order to hit the aims [Cheng, 1970].

From our point of view the reversed is fair as well: “any contract under stage of its implementation forms concerned organization. Presence of parties or contractors and their assets in respect to proper use thereof and mutual obligations the contract is concluded, i.e. distribution of roles or functions between them in the course of joint activities then the full range of organizational signs is in place. There is only one thing not intrinsic in voluntary contract – quite significant length and stability of existence of different systems of subjects and their resources originated by it. Therefore we can insist that most of contracts beginning with those that concerns buying-selling cause appearance and liquidation of ‘virtual’ organizations” [Tambovtsev, 1996, c. 152].

In other words market is traditionally opposed organizations may be presented as aggregate of establishing and at the same moment liquidating – virtual – organizations acting as “links” or “channels” as perform exchange of resources between sustainable “bunches” of long-term contracts – i.e. firms. In this aspect Herbert Simon approach [Simon, 1991] suggested to talk about not market economy but organizational one doesn't withdraw a

contradistinction between market and firm. “Green spots” of firms and “red” market links between them are not only of different colors but also has another nature of functioning in his opinion.

So if we logically follow definitions of the contract concepts it's too hard to draw a bright line between market and organization, market and firm: they are corner points on the rather long scale covering different forms of subject and resources cooperation in either event oriented to meet needs of one or another consumer.

Along with this in practice the distinctions between market economies and economies so called “united factory”, firm and free market are clearly drawn. It implies that there are thresholds, which in combination with others features reveal called empirically identified phenomena.

In our opinion character (or structure) of a contract which performance impacts on interactions of economic agents may serve as such a threshold. If the similar contract provides for delegation of rights for signing of others contracts to one of the agents (the “central” agent) who can act as a representative of the others then we have grounds to talk about creation of organization. Such organizations where base contract performance oriented to value creation are economic firms. If the contract being under performance is enjoyed the status of *legal entity* in compliance with the rules of higher levels then a formal organization or “juridical” firm appears.

Thus the “suffered” party doesn't use a penalty if future violator's services will gain more benefits versus those derived in the case of immediate application of sanctions (for example, in the case of initiating proceedings about bankruptcy of non-payer).

Under such circumstances it's clear that the choice – to wait or have recourse to the law – depends upon economic environment encompassed the certain incident. Here there are possible two basic alternatives.

I. If the given economic environment is so that “suffered” party

- (a) operates in the conditions of competitive market (another partner is simply found),
- (b) the court system functions under low costs and without significant frictions (including enforceable judgement),
- (c) assets of obligations’ breaker might be sold fast and under low costs,

then most likely that the injured party will be inclined to break relations with violator and have recourse to the law. Thereby SBC are not in place under such environment.

II. If one of the above conditions isn’t observed then likelihood to go on cooperation (i.e. bailing-out of breaker) most likely will be higher than recourse to the law. Under such circumstances when trade assets are specific and transaction costs are high protection of originally occasional (neo)classical contracts will tend to transform in long-term relational contracts presuming regular re-negotiations and re-agreements of parties and internal mechanisms of conflicts resolution. As a result SBC are in place.

Conducted analysis allows construct a *system of SBC definitions* (or interpretations) every thereof stresses one or another component of the given complex phenomenon. In our view SBC are manifested at two levels of analysis:

- (1) for interacting subjects as certain (time) integrity;
- (2) for certain subject (one of interacting thereof).

Despite the level SBC can be submitted in the terms of contractual relations.

In the first case SBC may be treated as a line of behavior by way of (uncertainly) long-term *relational contract* performance process including the chain of occasional transactions, which prompt performance doesn’t *lead to immediate* sanctions to the breaker from the side of the sufferer. Such line of behavior can be explained by the fact that net present value in the case of this contract performance is higher for the parties than created one after contract cancellation foreseeing compensation.

In the second case for the party *having obligations* before the other one SBC may be presented as a line of behavior not *envisaging* measures needed these commitments are to be met which (measures, actions, decisions) would maximize created value; instead of them actions primarily oriented to value re-distribution at the expense of use of dominated position in the market are undertaken;

for the party, which *enjoys commitments to itself*, SBC are readiness for bailing-out a potential breaker of prompt commitments performance proceeding from the expected benefits associated with going on cooperation with it; incidentally the mentioned benefits may have a status of merit good, newly created value or re-distributed one in favor of certain subject.

### 3. Soft Budget Constraints in Russian Economy

#### 3.1. Forms of Soft Budget Constraints

Economic environment, in which the Russian firms operate is much closer to a case II, than to a case I. Actually, domestic commodity markets can be characterized as moderate competitive [Tsukhlo, 2000], therefore costs of searching business partners are quite considerable, not mentioning the losses of capital at informal relations with partners (social capital).

The work of judicial system differs by considerable periods of time and costs, the processes of executing the adjudications are also long. The comparative subjective estimations of Russian judicial system's efficiency are given in [Hellman, Jones, Kaufmann, Schankerman, 2000, p.25-26].

Finally, the absence of an developed securities market and impossibility to estimate the cost of an enterprise, may lead to the situation when the sale of infringer's property will be held at price which does not compensate losses of injured party. Taking these circumstances under consideration, the decision of injured to continue the relationship with infringers of contract obligations seems to be quite rational.

SBC may take different forms of forgiving the infringers of obligations and their support when they are in a difficult situation. The most wide-spread and typical for Russian economy are the following forms of SBC:

- The direct government subsidies to enterprises;
- The indirect subsidies in the form of low fixed prices on output (first of all, the services of natural monopolies);
- Federal and regional tax discounts, and duty discounts;
- The subsidized loans, providing the guarantees for loans;
- Overdue payments which not lead to sanctions in the form of bringing a bankruptcy action, including the payments for federal budget, regional and local budgets, to the contractors, overdue payments on wages;

In the following we will make an attempt to estimate the scale and the size SBC' expressions both at the level of separate industrial enterprise (with the use of data collected during special survey conducted by Russian Economical Barometer in October, 2000) and at the level of the national economy (with use of Development Center's database which contains monthly series for 1993 - 2000), and then to test the formulated hypotheses.

### 3.2. Analysis of Nonpayments' Dynamics in Russian Economy

The characteristic of SBC as a form of relational contracts, provides the ground for their dynamics' analysis on the basis of institutional market model [Tambovtsev, 2000]. According to this model, the choice of contractual form of exchange made by the users can be described as coordination between seller and buyer on the market of differentiated product, where economic goods taken together with all their transactional properties play the role of objects for sale and purchase. Therefore the distinctions in commodities caused by their transactional properties are very similar to distinctions of commodities by their trademarks.

Among the factors, which influence the choice of such goods (as in case of any market

with differentiated product), there may be consumers' preferences for various trademarks, prices of differentiated products, the size of budget constraint.

For enterprises signing relational contracts ("vertically" with the state and employees, and "horizontally" with suppliers and consumers) about rigidity of requirements concerning the terms of payment, obligatory use of sanctions etc., - in other words, all which is included into the concept of SBC - the appropriate choice is determined both by a combination of positive and negative consequences of using SBC and size of disposable monetary resources before concluding the deal.

Besides when analyzing SBC it is necessary to take into account the following: the process of learning to effectively use the appropriate contract forms does not happen too quickly and instantly. This process was carried out in the form of social learning that should explain its dynamics described by the graph, close to S-like curve.

In fact, if we consider such parameters as deflated volumes of overdue debt for creditors and overdue debt of debtor accumulated by enterprises during January 1992 - January 2000, we will find that the first of them is described by logistic equation:

$$Y = 768858,5 / (1 + \exp (-0,094x + 5,88))$$

with  $R^2 = 0,99$ , and the second one is described by logistic equation:

$$Y = 436869,1 / (1 + \exp (-0,083x + 5,13))$$

with  $R^2$  also equal to 0,99 (here  $x$  is an ordinal number of month of examination).

This mentioned circumstance makes the econometric analysis of SBC in Russian economy more difficult, since the construction of nonlinear regress equations does not tend to be an easy matter. At the same time, as these nonlinearities are in essence caused by process of social learning, i.e. reproduction of their business partners' experience, it is possible to include trends and/or autoregressive components instead of logistic curves in specifying equations.

Thus, the following system of equations can be written to explain the dynamics of various observable indicators of budget constraints' softness, appropriate to their contract background: *there should necessarily be included as the part of explaining variables the parameters characterizing the financial situation at enterprises, as well as time or value of the explained variable in the previous period of time.* Besides it is possible to include some other variables, if there are any substantial basis for it.

Before providing the results of conducted calculations on the models created according to outlined logic, we will describe the characteristics of relationships between variables, which are to be treated as causal. For their analysis the Granger test was used [Granger, 1967].

The calculations have shown that during January 1992 - April 2000 the overdue debts on wage with probability 0,97 created the overdue debt for creditors of the industrial enterprises, then the overdue debt for creditors with probability 0,99 created the overdue debt of debtors, which, in turn, with probability 0,97 led to overdue debt for creditor (in other words, there was a positive feedback between the overdue debt for creditor and overdue debt of debtor). During the mentioned period of time the similar positive feedback could be observed between overdue debts of debtors and overdue debt for budget: the first one created the second one with probability 0,97, which in turn caused the first one with probability 0,94 (all estimations are statistically significant with 90 % probability).

As the investigated period included two obviously non-uniform sub-period (from the beginning of market reforms till August 1998 crisis, and since September 1998 till April 2000), the similar calculations were made for each of these periods separately. The analysis has showed that before the crisis the overdued debtor debt caused both the overdued creditor debt (with probability 0, 99986) and overdued debt for budget (with probability 0,99987). Concerning the time after crisis there are clearly be seen the positive feedback between the

overdue accounts payable and overdue debt on wage: the first one cause the second with probability 0,96, which creates the first one with probability 0,98.

These described results, especially for a before crisis period, are of considerable interest, as they clearly illustrate the role of victims' readiness to forgive the infringements of terms of payment according the signed agreements: this factor being one of the main for SBC was responsible for the overdue debts for creditors and nonpayments to budgets. At the same time, this observations does not seem to be the only one for explaining the dynamics of SBC' indicators.

Now we provide the results of conducted analysis for one SBC' indicator — the overdue debt on wages. The first step is to check a hypothesis concerning the existence of social learning effect, i.e. concerning the adequacy of describing the given dynamics by equations of autoregression.

The equation of a kind  $ODW_t = C_1 + C_2ODW_{t-1} + \varepsilon_t$  (where ODW - overdue debt on wages), was evaluated for two sub-periods: 02.1994 - 08.1998, during which the process of social learning seemed to be the most intensive, and 08.1998 - 02.2000. For the equation describing first sub-period determination coefficient turned out to be rather high ( $R^2=0,997$ ), the F-statistics is equal to 15683,03, DW = 1,54,  $C_2 = 1,02$  with error 0,008 and t-statistics 125,2. For the equation describing second sub-period  $R^2= 0,96$ , F-statistics = 396,8, DW = 1,73,  $C_2 = 1,0$  with error 0,05 and t-statistics = 19,9.

Thereby, it is possible to consider the hypothesis about a role of social learning in constructing the dynamics of wage nonpayments quite confirmed.

Multifactor regression equation appropriate to above formulated principles can be constructed in several variants. One of most suitable forms was the following specification:

$$ODW_t = C_1 + C_2NL_t + C_3NA_t + C_4ODW_{t-1} + C_5ODB_t + \varepsilon_t,$$

where NL – net liquidity ratio, NA – net assets of industrial enterprises, ODB - overdue

debt for budget. All the coefficients (except for  $C_1$ ) are statistically significant, besides  $C_2$  and  $C_3$  are negative, and  $C_4$  and  $C_5$  are more zero.  $R^2$  is equal 0,99, F-statistics = 4551,9, DW = 1,52. What is especially remarkable here is the sign at ODW: it is the evidence of the fact that accumulation of debts on wages and for budget is not considered to be alternatives for enterprises. Generally according to the above equation, debts on wages as the measure of the given component of budget constraints's softness is explained by deficit of own monetary resources (liquidity) of enterprises, and experience of "unrisky" (imprudent) behavior accumulated by managers of enterprises.

All these results correspond with conclusions made in investigations by R.I.Kapelyushnikov [Kapelyushnikov, 2000], according to which managers consciously regulate the scale and duration of wage delays, keeping them on a sufficient distance from those borders, behind which they expect serious social conflicts at their enterprises to occur. From the managers' point of view, actual credit from employees could be covered at the expense of bank credits only if that interest rate would be *negative*! Thereby, for enterprises wage delays and its nonpayments are the results of rational decisions which take into account managers' expectations concerning the "bailing-out" behavior by managers' "victims". There is also another interesting fact stating that competition pressure does not effect managers' behavior. This fact underlines the peculiarities of competition between enterprises, that is the availability of soft budget constraints in dimension «employer - employee».

The dynamics of SBC' indicators as the overdue debts for creditors of industrial enterprises, overdue debt of debtors, overdue debt for budget is described by similar equations with close values of statistical criteria concerning the quality of received parameters.

### 3.3. Analysis of Soft Budget Constraints' Factors at a Level of Industrial Enterprise

If taking into account the above mentioned facts about relationship between the degree

of rigidity (softness) of budget constraints, market competition, the degree of SBC' influence on restructuring processes, it is possible to point out that if SBC contract model is correct and the model of institutional market is adequate to real situations of making the strategic decisions at enterprises, the main alternatives between which such choice is being made, are characterized as follows:

(1) competitive market – hard budget constraints - restructuring the enterprise - effective usage of resources

(2) noncompetitive market (domination on the market) - soft budget constraints - absence of restructuring - inefficient usage of resources

Let's now consider the outlined variants in more details. If the market where the enterprise operate is highly competitive, then it can not broadly and regularly use cost-plus pricing for softening its budget constraints (that is to compensate all actual costs by the price). The appropriate opportunities arise when the enterprise enters the market with new product range, becoming a (temporary) leader that allows it to make the price. It is possible to use this mode regularly only if such firm regularly makes restructuring (re-ingeneering), ensuring there will be a constant efficiency raise in using the resource potential of firm.

On the contrary, a stable dominant position enables firm to regularly apply cost-plus pricing to cover costs caused by the kinds of decisions about resources' usage. Thereby, the incentives to making restructuring are becoming weaker. Hence, the steps creating the ground for dominant market position of some enterprises (which in turn helps such enterprises to survive) at the same time lead to efficiency decrease of resources usage in the economy.

The provided basis for the above mentioned forms of enterprises' behavior are still the hypotheses, which we have examined on materials of the Russian industrial enterprises' survey. The survey has covered 177 industrial enterprises, which distributed by industries as follows: machine-building - 27,1 % of the respondents, metallurgy - 4,5 %, electric power

industry - 0,6 %, chemistry and oil-chemistry - 7,9 %, light industry 14,1 %, food-processing industry 14,1 %, industry of building materials 9,0 %, wood manufacturing and cellulose and paper industry 11,9 %, fuel industry 1,1 %, other industries 6,8 %.

We then describe general distributions of given answers to the questions. 18,6 % of the whole quantity of answered to the question about frequency of partners' changing, answered that they changed their partners quite frequently, 48,6 % of the answered said they changed the partners occasionally, 32,2 % - almost did not change. In other words, a majority of respondents (more than 80 %) are the participants of more or less stable business groups.

4,5% of the answered regularly received some economic support from regional authorities, 22,6% received it from time to time, and 72,3% - nearly never. What is essential is that the produced figures are a bit lower than the mentioned above results of survey conducted by Russian Economic Barometer, according to which about 40% of enterprises received some kind of support from federal and regional authorities.

2,8% of the enterprises regularly received some economic support from partners, 29,4% received it from time to time, 66,7% - almost never.

29,4% of the enterprises are expecting tax authorities not to apply rigid sanctions for delays in paying federal taxes for the term of no more than month

37,3% - for no more than 3 months

Total - 66,7 %

9,6 % - for no more half-year

6,8 % - for no more than 1 year

8,5% - for up to 1,5 years.

24,9% of the enterprises are expecting tax authorities not to apply rigid sanctions for delay of payment the regional taxes for the term of no more than a month

36,7% - for no more than 3 months

Total - 61,6 %

14,7% - for no more half year

7,9% - for no more than 1 year

6,2% - for up to 1,5 years.

41,2% of the enterprises are expecting their bank not to apply rigid sanctions for delay with paying the back the credit for the term of no more than a month

22,0% - for no more than 3 months

Total - 63,2 %

9,6% - for no more half-year

4,5% - for no more than 1 year

1,7% - for up to 1,5 years.

20,9% of the enterprises are expecting their supplier not to apply rigid sanctions for delay of paying for received materials, raw material, etc. for the term of no more than month

42,9% - for no more than 3 months

Total - 63,8 %

19,8% - for no more half-year

4,5% - for no more than 1 year

4,0% - up to 1,5 years.

The comparison of these distributions of expectations allows to make a conclusion of them being very close for all types of the contractors if we make an assumption that the delay of payment for no more than a month and for no more than 3 months (that is the allowable term for delay when fulfilling the obligation under the Civil Code of Russian Federation) are being within the same interval. If that assumption is accepted, then most “soft” partners will appear to be tax authorities on regional component of taxes, and most “rigid” - again tax authorities but on federal component of taxes. However if taking the *structure* of the

mentioned three-month period of time into consideration, the most “rigid” partners will be the banks, as a share of enterprises expecting the sanctions come up already after 1 month of delay is higher than any other share. On the whole the received distributions are close to expected ones.

2,8% of the enterprises have estimated the domestic market of their production as the highest competitive, 5,15 – highly competitive, 42,9% - moderately competitive, 35,6% - low competitive, 8,55 - actually uncompetitive (5,1% - did not answer the question). Thus, the overwhelming majority of enterprises consider the markets of their products as average and low competitive; and such conclusion is correlated with the data published by S. Tsukhlo [Tsukhlo, 2000].

9,0% of participants have evaluated the world market of their products as the highest competitive, 8,5% - highly competitive, 14,1% - moderately competitive, 14,1% - low competitive, 14,7% - actually uncompetitive (39,5% did not answer the question).

On the question about a situation with restructuring of the enterprises the following answers were received:

The restructuring has recently been conducted or is being conducted now - 28,2%;

The restructuring will be conducted in the near future - 8,5%;

The restructuring is possible in the long term - 15,8%;

The restructuring is desirable, but there are no possibilities for it - 29,4%;

There is no need in restructuring - 15,8%.

In other words, about 30% of the enterprises have been restructured or are being restructured (we will call such undertakings as restructured ones), 25% consider the restructuring potentially possible, and for about 30% it is desirable, but impossible for one reason or another, 15% does not find it necessary.

Having provided the general characteristic of answers to the questionnaire we proceed

with the analysis of relationships between them, i.e. try to check up the hypotheses formulated above.

First of all, we shall describe the pair relations in the form of correlation between distributions of the received answers. Since the majority of examined variables are measured in ordinal scale, there may be used Spearman and Pearson correlation coefficients which were calculated with the use of the data. It is necessary to note, that as a whole number of statistically significant coefficients (at level 0,01 or 0,05) is not considerable, and their absolute values, as a rule, are lower than 0,5. The rather high values of the mentioned coefficients (larger than 0,5) take place for those variables which are close to them by sense.

The degree of belonging to business groups (Pearson coefficient is equal 0, 212 with significance 0,01) is negatively correlated with the frequency of using cash payments for supply, that corresponds to the assumption about the informal character of such groups. At the same time the significant relationships between participation in business group and the level of support from business partners has no been revealed. There also has not been found any statistically significant correlation between variables measured in ordinal scales, and such parameters as support from regional authorities and support from business partners.

The statistically significant correlation has been revealed between level of market competition and the softness of budget constraints: Pearson correlation coefficient between level of budget constraints' softness (on the federal taxes' component) and the level of domestic competition was equal to 0,164 with significance 0,05; between budget constraints' softness (on the regional taxes' component) and the level of domestic competition was equal to 0,193 (with significance 0,01); between budget constraints' softness (on supply payments) and the level of domestic competition was equal to 0,249 (with significance 0,01).<sup>5</sup> The appropriate Spearman correlation coefficients are equal to 0,193, 0,182 and 0,154 with

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<sup>5</sup> The statistically significant correlation with world competition has not been revealed.

significance 0,05. In other words, if making conclusions from provided estimations, it will be correct to state that the enterprises operating in more competitive environment tend to expect softer attitude to them from business partners in the case of payments' delays. Though the pointed relations are rather weak, they obviously do not correspond to the hypotheses formulated at the beginning of the section. Therefore it is necessary to examine the revealed situation in detail using others variables measured within the framework of analyzed data.

One of the possible explanations may be the fact that regional authorities which determine the rigidity of their attitude towards the tax non-payers, consider a higher level of competition as the cause of necessity to support and protect tax non-payer against "excessive" competition from "strangers".

Similarly one can explain the softness of suppliers' position, taking into account the fact that the majority of respondents are the participants of more or less stable business groups. In these conditions greater partners' softness towards the obligations' violators which operate in highly competitive environment, can be the main form of support inside business groups which have been revealed as an answer to direct question about intensity of similar support (among the prompts to this question has not been mentioned such factor as the possibility of a partial forgiving the payment terms' infringement; probably, this circumstance caused the appearance of the mentioned above paradox conclusion concerning absence of correlation between a degree of participation in business groups and level of support from business partners).

Concerning the relationship between softness of regional authorities' attitude towards tax payment and rigidity of competition pressure on an enterprise, the formulated assumption and hypothesis are confirmed by the results of the special regional tax incentives examination made in [Kolomak, 2000, with. 33-34].

Thus, our hypothesis about correlation between level of competition and hard budget

constraints has to be corrected for regional authorities' position. The last one, if implementing a protectionist policy concerning the enterprises whose poor financial situation can be explained by competition pressure (and not at all, for example, by unwillingness to restructure) make the appropriate budget constraints softer. Hence, the initial hypothesis should be supplemented by the condition of regional authorities' neutrality to financial situation at local enterprises, but this condition in practice does not often work [Desai, Goldberg, 2000].

We then proceed to analysis of pair relations between the factors measured in different, not only in ordinal scales. The correlation analysis here can not be used, therefore tables of cross distributions of examined variables will serve as the main toolkit for the analysis.

10% of the restructured enterprises estimate their product competitiveness on domestic market as high and very high, 62% - as average, 28% - as low, 0% - as very low. 8,6% of the nonrestructured enterprises evaluate their product competitiveness on domestic market as high and very high, 57% - as average, 26% - as low, 9% - as very low. 38% of the restructured enterprises evaluate their product competitiveness on world market as high and very high, 20% - as average, 8% - as low, 0% - as very low (34% did not answer the question). 29% of the nonrestructured enterprises evaluate their product competitiveness on world market as high and very high, 21% - as average, 9% - as low, 4% - as very low (36% did not answer the question). Therefore, there are some differences in estimations of product competitiveness given by restructured and nonrestructured enterprises. But the more positive answers to this question are given by restructured enterprises. At the same time, the mentioned differences can not be considered substantial.

4% of the restructured enterprises consider the domestic market as highly and highest competitive, 52% - as moderate competitive, 34% - as low competitive, 2% - as very low competitive. 9% of the nonrestructured enterprises evaluate the domestic market as highly and

highest competitive, 39% - as moderate competitive, 36% - as low competitive, 11% - as very low competitive. In this case there are some significant differences: among nonrestructured enterprises the share of those which work in highly competitive environment, is twice higher than share for similar kind of restructured enterprises (average share on sample is 8,1 %). Hence, it is possible to assume, that the restructuring while increase product competitiveness, also improves competitive market position of enterprises and makes this enterprise one of leaders of the appropriate market.

To examine this hypothesis we will make a comparison between the data on restructured enterprises and those enterprises which would like to restructure but have no opportunities. This choice of data for comparison is explained by the following: an incentive to restructuring may be provided by high competition (that is if these enterprises were in competitive environment). So, in the chosen group of enterprises 13% of the answered to the question consider domestic market as high and highest competitive, 46% - as moderate competitive, 25% - as low competitive, 10% - as very low competitive. It is easy to see that the indicated data confirm the formulated hypothesis.

Let's now consider the relationship between level of domestic market competition and degree of regional authorities' support. 37,5% of the enterprises which regularly has had such support consider domestic market as low competitive, 50,0% say that this market is moderate competitive and 0% say that domestic market is highly competitive (12,5% did not answer this question). 50% of the enterprises which had the mentioned support only occasionally, consider domestic market as low competitive and very low competitive, 40% - moderate competitive and 7,5% - highly and highest competitive (2,5% did not answer). 43% of the enterprises which almost never had support from regional authorities have underlined that domestic market is low competitive, 43% said the it is moderate competitive, and 8,5 % - highly competitive (5,5% of respondents did not answer the question).

Therefore we may conclude that the higher the regularity of support from regional authorities, the higher the probability of these enterprises having the dominant position on domestic (or local) market and the less competitive market is. When making a comparison between the provided data and the conclusions made on the basis of correlation analysis, one may find some formal discrepancy between them. However this discrepancy is only real as we analyze two different forms of support. Above we have mentioned a positive correlation between informal tax discounts (actual long term bailing-out tax nonpayers) and competition level for an enterprises, we now examine a direct support of enterprises positively correlated with the role of the enterprise for region and its dominant position.

Thereby, regional authorities tend to help both competition leaders and outsiders. It is quite possible that by the similar reason of such support (positive short and intermediate term externalities of regional level) the motives for support may be different. The dominant enterprises are supported by credits and investments which helps further to develop and strengthen their market position, but outsiders (functioning in the high competitive environment) are supported by informal tax discounts, since the refusal of their support will cause negative social consequences (growth of unemployment) and will not help to full the regional budget. It is quite obvious that the analysis of motives for regional authorities' actions can not be conducted on data of this research and requires the data of another (sociological) character.

What is the relationship between competition level and enterprises' support from business partners? 20% of the enterprises which regularly had such support from business partners point out to low competition, 60% say that domestic market is moderate competitive and 20% say that it is highly competitive. 42% of the enterprises which occasionally had support from business partners have underlined that domestic market is low competitive, 50% said the it is moderate competitive, and 6% - highly competitive. 46% of the enterprises which

almost never had support from business partners have considered domestic market as low competitive, 39% said the it is moderate competitive, and 8% - highly competitive. In other words, the enterprises which has constant support from business partners estimate their markets as highly competitive opposite to those which does not have any support: the lower the regularity of enterprises' support from business partners, the higher the probability of them having dominant position on the market. Hence the relationships between the level of support from business partners and competition level are opposite to the relationships between competition level and the level of support from regional authorities.

The data allow to make an assumption that the estimation of competition level provided by sellers which belong to different groups (both which have and does not have any support) is asymmetric and depends on enterprise's market position. But the latter turns out to be connected with softness of budget constraints caused by "bailing-out" behavior of authorities, employees and contractors.

What is the relationship between level of domestic competition and a quantity of employees at an enterprise? According to data in Table 1, the majority in each group of enterprises operates in average competitive environment, the high and low competitive markets are a matter of small, average and big enterprises in approximately equal degree, but only small enterprises operate in highest competitive environment.

On our opinion, such correlation provides enough explanations to low levels of correlation between all variables examined above: small enterprises in Russian Federation actually never get any preferences, subsidies etc., despite the variety of programs on their support. Some their business partners are able to soften budget constraints for small enterprises partners on (informal) business groups, as confirm above mentioned results of the analysis.

Table 1.

**Relationship between size of an enterprise and level of a competitiveness on a home market\***

Competition level	Staff number, person			
	Up to 200	201 - 500	501 – 1000	Above 1000
No answer	2 / 3%	4 / 8,6%	2 / 6,8%	1 / 3,2%
Very low	7 / 10,7%	4 / 8,6%	2 / 6,8%	2 / 6,4%
Low	20 / 30,7%	17 / 36,9%	10 / 34,5%	13 / 41,9%
Moderate	26 / 40%	20 / 43,5%	13 / 44,8%	14 / 45,2%
High	5 / 7,6%	1 / 2%	2 / 6,8%	1 / 3,2%
Highest	5 / 7,6%	0 / 0	0 / 0	0 / 0
Total	65 / 100%	46 / 100%	29 / 100%	31 / 100%

\* Number of respondents/part of respondents by column

Since the overwhelming majority of the enterprises are sure they operate in environment with moderate and low competition, the hypothesis formulated at the beginning of the section should be true, if it reflects the following logic chain:

*Dominant market position - soft budget constraints - absence of restructuring - inefficient use of resources.*

The given data confirm the existence of such logic chain in Russian economy.

#### References

Ambrus-Lakatos, L. Notes for an Essay on the Soft Budget Constraint. Davidson Institute Working Paper # 117, June 1997

Bai, Chong-en and Wang, Yijiang. Agency in Project Screening and Restrictions on Project Termination. Mimeo. Boston College, 1998

Che, J. Soft Budget Constraints, Pecuniary Externality, and the Dual Track System. Davidson Institute Working Paper # 320, June 2000

Cheng, S. The Contractual Nature of the Firm // Journal of Law and Economics, 1983, v. 26, n. 4

Desai, R.M., Goldberg, I. The Vicious Circles of Control: Regional Governments and Insiders in Privatized Russian Enterprises. World Bank Working Paper # 2287, February 2000

Dewatripont, M. and Maskin, E. Credit and Efficiency in Centralized and Decentralized Economies // Review of Economic Studies, 1995, v. 62, pp. 541-556

Faure-Grimaud, A. Soft Budget Constraint and Stock Price Information. FMG Discussion Papers 251, London School of Economics, 1996

Forsgren, M., Hagg, I., Hakanson, H., Johansen, J. and Matsson, L.-G. Firms in Networks. A New Perspective on Competitive Power. Acta Universitatis Upsaliens. Studia Oeconomiae Negotorum 38. Uppsala, 1995

Freixas, X., Gusnerie, R. and Tirole, J. Planning under Incomplete Information and the Ratchet Effect // Review of Economic Studies, 1985, v.52, pp. 173-192

Granger, C. Investigating Causal Relations by Econometric Models and Cross-spectral Methods // Econometrica, 1967, n. 37, pp. 424-438

Grout, P.A. Investment and wages in the absence of binding contracts: A Nash bargaining approach // Econometrica, 1984, 52, pp. 449-460

Hellman J.S., Jones G., Kaufmann D., Schankerman M. Measuring Governance, Corruption, and State Capture. How Firms and Bureaucrats Shapt the Business Environment in Transition Economies. The World Bank. Policy Research Working Paper # 2312. April. 2000.

Huang, H. and Xu, Ch. Boundary of the Firm, Commitment and R&D Financing. Mimeo. London School of Economics, 1998

Huang, H. and Xu, Ch. Financial Institutions and the Asian Financial Crisis // European Economic Review, 1999, April

Kali, R. Business Groups, the Financial Market and Modernization. Davidson Institute Working Paper # 325, June 2000

Kapelyushnikov R. Zaderzki zarplaty i ekonomicheskoe povedenie: microeconomicheskyy podhod // Voprosy ekonomiki, № 9, 2000, p. 65-82.

Klein, B., Crawford, R.G., Alchian, A.A. Vertical integration, appropriable rents, and the competitive contracting process // Journal of Law and Economics, 1978, 21, pp.297-326

Kolomak E.A. Subfederalnyy nalogovyye lygoty e eh vleyanie na privlechenie investitsiy: empiricheskyy analys. Naychnyye doклады EERC, № 2K/07, 2000.

Kornai, J. Deficit. Amsterdam: North-Holland, 1980

Kornai, J. Legal Obligation, Non-Compliance and Soft Budget Constraint. - In: Newman, P. (ed). The New Palgrave Dictionary of Economics and Law. London: Macmillan, 1998, pp. 533-539

Maskin, E. and Xu, Ch. Soft Budget Constraint Theories: From Centralization to the Market. Mimeo. Fifth Nobel Symposium in Economics " The Economics of Transition ". Stockholm, September 10-12, 1999

Milgrom, P., Roberts, J. Economics, Organization and Management. Prentice Hall, 1992

Pinto, B., Drebensov, V., Morozov, A. Give Growth and Macro Stability in Russia a Chance: Harden Budgets by Dismantling Nonpayments. World Bank Working Papers # 2324, April 2000

Powell, W.W. Neither Market nor Hierarchy: Network Forms of Organizations. - In: Staw, B.M. and Cummings, L.L. (eds). Research in Organizational Behavior, v. 12, Greenwich, CT: JAI Press, 1990, pp. 295-336

Quian, Y. and Xu, Ch. Innovation and Bureaucracy under Soft and Hard Budget Constraints // Review of Economic Studies, 1998, v. 66, pp. 156-164

Schaffer, M.E. Do Firms in Transition Economies Have Soft Budget Constraints? A Reconsideration of Concept and Evidence // Journal of Comparative Economics, v. 26, n. 1, March 1998, pp. 80-103

Shleifer, A. and Vishny, R. Manager Entrenchment: The Case of Manager-Specific Investment // Journal of Financial Economics, 1988, v. 25, n. 1, pp. 123-139

Simon H.A. Organisations and Markets // J. of Economic Perspectives, 1991, v. 5, n. 2

Tambovtsev V.L. Institutsionalnyy rynek v perehodnoy ekonomike. Doklad, predstavlenyy na 3 Mejdunarodnoy konferentsii «Reformirovanie obschestvennogo sektora», SPbSU, June 2-3 2000

Tambovtsev V.L. K tipologii contractov // Ekonomika e matematicheskiye metody, 1996, t. 32, vyp. 3, with 152-160

Tsukhlo S. Otsenka konkurentnosti v rossiyskoy promyshlennosti: novy podhod, novyye rezyktaty // Promyshlennost, 2000, № 9

Vyplosh C., Ivanova N. Neplatejy: potok, kotoryi zahlestnul Rossiuy. Doclad, predstavlenyy na conferntsee «Economicheskui e sotsialnui reformy v Rossie: evropeysko-rossiyskiy dialog». M.: TASIC, September 11-12 1998

Williamson, O.E. Markets and hierarchies: Analysis and antitrust implications. New York: Free Press, 1975

Williamson, O.E. The Economic Institutions of Capitalism. New York: Free Press, 1985